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HEALTH ATTITUDES AND
PERSONAL HEALTH-CARE DECISIONS IN BOMBAY, INDIA

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ABSTRACT

Utilisation of medical sources other than the modern Western medicine (Allopathy) is characteristic of most societies. Health-care utilisation studies, in medically pluralistic societies, fall short of providing adequate explanation of how and why different medical sources are used. The present thesis is an attempt to delineate the social psychology of the health-care utilisation behaviour of people in Bombay by concentrating on the interplay between the individual, the social environment and the culture. It, therefore, benefits from disciplines both within and outside mainstream psychology like societal psychology, sociology, anthropology and medicine.

The study addresses a twofold question: how are treatment related decisions made and what are their determinants? To answer these questions, an understanding of variables pertaining to the person as well as a consideration of the societal context is necessary. Following a quantitative pilot study, the research involved retrospective data collected with the help of a partially structured questionnaire using a quota sample of 480 Gujarati-speaking adults. The quotas were set for sex, income and illness types. The survey instrument elicited information on predisposing (demographic, social structural, belief and social), enabling (family resources and prior access) and illness (type and manifestation) variables as well as the process of seeking care.

The results, highlight that health-care utilisation behaviour in a medically pluralistic setting is not a singular act but a continuously evolving decision-making process wherein sources are used differentially. Typically, the treatment-seeking process began with the use of non-formal sources, followed by an entry into the professional sector, invariably through an Allopathic family doctor. Subsequently, the individuals either revert back to non-formal sources, continue to remain within Allopathy or exhibit an irreversible shift to non-Allopathic formal sources. Accordingly, there exists a need to redefine health-care utilisation behaviour in terms of sequential patterns of usage.

These patterns, are determined by individually based variables belonging to all three categories as mentioned above. However, in contrast to certain trends, the effect of demographic, social structural and income variable was very small. Between 18-42% of the respondents within each illness cluster, used two or more formal medical systems. Compared to their counterparts who used only one formal system, the multiple users were more likely to suffer from chronic illnesses, rely on lay advice, prefer non-Allopathic systems and already have an access to non-Allopathic sources of care.

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CHAPTER 1
CONTEXT AND ISSUES

1.1. INTRODUCTION

"In all human societies from which we have data, some more or less formal, conscious, organised behaviour is directed at the avoidance and cure of illness, and at the promotion of health." (Kunstadter, 1974 p.683).

Health-related behaviour[1] is a significant aspect of individual and social behaviour and its study is of theoretical interest as well as practical importance to behavioral sciences, including social psychology. On a theoretical level, its understanding provides a meaningful insight into a given culture and reflects some of its basic characteristics and mechanisms. Further, it facilitates a better grasp of the relationship between the fundamental cultural values and health related issues. On a more practical level, its understanding is essential for the effective planning and execution of all activities related to health, ranging from health education and preventive medicine to the provision of primary health care. Needless to say, every health-related activity that involves the co-operation of people - whether they are perfectly healthy, or not - needs to demonstrate an understanding of how they behave and why, as well as how their behaviour may be modified.

For a social psychologist, the study of health-related behaviour is of additional interest. There are tremendous variations in behaviour of individuals faced with

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[1]Broadly defined, health-related behaviour refers to any activity aimed at preventing, controlling and curing ill-health. It is a vast complex of all the clinical and non-clinical activities in the sphere of health. Several social scientists (e.g. Mechanic and Volkart, 1961, Kasl and Cobb, 1966) have classified health-related activities into "health behaviour", "illness behaviour" and "sick-role behaviour". Whereas the term "health behaviour" refers to the preventive actions undertaken prior to the onset of illness, the latter two terms cover activities which follow recognition of illness. In short, the term health-related behaviour as employed here is comprehensive enough to cover all three types of behaviour.

apparently similar health-related problems. These variations are considered a function of several determinants ranging from the characteristics of individuals to socio-cultural and physical environment. The present study attempts to understand a specific aspect of health-related behaviour - **utilisation behaviour** - by focusing on the socio-cultural and individually based determinants. In a nut-shell this thesis is about treatment-seeking, i.e. health-care utilisation behaviour in urban India. It focuses on respondent's decision-making process and treatment choices, and how they relate to the socio-cultural patterns. The study indicates that the health-related activities both at the structural and individual levels are to a large extent culturally patterned. This is borne out by the fact that in India, divergent medical systems of western and Indian origins (see Appendix 1 for definitions) through mutual interaction over the years have developed certain common features as a result of the specific cultural milieu in which they operate.

The term utilisation behaviour refers to the curative actions directed at controlling ill-health and/or restoring normality in health. Other activities such as the sustenance of sound health or the prevention of illness do not fall within its scope. Therefore, the focus is on the deliberate therapeutic activities of individuals. Mechanic and Volkart's (1961) exposition of "illness behaviour" provides a useful comparison to the above definition. According to them, "illness behaviour" is,

> "the way in which symptoms are perceived, evaluated, and acted upon by a person who recognizes some pain, discomfort or other signs of organic malfunction" (p.51).

Although there is an overlap, the differential emphasis of the two aforementioned definitions will have to be borne in mind. The definition invoked here assumes perception and evaluation of symptoms to be implicit in all actions manifesting

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health-care decisions. Therefore, this study focuses principally on the course of treatment-seeking that follows the perception of changes in biological and/or social functioning and a need to re-define the health status. For this reason the term utilisation behaviour has been preferred to that of illness behaviour for the purpose of the study. Moreover, the expression illness is used here as a generic term to refer to anything which is outside the boundary of normal health. The term is, therefore used synonymously with illness condition and ailment. This is in accordance with other studies (e.g. Gould, 1957; Nichter 1977; Heggenhougen, 1980; Blaxter, 1983). Illness is conceptualised here as the behavioral expression of bio-chemical and/or physiological malfunction, i.e. disease. As opposed to the term *disease*, which denotes a clinical definition, *illness* is socially defined and may reflect individual and socio-cultural variations in orientations (see Appendix 2 for details).

All health-related activities, including utilisation behaviour originate in the societally held conceptions and theories of health, illness and treatment. Since an illness situation poses a potential threat to the well-being of the individual members, all cultures have developed strategies for conceptualising, evaluating and adapting to and controlling ill-health. This constitutes the medico-cultural milieu. One manifestation of this milieu is a medical system. It is a

> "patterned, interrelated body of values and practices, governed by a single paradigm of meaning, identification, prevention and treatment of sickness" (Press, 1980 p.47).

Ill-health, by definition is negatively perceived and calls for ameliorative actions. These

> "sociocultural adaptive strategies bring into being medical systems, the culturally based behaviour and belief forms that arouse in response to threats posed by disease" (Foster and Anderson, 1978 p.33).

As such, a medical system is an artefact of a specific cultural milieu and usually

covers the entire range of health-related activities. It offers a cure as much as attaches meaning to an illness in culturally relevant terms (see Appendix 3 for definition and role of a medical system). Broadly speaking, during the initial stages, it offers information as well as explanations about the illness. Subsequently, it offers treatment of the illness and preventive measures to curtail future relapses.

The medico-cultural milieu of most societies, primitive and modern, comprises more than one medical systems and/or traditions. Collectively these systems exercise a major influence on peoples' health-related behaviour. It has been recognised in recent decades that this coexistence of medical sources is a norm rather than an exception in modern societies. Hence, it would not be an exaggeration to say that all societies are **medically pluralistic**. The pluralistic structure of most societies has emerged over many centuries, wherein one or more medical systems - often originating in other cultures - have been added to existing ones (see Appendix 4 for emergence of pluralism in India). Even in societies where only one formal medical system is officially recognised, a multitude of formal and non-formal sources are available through nongovernmental bodies. Therefore, in these societies, individuals regularly seek care both from within and outside the organised health-care system. To illustrate, in the U.K., people seek treatment from Allopathic (i.e. modern Western medicine) doctors within both the National Health Service and the private sector, from chiropractic and homoeopathic practitioners and others practising different forms of *alternative medicines* and from non-formal sources like nurses, chemists, relations and friends (see Helman, 1984 for detailed description of medical pluralism in the UK).

However, one should be careful not to overlook the following distinction.

Although medical pluralism is a pervasive phenomenon, not all societies are characterised by the official patronage of several medical systems to an equal degree. The official recognition and patronage of several sources is usually referred to as "structured coexistence" i.e.

> "a situation where, under legal or other official regulation, the parallel existence of two or more separately conceptualised therapy system has been set up, especially with regard to their respective practitioners" (Unsculd, 1980 p.15).

In the present study, the focus is on this structured variant of pluralism. Therefore, the expression 'nonpluralistic' in this study refers to countries where, although medical pluralism exists in reality, it is not officially recognised. In other words, in pluralistic countries, there exist, officially, more than one formal medical system or tradition - either in competition or in complimentary relation with each other.

The medical culture of India[2] is an example of such structured coexistence. Not only have different systems originated and developed in India, alien systems have also been adopted and supported by the Indian people (discussed at length in section 1.3). Moreover, different governments have also promoted education (at the university level), research and the distribution of diversely conceptualised systems of medicine, both indigenous and alien medical systems. In contemporary India,

> "integration of the various systems of medicine - indigenous or otherwise - is already institutionalised at the national and state levels, in universities and other training centres, and in the utilisation of all types of personnel in health care delivery systems in the rural areas, and in drug manufacturing establishments" (W.H.O. 1978, p.13).

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[2]According to Field (1976, p.82),
> "a society may, and often does, have more than one medical system, and they may well overlap each other, but it may be argued that the totality of such systems constitutes the medical system of that society".

In order to avoid confusion, in the present study this is referred to as the medical culture of a society. The term medical system is reserved for individual medical paradigms.

This makes medical pluralism in India unique. The Indian government patronises both the Allopathic and non-Allopathic systems as parallel entities with legal and financial support. This contrasts with China, where the government is actively encouraging the integration of Allopathic and indigenous medicine. Moreover, as will be discussed in chapter 3, medical pluralism in India exists at two levels. Whereas the multiplicity of medical systems and traditions that are made available to the consumers constitutes the first level, the equally large number of sources of treatment within each of these systems reflect the second level of medical pluralism in India.

Given the existence of medical pluralism, how it influences the utilisation behaviour of the people is of main interest in this study. Although the coexistence of medical sources offers a wide range of treatment options, it would be wrong to infer that medical pluralism encourages people to utilise sources indiscriminately. One of the aims of this study is to assess the relative utilisation of Allopathic and non-Allopathic sources in the medically pluralistic context of India. In other words, given that at the conceptual level the Indian world view embodies pluralism, this study attempts to examine its manifestations at the behavioral level. A related but more latent aim of the study is to examine how different medical paradigms operate, individually and collectively in a medically pluralistic milieu. There are three possible outcomes, namely,

i)   compartmentalisation resulting in survival of paradigms in their independent forms
ii)   disappearance of some paradigms and dominance of others
iii)   synthesis arising from mutual interactions .

The present study postulates that these systems interact rather than compete as a result of the common cultural context they share.

1.2. THE STUDY

The availability of different medical systems and traditions in a pluralistic society presents a challenge to the study of utilisation behaviour. The coexistence of distinct and to some extent incompatible paradigms of therapeutic options has evinced interest in the field of medical pluralism from diverse disciplines. This is reflected in the numerous perspectives and foci of concern that have arisen in the field (see Appendix 5 for details). The present study therefore draws from disciplines of medical anthropology, medical sociology, medicine as well as psychology.

As will be discussed in chapter 2, there are very few relevant models or well integrated theories which are geared to studying utilisation behaviour in a medically pluralistic setting. It is crucial that any attempt to study utilisation behaviour in a pluralistic setting takes into account both the dynamic processes within an illness as well as the different permutations arising out of the multiplicity of treatment options. However, researchers often view utilisation behaviour as a singular act and not necessarily as an active process involving a series of curative actions. Needless to say, illness of any kind is negatively valued. Hence, when recognised, it calls for ameliorative actions including searching for and using one or more sources of treatment. Often, there may be one or more diagnoses, evaluations and treatment strategies during the course of an illness. Therefore in the present study, utilisation behaviour is conceived of as entailing a series of voluntary decisions made by patients either individually or in consultation with their lay network.

Underlying any utilisation behaviour is a sequential decision making process, the starting point of which is the disruptive effect of illness. That is to say, once any deviation from the desired level of health is perceived, decisions pertaining to

treatment of an illness are made in stages (chapter 2 discusses relevant stage models in detail). The first stage involves a decision whether to seek care or not, and if so, from where. The outcome is the use of one or more sources of care, for example, a visit to a doctor practising Allopathy. The first stage is deemed to continue until the individual decides to reconsider and make alterations to the treatment, thereby going to the second stage of the decision process. In the second stage, the individual decides to either withdraw completely or to continue seeking treatment by replacing the current strategy with a new one whenever desired. As in the first stage, the individual again has the option to abandon the current strategy for a new one. This process of evaluation and alterations continues to take place until the individual decides against making any alterations to the treatment. The consequence of this iterative decision process is the **pattern** of utilisation behaviour.

Socio-culturally oriented investigations have identified different patterns of utilisation behaviour in nonpluralistic and pluralistic societies. Broadly speaking, it is possible to identify two **types** of patterns in a medically pluralistic society. These are the **exclusive** and **multiple** types. The use of only one source of treatment during an illness is termed exclusive usage. However, in many medically pluralistic societies, people often use more than one source to control and cure sickness. This is referred to as multiple utilisation[3].

People could be using multiple sources under different circumstances. They may use one source for one illness and another source for a second illness. Usage of this kind is illness specific and therefore is called **dependent** usage. Alternatively,

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[3]In nonpluralistic societies, the use of sources other than those recommended by professionals is referred to as multiple utilisation. To illustrate, Olsen et al. (1976) have labelled a current "doctor shopper" (multiple user) as any individual reporting (in one year) the use of second physician without referral from the first one.

people may use more than one source during a single illness and this may be called **within** an illness usage. Illness dependent users would be multiple users when viewed across several illnesses. But they would be treated as exclusive users when viewed in terms of specific instances of illnesses. Within illness usage may be either exclusive or multiple type. In the latter, the deployment of sources may either be **sequential** or **simultaneous.** Either of these patterns are a result of the changing course of an illness and the alterations in treatment strategies.

The study aims to assess the nature, extent and patterns of both exclusive and multiple utilisation behaviour within an illness. Although the coexistence of several medical traditions is widespread in most countries of the world, its impact on utilisation behaviour within different illnesses has not been adequately dealt with. While most studies involving large samples tend to concentrate on illness dependent usage, the within illness studies are generally based on very small samples and cover selected illnesses (see Appendix 6 for details). Moreover, most Indian studies concentrate on illness dependent usage. As a result, questions of the following nature remain unanswered. Is utilisation behaviour within different types of illnesses an undifferentiated mass of random movements? Typically, are all sources used at once or does their use follow a pattern? If yes, how are these patterns made? Does medical pluralism lead to extensive multiple utilisation within an illness? What are the important determinants influencing different patterns of utilisation behaviour? The present study attempts to answer such questions by obtaining detailed information on the unfolding of the illness, corresponding reactions and cumulative health seeking strategies.

At least two sets of factors seem to influence the types (exclusive and

multiple) and patterns of utilisation behaviour (e.g. movement from Allopathic to *Ayurvedic* or another indigenous system). These pertain to the individual and the socio-cultural   domains. The importance of the **societal context** cannot be overlooked in any study on individual behaviour. Its influence on an individual's utilisation behaviour is even more predominant. This emphasis on the socio-cultural dimension echoes the growing concern amongst some social psychologists about the trend to focus on the individual or small groups at the expense of the socio-cultural environment. "Societal Psychology" a recent variant within social psychology, recommends that the approach should be "more outward-looking" (Himmelweit, 1990 p.42), i.e, recognise the importance of social and cultural aspects. In addition to the cultural component, a person's choice of treatment sources is influenced by a variety of individually based psycho-social and economic as well as illness related variables. It is postulated that individual's '   health-care decisions are influenced their **predisposition** towards different medical systems, their **means** to obtain required care and the nature of **illness**. The inclusion of illness as an independent variable need hardly be emphasised. Illnesses are not alike and vary in terms of their characteristics and course. An investigation which recognises the differences between illnesses as well as is sensitive to progressive elements within an illness is necessary. Yet, researchers often tend to neglect this. The present study attempts to overcome this by focusing on the deliberate therapeutic health seeking behaviour of individuals across twelve physical illnesses - selected on the basis of the pilot-study - which vary in terms of their characteristics[4].

The utilisation behaviour of an individual - as postulated by the present study -

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[4]This study excludes mental illnesses. See Kapur (1979) for description of mental health care and treatment-seeking in India.

is essentially a reflection of these two sets of factors and interactions between them. Very few attempts have been made to develop a more inclusive framework which incorporates these components. The majority of studies focus on the impact of merely one or two of these variables in isolation, thus providing a fragmented understanding of the phenomenon. Only a multi-dimensional framework which locates several individually based variables within the medico-cultural milieu can cope with the complexities inherent in the phenomenon of utilisation behaviour. The present study attempts to develop such a framework.

Since the nature of utilisation behaviour is contingent on the availability of a multiplicity of sources, it seems appropriate to develop and test the multi-dimensional framework in an urban setting. As Landy (1977 p.469) has mentioned, the

> "culture and multiplex social organisation of cities provide opportunities for a
> wide variety of curers to flourish".

Generally speaking, villagers in the pluralistic countries tend to begin with non-Allopathic sources followed by Allopathic ones whereas those in the nonpluralistic countries exhibit the opposite patterns. It can therefore be deduced that, excepting emergencies and serious illnesses, people first use what is available. But, what happens in a modern city in a pluralistic country where both types of sources are almost equally accessible? Unfortunately, very few attempts have been made to understand utilisation behaviour in an urban setting where the process of modernisation is as striking as the continuation of tradition, as reflected in the health services.

Despite the universal acceptance of Allopathy[5], the non-Allopathic systems have continued to survive in most societies. They are used amongst the most unlikely groups like the urban dwellers[6], the educated[7], and in the nonpluralistic countries[8]. They are being used even when Allopathic treatment is either free or when non-Allopathic sources are more expensive[9]. Contrary to the popular belief,

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[5]Though at first there was considerable hostility towards Allopathic medicine in developing societies (e.g. Paul, 1955), numerous studies have documented overwhelming support for Allopathy in recent years. It has been reported that in countries like India "insatiable demand for modern medical care has been created" and people are "withdrawing their patronage from the traditional system of medicine even when they are comparatively cheaper" (Bhatia et al., 1975 p.19). At times people have shown greater faith in powers of Allopathy than Europeans would (e.g. Shuval et al., 1970). Basically, there is sufficient evidence to suggest that when reasonably good quality Allopathic care is available and is easily accessible, it has been readily accepted in India (Gould, 1957; Madan, 1969; Bhatia et al., 1975; Banerji, 1975; Bhardwaj, 1975; Ramchandran and Shashtri, 1983) and abroad (Lee 1974, 1980 in Hong Kong; DeWalt,1977 in Mexico; Chen, 1981 and Heggenhougen, 1980[b] in Malaysia; Morsy,1981 in Egypt; MacLean,1966 in Nigeria).

[6]In urban and rural India, Jeffery (1977) has noted that, "Even where there are allopathic competitors, nearby vaids are able to maintain sizable practices" (p.570). Patients from urban areas often travel to rural area to obtain treatment from indigenous source (Nichter, 1981[a]).

[7]For example, nearly three out of four clients (74%) of an Ayurvedic practitioner in India were literate (Nichter, 1981[a]). The educated students in Ghana regularly visited prophets (Jahoda, 1974) and the university teaching staff in Hong Kong resorted to the Chinese practitioners (Lee, 1980).

[8]For example, in the U.K. one in seven people sought non-Allopathic medicine in 1985 (Which?, 1986). According to Kunstadter (1974),"Western middle-class people use massive amount of non-professional and unorthodox treatment systems" (p.379). Throughout the U.S.A. and the western Europe, Chinese medicine is available and is utilised by people (Unschuld, 1987), so also are the chiroprats (Firman and Goldstein, 1975; Kane et al., 1974), osteopaths (Hoag et al., 1969), mesmerist (Cassee, 1970), Christian Scientists and Homoeopaths (who also enjoy royal patronage in the UK).

[9]Despite the availability of cheap Allopathic treatment, more expensive indigenous alternatives were preferred in India (Nichter, 1981[a]) and abroad (e.g. Cunningham, 1970 in Thailand; Jain, 1973 in Malaysia; Frankenberg and Leeson, 1974 in Zambia; Creygton, 1977 in Tunisia).

neither do the non-Allopathic practitioners spend more time with their patients, nor

offer lengthy explanations, and yet they seem to be popular[10]. Moreover, although

a need to understand "the reasons for the persistence of folk medical practices in the

most sophisticated urban cultures" (Gould, 1957 p.507) was identified long ago, as

recently stressed by Ramesh and Hyma (1981),

> "very little is known about the way the two divergent approaches (modern
> medicine vs indigenous medicine) to healing operate side by side in the same
> metropolitan setting" (p.71).

Only a handful of studies have tried to identify the reasons for persistence and

success of indigenous systems in the urban situations where the Allopathy is not only

available but is well established as a form of care.

India has the third largest urban population in the world with about 25% of

the national population living in the cities. Most studies on utilisation behaviour in

India have been carried out in rural areas, thus ignoring the urban areas which are

the economic, political, social and medical centres of the nation. Given the medical

scenario in India, a wide variety of Allopathic and non-Allopathic sources are both

available and accessible only in the urban areas. For example, at the national level,

80% of the qualified doctors practise in urban areas (Bhatia et al., 1975), 72% of

hospital based health-care is concentrated in the cities (Ministry of Health, 1982).

According to Bhatia et al. (1975), there are

> "8-10 times more institutional facilities and 12 times more hospital beds"
> (p.15)

in the urban areas. At the state level nearly 92% of the hospitals and beds in the

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[10]This has been observed in India (Neumann et al., 1971) and aborad (e.g. Press, 1971; Cosminsky and Scrimshaw, 1980; Finkler, 1980; Heggenhougen, 1980; Lieban, 1981). Press (1971) and Finkler (1980) found that although the patients did not necessarily understand what the practitioner was doing, they continued to seek care from them.

state of Maharashtra (of which Bombay is the capital) are based in the urban and semi-urban areas (Ministry of Health, 1982).

Considered to be the most cosmopolitan Indian city, Bombay[11] is a leading medical centre where the concentration of formal and non-formal health-care options is one of the highest in the country. It ranks amongst the most medically advanced cities of the sub-continent with some of the most reputed educational institutions, sophisticated hospitals and research laboratories, leading practitioners, experts and specialists. Medical pluralism in Bombay, as will be discussed in chapter 3, is marked by the presence of many kinds of modern and traditional, expensive and economical, specialised and general sources of treatment.

The present study explores in a comparative perspective different patterns of utilisation behaviour of a cross sectional sample of Gujarati-speaking[12] adults living in south Bombay. By selecting a small geographical area, variations arising from differential availability have to some extent been controlled. Being the oldest and the

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[11]It is the capital of the State of Maharashtra and the most industrialised and urbanised city of India. One sixth of the factories in India are situated in Bombay. Bombay rose to prominence as a commercial capital of India during the British Raj. At present, a third of the Central Exchequer revenues come from Bombay. Its cosmopolitan nature is most evident in the fact that unlike any other Indian city, more than half of its population does not speak the native language (Bose, 1973). It is often likened with New York. It is comparatively huge, sprawling and packed yet its vitality is unparalleled. With its population of over 12.5 million, it is the most populous city in India. It has 1.2% of the national and about 5% of the total urban population (U.N., 1989 p.128). With the present rate of growth (4% a year), it is expected to double its population before the turn of the century.

[12]Less than half of the population of Bombay (48%) speaks Marathi - the official language of the Maharashtra state. Out of the 52% who do not speak Marathi, the Gujarati-speaking community is the largest (Bose, 1973 p.159). As a linguistic group, they form more than 21% of the total and 40% of the non-Marathi speaking population. Although certain religious groups (e.g. Parsi) speak Gujarati, all those included in the sample were either Hindus or Jains.

most densely populated area of Bombay[13], the allocation and distribution of the health services resource in south Bombay, is equally dense and antiquated (many date back to pre-independence days). To illustrate with the following statistics (Brihanmumbai Mahanagarpalika, 1987[b]) from the Public Sector Allopathic and non-Allopathic care. Firstly, all four Government hospitals (with nearly 2500 non-maternity beds) are located in the south Bombay. Secondly, although only three out of thirteen Municipal Hospitals are in south Bombay, their total capacity (over 2000 non-maternity beds) exceeds that of their suburban counter-parts (less than 1800 beds). Thirdly, three out of the four specialist Municipal hospitals are in south Bombay. On the non-Allopathic front, the picture is very similar. Except Homoeopathy, all the Public Sector non-Allopathic services are located in south Bombay.

1.3. THE SETTING: MEDICAL CULTURE OF INDIA

In order to understand the health behaviour of a people, it is necessary to grasp the circumstances in which it unfolds. As Pellegrino (1963) put it,

> "The medical behaviour of individuals and groups is incomprehensible apart from general cultural history" (p.10).

Therefore, a familiarity with the political history of the nation and the theoretical frameworks of various medical systems is essential to fully comprehend the

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[13]It is the oldest and the most densely populated area of Bombay and exhibits a sharp contrast between old bazaars and gleaming sky-scrapers. Although, Greater Bombay is spread over an area of 437 sq.km., nearly 40% of its population lives within less than 16% of the total land area (69 sq.km.) in south Bombay. The mean density (per sq.km.) of this area is 48,000 as against almost 16,000 in the Suburbs and about 10,000 in the Extended Suburbs. The oldest section (from where the city grew), situated in the heart of south Bombay has an average density of over 150,000 per sq.km.! It is also the single largest employment zone as more than 75% of the job market is estimated to be situated here.

complexity of the present Indian medical culture. The following gives an overview of the cultural and structural context in which utilisation behaviour takes place. It outlines the heterogeneous character of India's medical culture by setting out the appropriate historical, theoretical, and social backgrounds. It also deals with issues such as the extent to which the various options form any kind of coherent medical culture and how they are related to each other in terms of their common underlying values. It suggests that despite the heterogeneity in the medical traditions, numerous similarities have arisen among them due to their coexistence for centuries.

1.3.1 A DESCRIPTION

Although there is a vast and rich heritage of medical traditions, as Jeffery, (1988) put it,

> "there are no good accounts of the Indian health system in the literature on comparative health systems or on health systems of individual countries, or regions" (p.1).

A variety of complex beliefs, attitudes and practices of independent medical systems originating in diverse cultural backgrounds have mingled with each other and generated an interdependent medical culture (see Appendix 4 for details). As a result, a plethora of medical sources have coexisted through the centuries and continue to flourish in independent India. Collectively, they meet the essential health related needs of its heterogeneous and rapidly growing population.

The Indian medical culture is a cumulative output of many heterogeneous ideas and practices, from both indigenous and alien traditions. Contrary to popular belief, medical pluralism existed in India before the introduction of "western" medicine. Traditionally, the Indian medical culture represented a multitude of indigenous (*Ayurveda, Siddha, Emchi, Yoga*, regional and religion based tribal, folk,

herbal and spiritual systems), and eastern orthodox traditions (e.g. *Unani-tibbia*). Western medicine, when it was introduced in India in the 19th century, was essentially pluralistic in character. It represented several paradigms ranging from Homoeopathy, Naturopathy, Hydropathy, Galvanism, Mesmerism and humeral tradition. All these eastern and western systems continue to exist and characterise the plurality of the health-care delivery structure of India.

It is not surprising that several rudimentary medical techniques (like massage, incisions, witchcraft, herbalism, shamanism, cauterisation) were developed independently in the different societies of the world (Laughlin, 1963) and continue to be in vogue to the present day. But societies like India and China are exceptions to this general rule. Besides such basic practices, these societies have developed theoretically sophisticated medical doctrines which have survived through the centuries. These indigenous doctrines which have evolved out of their respective cultural contexts, resemble the scientific and rational approach of Allopathy rather than the folk traditions. The indigenous medical systems of India like *Ayurveda* and *Siddha* (see Appendix 7 for the theoretical and conceptual frameworks of various medical systems and traditions which are present in modern India) fall into this class. Their complex theoretical basis has been preserved and continue to be taught and practised by professionals today.

Unlike the situation in many developing countries, there has been a relatively long tradition of western medicine in India (Marriott, 1955). Despite the existence of deeply embedded indigenous medical doctrines, the Allopathic system has surpassed

all the others in terms of its popularity[14]. Various reasons can be attributed to this.

Decrease in the rate of mortality (from 17.4 to 14.8 per thousand) and increase in life

expectancy (from 32 to 51-52 years) during this century are held by many to be a

proof of the effectiveness of Allopathic medicine. But according to Jeffery (1982),

> "the superiority of Western medicine follows not from its scientific advances but because it is more closely linked to the class interests of the political leadership in the country" (p.1835).

Whatever the reasons, it is true that compared to the non-Allopathic systems,

Allopathy enjoys greater support from the Indian governments. It has been made

available to all either free of charge or at a nominal cost. An extensive network of

primary health-care centres and family welfare programmes and community health

volunteer schemes both in the rural and urban areas have increased the demand for

Allopathy. Moreover, Allopathy enjoys several other advantages over its indigenous

counterparts. While the interaction and transfer of knowledge amongst various

indigenous systems is severely restricted and confined to local regions, Allopathy

benefits from advances made in different countries owing to its world-wide use.

In India, the dominance of Allopathy has not meant the displacement of other

medical systems (see Table 1.1). The Central and State governments continue to

emphasise the revival and promotion of the non-Allopathic systems. Statutory bodies

like the Medical Council of India and the Indian Medical Association regulate some

of the functions of non-Allopathic systems. The Central Committee on Research in

Indigenous and Homoeopathic Medicines (C.C.R.I.), is responsible for the planning,

development, training and delivery of health services based on these systems. About

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[14]Although, Homoeopathy was developed and imported into India later than Allopathy, the post-nineteenth century version of Allopathic system (which resembled its modern day counterpart), was introduced around the same time as Homoeopathy.

Table 1.1: RESOURCES OF THE FORMAL MEDICAL SYSTEMS: STATISTICS

	Allopathy	Homoeo pathy	Ayurved	Unani	Siddha	Yoga	Naturo pathy
Institutionally Qualified Practitioners-	297,228	46,619	119,361	10,269	1,613	NA	NA
Total Registered Practitioners	297,228	151,137	232,227	30,454	18,190	NA	NA
Average Annual Addition of Practitioners	12-13,000	9,000	3,500	600	75	NA	NA
Colleges & Institutions	106	NA	95	16	1	34	3
Post Graduate Institutions	NA	NA	17	2	1	-	-
Post Graduate Admission Capacity	3851	NA	200	17	1	-	-
Total Admission Capacity	NA	NA	3,306	535	75	1,800	45
Hospitals	7,369	NA	276	19	76	3	7
Total Beds	514,989	NA	9,783	627	708	40	160
Dispensaries	15,257	NA	12,118	990	427	-	43
Indigenous Medical Practitioners under Employee State Insurance Scheme	NA	NA	1,181	-	-	-	-
Research Units	NA	NA	90	34	12	-	-

NA = NOT AVAILABLE
Statistics based on: (1) WHO, 1978; 1981. (2) Ministry of Health and Family Planning, Health Statistics of India, 1982

9000 Ayurvedic dispensaries and 195 hospitals are being supported by the government and "there are about 500,000 practitioners of traditional medicine in India," (Udupa 1975, pp.64-5)[15]. Although this emphasis may be partly due to the need to create a more cost-effective health service and to reinforce cultural identity, it is also due to the continuing demand for non-Allopathic systems amongst all sections of the population. For example, in North Indian villages, Marriott (1955) estimated that the indigenous medical systems were patronised a hundred times more.

During its long history, a lot of regional variations have emerged in the growth, adaptation and spread of different medical traditions (Institute of Applied Manpower Research, 1967). The *Siddha* system which is of Dravidian origin is concentrated in the Southern regions. The Tibetan system of *Emchi* is popular among the people in the hilly regions of the North. The *Unani-Tibbia* system, introduced by

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[15]The Government of India (1985) estimate is 230,000.

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the Muslims, is more prevalent in the Northern regions. The Homoeopathic system with its long legacy of patronage amongst the Bengali intellectuals, continues to be prevalent in eastern India and one finds more Homoeopathic practitioners there than in the rest of the world. In Andhra Pradesh, healers practising tribal and folk medicines outnumber those of the four secular systems.

The *Ayurvedic* and Allopathic systems are the only two kinds of medicine which are widespread across the length and breath of the country. Yet, they are marked by different degrees of popularity. Since medical systems receive unequal support from various administrative bodies, there are variations in their distribution and popularity. In the state of Maharashtra for example, there are 217 government run Allopathic hospitals with a total of 37,345 beds for in-patients, whereas there are only two Unani hospitals with 140 beds (Ministry of Health and Welfare, 1982). In some of the northern states, the number of *Unani* practitioners is four times that of the Allopathic and ten times that of the *Ayurvedic* ones. In the southern states, there is almost total absence of any provision of care based on *Unani*. Similarly, the Municipal Corporation of Bombay spent 67 times more for the out-patient departments of Allopathic dispensaries than on all the non-Allopathic dispensaries put together during the year 1988-89 (Brihanmumbai Mahanagarpalika, 1989). The expenditure on Ayurvedic, Unani and Homoeopathic dispensaries in relation to the Allopathic dispensaries was 0.7% 0.6%, 0.3% respectively. The outcome is the retarded growth of these systems in comparison with other regions of the nation.

1.3.2. IMPACT OF MEDICAL PLURALISM

"When there is contact between cultures, ... the response is a mixture of co-operation, conflict and compromise" (Igun, 1982 p.769). The story is not

significantly different when the medium of contact is the variety of medical systems in a society. Since some features of the non-Allopathic systems (like the costumes of practitioners, their techniques, medicine, rituals) stand in striking contrast, most studies have emphasised these either on their own terms or in contrast with Allopathy. Marriott (1955) was amongst the first to draw attention to the similarities and differences between the Allopathic and magical medicines in India. He has pointed out the sharp contrasts between the two "in attitudes toward technical activities". For example, whereas the technical competence enhances the practitioner's prestige in the West, this is not the case in the Indian context.

Often the differences between systems go deeper than these symbolic features (see Jones, 1977 for examples). Their concepts of health, disease, normality, deviance and sick-role, criteria of success and failure, underlying values and assumptions and teaching methods are significantly different. The logical structure underlying the methodology and the guiding principles behind the practitioner's critical judgements are also different across various systems. Likewise, the labelling and categorisation of diseases, their attribution of causes, basis of diagnosis, orientations of physicians etc. tend to vary as well. Similarly, there are variations in the complex structure of institutions and professional bodies.

This emphasis on differences between the Allopathic and non-Allopathic systems has resulted in the failure to recognise some of the striking similarities. The following section highlights the emergence of commonalities as a result of interaction between the divergent systems in India. Infiltration of one system by another, though arguably to a limited extent, has been observed in societies where more than one medical systems coexist. This can take two forms, namely the indigenisation of

Allopathy and westernisation[16] of non-Allopathic systems. Examples of both types

of interactions have been observed in countries where more than ⌐one form of medical

systems coexist. To give examples of indigenisation of Allopathy, nearly, 17% of the

Allopathic doctors (N=132) in Thailand recommended their clients to use non-

Allopathic medicines (herbal and occult) for treatment (Smith, 1982). The aim was

to not only facilitate the Allopathic treatment, but also to take advantage of their

medicinal properties. Amarasingham (1980) observed that Allopathic doctors in Sri

Lanka not only recommended their patients to combine indigenous and Allopathic

sources but often employed local terminology while discussing illness. To illustrate

the process of westernisation of non-Allopathic systems, Chinese medicine has

adopted

> "all the institutional apparatus of modern medicine - hospital, clinics, legal
> standards, professional organisations - to serve the improvement and hence
> preservation of the national medicine" (Croizier, 1970 pp.280-1).

Similarly, the traditional practitioners in Malaysia not only use Allopathic instruments

but also electrical equipment for Acupuncture, and set up their practice in modernised

offices (Chen, 1981). Similar examples of westernisation of traditional systems have

been noted in countries like Thailand (Cunningham, 1970), Zambia (Frankenberg and

Leeson, 1974; Jones, 1977) and Guatemala (Cosminsky and Scrimshaw, 1980).

1.3.2.1. INTERACTIONS BETWEEN DIVERSE SYSTEMS: A CASE OF INDIA

Although the differences among various medical systems are emphasised on

account of their more apparent nature, one should be cautious not to exaggerate them.

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[16]Obeyeskere (1974) hesitates "to call the emulation of the Western model by ayurveda a modernising process"(p.420), so the term 'westernisation' has been preferred here instead.

There are many similarities between these systems in India because of the common cultural platform they come to share. This will become evident while considering the following examples pertaining to the indigenisation of Allopathy and westernisation of the non-Allopathic systems. These interactions take place at two levels of the medico-cultural milieu, namely the structural (institutions and practitioner levels) and individual (conceptual and behavioral domains at the consumer level).

As the following shall illustrate there has not been a "one way system of *impact*" (Mendelsohn, 1974 p.666) - from Allopathy to indigenous systems - but a two way interaction between various systems in India.

On one hand, the westernisation and professionalisation of *Ayurvedic* practice is but one example of the infiltration of one system into another in a pluralistic medical culture. In India, the preservation and improvement of indigenous medicine and the increasing demand for these services from its clientele have induced the *Ayurvedic* system to incorporate aspects from other systems, especially the Allopathic. The result is that *Ayurvedic* practice in modern India does not necessarily conform to the theory of *Ayurveda* as described in the classical texts. The professionalisation of *Ayurvedic* and *Unani* systems, wherein

> "its practitioners are trained in colleges, join professional associations, prescribe commercially manufactured drugs, serve governmental health agencies, work in hospitals, write articles for medical journals, and do other modern professional things..." (Leslie, 1974 p.92)

is a product of the demands from social forces as much as an outcome of their interaction with Allopathy, and the impact of modernisation in general. The use of injections in the modern day *Ayurvedic* practice in India is an outcome of the interaction with Allopathy. Similarly, Allopathic understanding of physiology, anatomy, aetiology etc. have influenced corresponding *Ayurvedic* concepts.

Apart from incorporating techniques and practices of Allopathy, non-Allopathic systems have influenced functioning of each other. For example, *Unani* and *Ayurveda* have influenced each other during their long history of coexistence (Basham, 1976) especially during Muslim rule (Metcalf, 1985). The *Ayurvedic* system has adopted several diagnostic techniques and pharmacopoeia from the *Unani* system (Leslie, 1974 pp.89-90). Similarly, Homoeopathy has been "naturalised" in India (Bhardwaj, 1981) and "its practice assimilates elements from *Ayurvedic* and *Unani* traditions ..." (Leslie, 1974 p.93). The lay, folk and popular medicines have also "altered classical doctrines" of *Ayurveda* (Tabor, 1981 p.441). Occasionally, such infiltration extends even into the sacred sources of care (Godwin, 1972).

On the other hand, the interaction may lead to indigenisation of Allopathy. For example, in India during the early days of the Raj, Western doctors learnt the art of rhinoplasty from *Ayurvedic* practitioners (Basham, 1954). The "professionalisation" of the *Ayurvedic* and *Unani* systems is paralleled by the "deprofessionalisation" of Allopathic medicine (see Jeffery, 1977 for a comprehensive analysis). According to Leslie (1974),

> "modern scientific medical institutions have themselves developed in a distinctive manner because they have assumed that *ayurvedic* and *Unani* institutions were there doing medical jobs Indian society wanted and needed to have done" (p.101).

Nichter (1977) too, has described how an Allopathic doctor in South India has modified his practice to meet the requirements of local traditions. As pointed out by Minocha (1980),

> "To a critical observer, the manner in which modern medicine is practised in various institutional frameworks in India, has a distinctly Indian flavour and is not a replication of *western models*" (p.222).

Compared to other non-indigenous systems, it retains its essential features and stands

out as a contrasting system. Yet, on closer examination, certain underlying trends towards its indigenisation can be detected. As will be seen, this process of transformation which creates a uniquely "Indian" identity is clearly visible in all areas of health-care delivery and utilisation of Allopathy. The indigenisation of Allopathy is not limited to its delivery aspects but extends far beyond this. In the words of Banerji (1985),

> "It is surprising *how little* there is in common between the Western Model and that which is obtained in India. Perhaps the only feature which is common between the two is that both use some elements of medical science" (p.xi).

Allopathy is otherwise believed to be "discontinuous from ordinary social processes" (Press, 1978 p.71). In the Indian context, it has shown remarkable openness to accommodate an array of other medical paradigms.

1.4. SUMMARY

The above discussion challenges the view held by many that coexistence of multiple systems results in competition between seemingly incompatible systems - each system trying to hold on to the allegiance of the community. It suggests that despite theoretical differences, medical systems share several common features as a result of the unified socio-cultural matrix within which they are embedded. It is important to recognise that the existence of medical pluralism places Allopathic and non-Allopathic systems in a competitive as well as complementary relationship with each other. Therefore the emphasis of any future study should not be on documenting the failure or rejection of Allopathy and vice versa. Instead, it should be on how such diverse paradigms operate in a pluralistic setting. In other words, the focus should change from 'why do people not use Allopathic or non-Allopathic systems?' to 'How do Allopathic and non-Allopathic systems operate at the structural and

individual levels?'

The present study addresses these issues in the following manner. Chapter 2 reviews the relevant theories and empirical findings. The methodology and results of the pilot-study are elaborated in chapters 3 and 4. Chapter 3 describes the medical pluralism between and within the health-care options in Bombay and its impact on the structural component of the medico-cultural milieu. This has been assessed through interactions at institutional and practitioner levels. Chapter 4 discussed the empirical results necessary in formulating the multi-dimensional framework and providing the rationale behind the methodology to be deployed for the main study. Chapter 5 introduces a multi-dimensional framework which covers several explanatory variables. The operational model together with methodology of the main study are provided in chapter 6. It covers in detail the data collection and the effect of the methodology on the quality of the research. Chapter 7 discusses the analytical strategy for data reduction, the construction of new variables and some of the preliminary results.

Chapters 8 to 9 present and examine the quantitative results of the study obtained from the data. Chapter 8 focuses on the process of utilisation behaviour, i.e. how do individuals decide to use one or more sources. Chapter 9 examines the relationship between various explanatory variables and the patterns of utilisation behaviour. Chapter 10 discusses the individual utilisation behaviour in the light of the societal context. The concluding chapter summarises the major findings and assesses the implications of the study.

CHAPTER 2
UTILISATION BEHAVIOUR: RELEVANT FRAMEWORKS AND EMPIRICAL FINDINGS

2.1. INTRODUCTION

The utilisation of health-care services has been widely researched. Yet, there exists a dearth of theoretical frameworks suitable for a medically pluralistic country like India. In this chapter, an attempt is made to confront the conceptual issues relevant for the formulation of such a framework. In addition, the theoretical and empirical background presented here forms the basis of hypotheses and methodology to be used in the present study.

Utilisation behaviour is a complex phenomenon. It is as much influenced by factors not related to health as the continuously changing nature of illness. As a result, two major research trends have emerged and the respective theoretical and empirical literature can be usefully delineated as follows:

a)   the first group attempts to describe the sequence of events and actions associated with illness and the restoration of health. Most models and frameworks comprising this group are based on the premise that both illness and utilisation behaviour are on-going processes. As a result, they attempt to identify various decision points or stages entailed in the utilisation of health-care services.

b)   The second group attempts to determine and predict utilisation behaviour with the help of explanatory variables. Several analytical frameworks have linked a variety of individually and societally based variables to utilisation behaviour.

This chapter reviews relevant models and corresponding empirical literature from both groups and indicates the conceptual and operational difficulties arising

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from the divergent perspectives. Since neither of the approaches alone is adequate for studying utilisation behaviour in a medically pluralistic setting like India, this study attempts to draw on both. The discussion section emphasises the need to redefine utilisation behaviour as a process, the internal structure of which can be divided into stages. Apart from recognising the need to develop a multi-dimensional framework by adapting the existing ones, it also discusses common shortcomings of the previous researches.

2.2. UTILISATION BEHAVIOUR AS A DECISION-MAKING PROCESS: STAGE MODELS

The models and frameworks in this group essentially assume that health-seeking is an unfolding process made up of various stages and decision points. They describe the movement of individuals from the first recognition of symptoms through to seeking professional help and recovery.

While in some models the focus is on a limited number of stages of utilisation behaviour (e.g. Kadushin, 1953; Mechanic, 1968), in others the issue is addressed only indirectly (e.g. Freidson, 1960; Kleinman, 1980). Therefore, none of these models are suitable for the present task. For example, although Mechanic's theory delineates stages, it does so only to the point where the patient establishes initial contact with a professional. In addition, its failure to specify the nature of interdependence amongst the ten determinants of illness behaviour and the difficulties in operationalising the model restrict its usefulness. Similarly, even though Freidson's model describes the movement of clients from lay to professional care, it principally focuses on the role played by the lay groups in the referral process.

Some of the proposed treatment seeking models are unsuitable as they cannot be adapted for a wide range of illnesses. Take for example, Kadushin's (1956) five

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stage model of seeking psychotherapeutic care. It focuses on "depth" decisions in instances of serious mental illnesses. Clearly, such crucial decisions do not compare with the more common ones which take place in the majority of physical illnesses (excepting in a life threatening illness like cancer).

Nonetheless, models dealing with treatment seeking processes for somatic ailments in the western (e.g. Suchman, 1965[b]) as well as non-western societies exhibiting medical pluralism (e.g. Fabrega, 1973; Igun, 1980) are available. Each of these models have been discussed below.

2.2.1 <u>SUCHMAN'S MODEL</u>: Despite its greater relevance in non-pluralistic settings, Suchman's model (1965[b]) is a fine example of viewing utilisation behaviour as a process. It was the first attempt to model the stages of non-psychiatric illnesses and their treatments. It attempts to study illness behaviour in terms of "social patterns accompanying the seeking, finding, and carrying out of medical care" (p.114). These begin with perception of illness and end with recovery after an intervention by a professional.

Relying on Parson's conception of sick-role and Kadushin's stages, Suchman has

> "divided the sequence of medical events into five stages representing major transition points involving new decisions about the future course of medical care" (1965[b] p.114).

Although each stage presents a new problem and requires different decisions, all may not be present in every illness. Ideally, an individual would move through all five stages but often the stages get combined, prolonged, condensed or skipped.

The **five** critical transition and decision-making points in his model are: symptom experience, assumption of sick-role, medical care contact, dependent-patient

role, recovery or rehabilitation. During the **first stage** (i.e. the symptom experience stage) a decision is made that something is wrong. With the persistence of symptoms, during the **second stage**, it is decided to label the individual as "ill", to assign a sick-role and to begin ameliorative actions (self or lay treatments and referrals). The lay group is usually consulted during this stage and plays a critical role in deciding whether a professional needs to be contacted, marking the individual's entry into the **third stage**. The orientation of the lay group influences the choice of source as well as the extent of delay in seeking care. During the **fourth stage** decision is made to become a "patient" and to allow the professional to take control of the treatment. In the **fifth stage**, a decision to withdraw from being a "patient" is made and the individual either assumes his previous role as a healthy person or adjusts to his chronic condition.

Suchman's model scores over previous models on one important ground. Unlike Mechanic's model, its scope extends beyond the medical contact stage to cover treatment and rehabilitation stages. Moreover, it forms the basis for other models which have simply expanded it or divided processes within stages to give additional stages and phases.

The limitations of this model stem from two areas, namely its western orientation and its failure to distinguish between types of illnesses. The model is population specific and needs to be expanded to account for different types of utilisation behaviour including the multiple utilisation. Since it was developed in America there are no intermediary stages between the fourth (i.e. entry into professional sphere) and the final stage (i.e. recovery). The availability and use of variety of sources of care in pluralistic settings necessitates inclusion of stages which

deal with re-evaluation and change in treatment strategies. Moreover, Suchman's

concept of "shopping" - based on one of the "four principle elements"[1] - needs to be

expanded. According to him, multiple usage or shopping results mainly from seeking

that professional whose diagnosis and treatment matches with that of the patient.

But, in the pluralistic setting of India, other motivating factors like unavailability of

health-care resources (Banerji, 1975), mounting cash debt with the professional

(Nichter, 1977), doctor-patient relationship (van der Veen, 1981) are known to be

associated with multiple utilisation. Secondly, while developing the model Suchman

failed to distinguish between types of major illnesses. Since his definition of "major

illness" was based on three or more visits to a physician or hospitalisation, it could

include a range of illnesses, i.e. from non-serious but chronic to serious illnesses.

These differences between illnesses may influence the health-care decisions. The

present study therefore attempts to improvise his model by including various types of

major and minor illnesses.

2.2.2. <u>FABREGA'S MODEL</u>: Developed and empirically tested in Mexico,

Fabrega's framework is an information-processing model which attempts to account

for health-care seeking decisions in a non-western setting where multiple system

coexist. It

> "concentrates on the *information* that is evaluated and acted upon by the
> person during an instance of illness" (Fabrega, 1973 p.472).

Fabrega's model consists of nine stages wherein the individual moves from the

"illness recognition and labelling" stage through to several treatment stages and

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[1]He has isolated four components, namely, the "content", "sequence", "spacing"
and "variability". The type and arrangement of content leads to the concept of
"shopping". Stages represent "content" and "sequence" of illness behaviour whereas
differences in group membership explain "variability" and "spacing" (p.114).

terminating with "set up for recycling" stage. It enables one to trace the movement from one source to another as a result of selection, assessment and cost-benefit analysis of different alternatives (stages 3-6). According to Fabrega, the individual monitors the events and processes the information so that on noticing the symptoms, the patient selects a treatment plan (stage 3), makes an assessment of the plan (stage 4), computes strengths (stage 5) and costs (stage 6) of different alternatives before making a decision to seek or revise care.

The strengths of the model, apart from the non-western outlook are as follows. Unlike other models, it emphasises the influence of socio-cultural factors on patient's perception, interpretation and response to symptoms. In addition, it spells out the assumptions pertaining to its model of man, illness and the processes involved. It assumes that people are rational and make their decisions based on the cost-benefit analysis rooted in elementary decision theory. As a result of this theoretical stance, it   provides a well-developed overall framework for approaching health-seeking behaviour in a pluralistic setting.

However, Fabrega's model is unsuitable for the present task as a result of three limitations. Firstly, although stages 3-6 of the model make intuitive sense, they place undue emphasis on the ability of the sick individuals to interpret the signs, assess the value of alternative strategies and make critical decisions. Illness is a continuously evolving situation, rather like the dynamic decision-making situation described by Edwards (1962) and it is doubtful if such exhaustive evaluation of alternative strategies would always be possible. Empirical studies (e.g. Calnan, 1983) also suggest that the health-care decisions do not involve such exhaustive assessments. Moreover, the model assumes that the individual has complete

knowledge of the choices available. However, the illness-situation invariably carries an element of uncertainty and doubt. Secondly, the model cannot be fully operationalised and Fabrega himself has recognised the limitations arising out of it. Others have also criticised it for being too "scientific" (Igun, 1979). According to Igun, the model has "became unnecessarily mathematical" and has "ended up mystifying the simple process which it set out to explain" (p.446). Thirdly, its predictive value is limited further on account of its exclusion of variables other than the socio-cultural ones.

2.2.3. IGUN'S MODEL: It has identified eleven stages of illness behaviour and validated by a field-study carried out in the pluralistic setting of Nigeria. To quote Igun, "it is an eclectic model from those available" (1979, p.446). It elaborates on the models presented by Suchman, Freidson, Fabrega, Frankenberg and Parsons.

In between the initial "symptoms-experience stage" and the eventual "recovery and rehabilitation stage", are nine stages dealing with evaluation of illness, involvement of lay group and actual treatment. Like Fabrega's model, an individual selects a treatment on the basis of cost-benefit analysis. Subsequent evaluation of the treatment may lead to selection of another treatment plan, which amounts to multiple utilisation.

Igun's model provides a framework which could be appropriate for a pluralistic society like India. However, its usefulness is precluded by factors like exclusion of important variables and absence of predicative power . Moreover, despite its logical and empirical meaningfulness, the model cannot account for the role played by variables like socio-demographic, nature of illness and structural factors in producing utilisation behaviours. Like Suchman's model it fails to

distinguish between various types of illnesses and their impact on the treatment strategies. Since his model fails to go beyond identifying and ordering events, it is not sufficient to be used as a comprehensive framework for the present study. Although he mentions that the model is based on "an empirical study of symptomatic health-seeking" it relies too heavily on qualitative assessment by the author.

2.3. DETERMINANTS OF UTILISATION:FACTORIAL MODELS AND FRAMEWORKS

These models and frameworks use one or more variables to predict health behaviour and were first to be applied in utilisation research. Unlike the process models, they do not emphasise the changes and oscillations taking place. Instead they concentrate on identifying factors which lead to these health-care decisions.

These models/frameworks have been developed for a variety of reasons ranging from the need to predict the impact of variables, assessing the distribution of health-care services to the evaluation of policies. As a result, an enormous diversity exists in the nature and scope of these frameworks. Depending on the scope, two groups can be delineated: generic and specific. The generic ones are comprehensive and systematically include a wide range of variables (e.g. Andersen, 1968; Andersen and Newman, 1973). The specific models, on the other hand, are specialised and concentrate only on a few variables. As a result, there exists a wide range of specific models, each dealing with different determining variables. For example, whereas the health belief model (1966) concentrates on the perceptual and motivational aspects, Freidson's model (1960) deals with the role played by the lay network in utilisation behaviour. The strengths and drawbacks of generic and specific models stem from their scope. The generic frameworks are considered to be too elaborate and not suitable for small scale studies of health service utilisation. The

specific models on the other hand are criticised for sacrificing scope by giving importance to some variables at the cost of excluding others.

Since many specific models get subsumed in a typical generic model, the following discussion begins by briefly evaluating the potentials of the health belief model for the current study and proceeds on to a discussion of a generic framework presented by Andersen and Newman. The relevant empirical research encompassing both groups of models is extracted thereafter to demonstrate the relationship between the determining and the outcome variables.

<u>2.3.1.</u> <u>**HEALTH BELIEF MODEL**</u>: The Health Belief Model (HBM) has been mainly used to assess preventive utilisation behaviour. Judging by the scarcity of studies on predicting curative usage with the HBM, it is perhaps safe to say that it is best used in two types of situations. Primarily, it is more suitable in a discretionary choice situation where the health-care is chosen rather than required. In other words, it is more effective for identifying the participants of a screening programme for detecting cancer rather then for predicting what the individuals would do once their cancer has been detected. In addition, it is best used with an experimental design or prospectively gathered data. In a utilisation study such as the present, with its focus on curative behaviour, such data is hard to obtain (see chapter 6 for more details).

As a specific model, the HBM fails to include some of the individually, structurally and socio-culturally based variables which are known to exercise significant influence on utilisation behaviour. It is important to include these variables for three reasons. Firstly, besides having a strong cognitive component, the four elements of the HBM are also a product of the socio-cultural milieu. The individual's health related beliefs are also influenced by the norms and pressures of

the group. Secondly, as the empirical evidence presented in the following section shows, besides perceived seriousness other aspects of illness (e.g. attribution of cause) also influence health-related actions. Thirdly, although Lewin (1951) had originally acknowledged the importance of socio-structural factors in determining the needs of the person, the HBM does not include variables like accessibility of services. According to Mechanic (1976) this neglect reduces the predictive powers to a "modest" level.

Besides the above, another limitation minimises the usefulness of the HBM in the present context. It stems from the fact that the development and orientation of HBM is predominantly western. While the HBM has been successfully applied in the west, its ability to adapt to developing societies and medical pluralism has not met with success (Quah, 1985).

2.3.2 ANDERSEN AND NEWMAN'S FRAMEWORK: The original framework, put forward by Andersen in 1968, has subsequently been expanded by Andersen and Newman (1973) and Aday and Andersen (1974)[2]. It is one of the most comprehensive and widely used frameworks in the health related researches during the past two decades in the west (Andersen, 1968; Andersen and Newman, 1973; Wan and Soifer, 1974; Wolinsky, 1976, 1978; Chappell and Blandford, 1987; Starrett et al., 1989; Strain, 1990). Even though it may not be possible to apply Andersen and Newman's framework directly, it has the potential to be adapted to

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[2]The revisions by Aday and Andersen (1974) produced a health systems model with five groups of determinants. The individualistic determinants of the original model were grouped under "characteristics of population-at-risk" and four additional characteristics, namely, "health delivery system", "health policy", "consumer satisfaction" and "utilisation of health services" were included. It is however, too complicated (due to the large number of variables at different levels) and presents difficulties in adapting it for a pluralistic setting.

study utilisation behaviour in a pluralistic setting like India.

The framework identifies both societal and individual determinants of health-care utilisation wherein the former affects the latter both directly and indirectly. The framework posits that **societal determinants** (i.e. *norms* and *technology*) influence the *resource* (i.e. volume and distribution) and *organisation* (i.e. access and structure) of the health services. Together they influence the individual determinants, which in turn, are linked to utilisation behaviour. It also incorporates three major categories of **individual determinants** namely, *predisposing*, *enabling* and *need* (or *illness*) characteristics.

The *predisposing* characteristics refer to factors which exist prior to ill-health. According to Andersen and Newman, utilisation behaviour is expected to differ for individuals who are differently predisposed as a result of different *demographic*, *social-structural* and *health belief* characteristics. The *demographic* factors (age, gender, marital status, past illness) tend to influence the type and number of illnesses the individual suffers from. The *social structural* factors locate the social position of the individual. These variables (education, race, occupation, family size, ethnicity, religion, residential mobility) affect the life style of the individual, which in turn, influence the usage patterns. The *health belief* factors (values concerning health and illness, attitudes towards health services, knowledge about disease) determine the inclination of the individual to use a service.

The equally predisposed individuals do not show identical utilisation behaviour because of the differences in the *enabling* characteristics. Essentially, these variables permit the individual to obtain satisfactory care. The differences in *family resources* (income, health insurance, type and access to regular source of care) as well as the

community resources (price, urban-rural character of the services, health personnel-population ratio) produces differences in the ability to use sources.

Both the propensity and the availability of services depend on *illness* or *need* level factors to trigger an action. According to Andersen and Newman (1973) "Illness level represents the most immediate cause of health service use" (p.109). Like in the HBM, illness provides a 'cue' for seeking health-care. A need may be subjectively *perceived* and/or clinically *evaluated*.

One of the most important contributions of the framework is its treatment of the dependent variable, i.e. the **characteristics of utilisation.** It has identified three dimensions, namely, the *type*, the *purpose* and the *unit of analysis*. *Type* differentiates between sources of utilisation (e.g. physician, hospital). Since different trends of utilisation exist for each of these sources and different individual determinants are associated with different types of services, according to Andersen and Newman, it is important to identify the type of utilisation. *Purpose* refers to the aim behind using the source of care. For identifying the purpose of utilisation, they recommend four categories specified by the Commission on Chronic Illness in the United States (1957) namely, primary care (i.e. preventive), secondary care (i.e.restorative), tertiary care (i.e. stabilisation of a chronic illness) and custodial care (addressing personal needs of the patient and not the illness). The third dimension refers to the *unit of analysis* (i.e. illness episodes, stage and volume of contact). Like the type, each of these units is associated with different determinants.

Andersen and Newman's framework provides a systematic and logical framework and some of its components can be extracted for use in the present study. However, it needs to be expanded to include two groups of variables.

2.3.2.1. A NEED TO EXPAND ANDERSEN AND NEWMAN'S FRAMEWORK

One of the most serious drawbacks of the framework stems from the exclusion of two groups of variables; namely, the role of the lay networks in the management of illness, and treatment related variables like the patient-practitioner relationship. The following discussion emphasises the need to include these two groups of variables.

NEED TO INCLUDE SOCIAL NETWORK VARIABLE: Numerous studies have examined the role of lay networks on utilisation behaviour in the western (Freidson, 1960; White et al., 1961; Suchman, 1965; Hulka et al., 1972) and non-western societies (van der Veen, 1981). Especially in the latter, health related behaviour is not necessarily always based on individual's perceptions and resources. The lay group is equally, if not more, instrumental in shaping behaviour both prior to and during the illness. They do so by defining concepts like health, illness, sick-role, effective treatment; by providing legitimacy to sources of care, by monitoring the progress and evaluating the outcome of a treatment etc.

In the beginning, the lay network advices on what should be done before seeking professional care (Freidson, 1960). Suchman (1965[b] the USA) found that more than three-quarters of the symptoms which were taken to the physician had been first discussed with a member of the lay-group and about 16% with two or more members. Kleinman (1980 Taiwan) found that nearly all incidents (93%) were first treated by the family and nearly 73% of these episodes failed to reach professional care.

Not only does the lay network provide initial treatment, it is actually instrumental in seeking professional care (Koo, 1954; Zola, 1973; Finlayson and

McEwen, 1977; Alonzo 1980; McKinlay, 1981; Scambler et al., 1981). The nature of the lay group either shortens or increases the delay in seeking professional care (Freidson, 1960; Calnan, 1983). Suchman (1965[b]) too found that delay in seeking a professional was related to the group structure[3]. According to him, the "parochial" groups (characterised as being close, traditional and affectual) show greater faith in the lay referral system and delay entering the medical contact stage. The "cosmopolitan" groups (characterised as being progressive, individualistic, instrumental and open), on the other hand, move quickly through the first two stages and have a longer medical care contact stage.

As will be elaborated in the following section, the significant and decisive role played by the lay groups appears to be equally critical in multiple utilisation behaviour in the western (Freidson, 1960; Suchman 1965[a] the USA) and non-western countries (Feierman, 1979 Africa; Durkin-Longley, 1984 Nepal). As noted by Freidson (1960), the lay network

> "not only channels the client's choice but also sustains it or, later on leads him to change his mind" (p.378).

Such changes result in multiple utilisation. Amongst the immigrant populations, the role of the lay group is even more crucial. They seem to structure the treatment strategies based on multiple usage of native medicines and those of the adopted culture (Weaver, 1970 on Spaniards in the USA; Sachs 1983 on Turks in Sweden).

Beside attending to the actual medical needs, the lay groups also provide assistance in obtaining the required medical care. In most non-western cultures,

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[3]While relating medical orientation to the group structure, he found that members of the "parochial" groups showed popular orientation to medicine, scepticism of medical care and greater dependency in an illness. In contrast, those belonging to the "cosmopolitan" groups have scientific orientation and are less dependent on the lay group during an illness.

distant relatives (especially those occupying important positions) are often contacted to speed up the bureaucratic procedures (van der veen, 1981; Beals, 1976 India; Creygton, 1977 Tunisia) or to provide accommodation in a distant town (Ramchandran and Shastri, 1983 in India). Beals (1976) observed that the Indian people often refrained from seeking Allopathic care from certain hospitals because personnel working there were neither related nor known to the village networks of kinship.

To summarise the point made so far, the decisive role played by the lay network should be included in Andersen and Newman's framework.

NEED TO INCLUDE TREATMENT RELATED VARIABLES: Andersen and Newman's framework links utilisation behaviour to attitudes and beliefs about the form of treatment in general. Although useful, it is not adequate for it is equally important to take into account aspects of current treatment situation. Studies have shown that treatment related aspects like the patient-practitioner relationship (e.g. familiarity, communication, length of medical encounter), practitioner's socialisation and attitudes (e.g. towards patients and their illnesses, towards medical systems) are associated with subsequent usage behaviour, frequency of contact, satisfaction and compliance with their instructions.

In the West, attempts have been made to relate dependent measures (e.g. level of disclosure, satisfaction, compliance) to communication aspects like information exchange (Waitzen and Stoeckle, 1972) and verbal behaviour during consultation (Byrne and Long, 1979) as well as its emotional component (Mechanic, 1968; Kasteler et al., 1976). The nature of patient-practitioner encounter plays an important role in determining the utilisation strategy. According to Mechanic,

"the success of the doctor-patient relationship is in large part attributable to the extent the doctor and patient share common frames of reference" (1968, p.164).

Several researchers have highlighted the enormous gap in the educational and socio-economic background of the doctors and their average patients in the developing societies (see Paul, 1955 for examples from India and other countries). The resulting situation is one in which "neither party understood the assumptions on which the other acted" (Creygton, 1977 p.349). Moreover, both doctors and patients have different expectations of the medical encounter which in turn affect utilisation behaviour. Whereas the illness and its management is a novel situation for the patients, for the practitioner it is a routine one. The result is "a high degree of inhibition, mistrust or fear towards modern doctors, forming real barrier towards seeking medical help" (Boesch 1974, p.119). These differences result in distortion of meanings and dissimilarity in diagnosis which, in turn, leads to dissatisfaction, low compliance and multiple utilisation (Kleinman, 1980). According to Carstairs (1955) the cultural gap between the Allopathic doctor and rural patients resulted in misunderstandings which

> "were found to arise from false expectations on both sides, based on different theories of etiology, different techniques of cure, and different conceptions of the role of the physicians" (p. 133).

The non-Allopathic healers are preferred to Allopathic doctors because their approach is believed to be more personal and their techniques more meaningful to the masses. In the majority of the cases these practitioners are

> "insiders to the community. They share the culture of their patients, and their world view. They live, eat and dress as ordinary people. They are diffusely related to their patients, as friends, kinsmen, employers, or colleagues..." (Djurfeld and Lindberg, 1975 p.162).

As Khare (1963) put it, the traditional systems are successful because they

"assure the people that a)the system is their own and b) that it provides the people with the "best" and "complete" and "secure" ways of coping with their physical and mental ailments" (p.37).

Mutual understanding arising out of shared cultural knowledge results in better understanding and anticipation. This facilitates communication between the patient and the practitioner, which leads to greater satisfaction (Creygton, 1977 in Tunisia). Ahern (1974) observed that "both Chinese-style doctors and ordinary people use much the same vocabulary in discussing disease" (pp.210-211) resulting in better communication between the two.

Scepticism of the health-care provider can affect the utilisation behaviour. In Bangladesh, Ali Ashraf et al. (1982) found that the choice of practitioners was affected by trust in the practitioner, as well as beliefs about the special qualities of medical systems. In Mexico, faith in the ability of the health-care provider was important in choosing the source of care (Young, 1980).

Personal preferences of the health-care provider are also known to affect the utilisation behaviour of the patients. Some practitioners are known to be receptive to systems other than the one they have been trained in. Practitioners in India and elsewhere indirectly lead to multiple usage by either engaging in multiple dispensing themselves (Bhatia et al., 1975; Henry, 1977; Montgomery, 1981 in India; Amarasingham, 1980 in Sri Lanka; Lee, 1974 in Hong Kong), or recommending usage of other sources to their clients (Montgomery, 1981; Nichter, 1981c in India; Durkin-Longley, 1984 in Nepal; Lock, 1980 in Japan). The following section will give more examples of how treatment related factors increase multiple utilisation.

2.3.3. ILLUSTRATIVE TRENDS AND RELATIONSHIPS

Having reviewed the theoretical frameworks dealing with utilisation behaviour, it is important to examine the trends in the use of health-care services. The following section attempts to do this by first examining how type (i.e. multiple) and patterns of usage (i.e. movement from one system to another) relate to various individually based characteristics. The following discussion identifies the countries in which these studies have taken place since societies tend to vary in terms of socio-economic development, national health-care policies, political structures, cultural norms and values.

Varying extent of exclusive and multiple usage (i.e. types of utilisation behaviour) has been observed in different parts of India. Whereas in a north Indian city, two-thirds of the households in the sample preferred to use more than one system of medicine (Madan, 1969 p.1481), almost a third did so in a rural-based study (Bhardwaj, 1975). Others have reported incidents wherein Allopathic sources have been combined with either *Ayurvedic* (Djurfeld and Lindberg, 1975; Nichter, 1977, 1980; Montgomery, 1981 south India) or sacred sources (Godwin, 1972; van der Veen, 1981 west India; Henry, 1977 north India) or both (Beals, 1976 in south India).

Multiple usage is known to be widespread in other developing[4] and developed

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[4]It has been reported in rural areas of Guatemala (Wood and Graves, 1976; Gonzalez, 1966; Cosminsky, 1980), Mexico (McClain, 1977; Fabrega 1973, 1977; Fabrega and Manning 1979; Fromm and MacCoby 1974), Lower Zaire (Janzen, 1978), Cameroon (Nchida, 1977), Malaysia (Colson, 1971; Chen, 1971, 1975, 1981; Heggenhougen, 1980), Thailand (Boesch, 1974), Sri Lanka (Amarasingham, 1980), amongst the natives of Admiralty Island (Schwartz, 1969; Romanucci, 1983), Yemenite migrants in Israel (Palgi, 1983).

nations[5]. A handful of studies carried out in the urban areas suggest that the use of

more than one sources of care is not restricted to the rural areas[6].

Some studies have identified patterns of multiple usage. Of the two, the

sequential pattern of use appears to be more popular than the simultaneous one. In

non-western countries, the most frequently observed pattern of utilisation begins with

a home-remedy, after which people appear to keep shifting from one form of care to

another, either adding new sources or reverting to old treatments on the way, until

some relief is achieved[7]. For example, in India, Rao and Richard (1984) found that

82% of the sample preferred home remedies in the early stages of illness and

Allopathy later on. Similarly, Freidson (1960, 1962), in his seminal study found a

hierarchy wherein individuals moved from lay to formal sources. Compared to the

developing nations, patients in the developed societies exhibit less variety in patterns

of utilisation and usually seek Allopathic care followed by non-Allopathic sources

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[5]Multiple usage of Allopathic and non-Allopathic sources has been reported in pre-war (Macfarlane, 1970) as well as modern England (Which?, 1986), in USA (Butler 1980) and amongst the immigrant sections of these nations (Scott, 1975; Garrison, 1977; Slesinger and Richards, 1981). Besides, studies also report multiple usage within a system. For example, in America, certain groups use more then one Allopathic doctors (Koo, 1954; Olsen et al., 1976; Kasteler et al., 1976; Greene et al. 1979). Similarly, in England, Gray and Cartwright (1953), found that about one third of the sample (N=7000) had changed doctors.

[6]Studies carried out in the urban areas of Columbia (Press, 1969), Zambia (Frankenberg and Leeson, 1974), Hong Kong (Topley, 1970, 1974; Lee, 1974, 1980), Singapore (Quah, 1977; Ho et al., 1984), Philippines (Lieban, 1981), Taiwan (Kleinman and Sung, 1979) and Nepal (Durkin-Longley, 1984) report multiple use of sources.

[7]Patterns involving movements from non-formal to one or more formal sources have been observed in India (Rao and Richard, 1984; Beals, 1976); Bangladesh (Ashraf et al., 1982); Sri Lanka (Amarasingham, 1980); Taiwan (Kleinman, 1980); Nigeria (Maclean, 1965; Igun, 1980); Guatemala (Cosminsky and Scrimshaw, 1980); Mauritius (Sussman, 1981); Malaysia (Chen, 1981); Mali (Hielscher and Sommerfeld, 1985).

(Lock, 1980 Japan; Butler, 1980 the USA; Which?, 1986 the UK). For example, in the UK one in seven people sought non-conventional medicine in 1985 (Which?, 1986). More than 80% of them first tried conventional medicine and their dissatisfaction with it motivated them to seek alternative forms of medicine.

Although vast, the literature on utilisation behaviour is scattered across various disciplines and research settings. Moreover, there exists a paucity in research identifying determinants of patterns of utilisation behaviour in India and other pluralistic settings. As a result, hypotheses about patterns of utilisation will have to be inferred from the more generalised studies on multiple utilisation. Therefore, in situations where determinants of patterns of utilisation have not been identified, studies based on differential use of Allopathic and non-Allopathic systems have been cited. In addition, findings based on western studies will also be mentioned wherever relevant. As pointed out by Benyoussef and Christian (1977),

> "demographic and social factors which affect health service utilisation rates in developed countries probably also operate in developing regions but with increased force" (p.400).

The following presentation of the empirical studies, elucidating how different variables affect utilisation behaviour, falls in line with Andersen and Newman's framework. The inclusion of social network and treatment related variables to the latter's framework underlies the framework used in the present study (see chapter 5 for more details).

I.   PREDISPOSING COMPONENT

a)	demographic	: e.g. age, gender, marital status
b)	social structural	: e.g. education, race, occupation
c)	beliefs	: e.g. health attitudes, efficacy of system
d)	social	: e.g. reliance on lay network

II. ENABLING COMPONENT

f)	family resources	: e.g. income, access to regular care
h)	community	: e.g. organisation and price of services
h)	treatment	: e.g. patient-practitioner relationship

III. ILLNESS COMPONENT

i)	types	: serious, common, chronic, self-limiting
j)	manifestation	: symptoms at onset, aetiology, processes

2.3.3.1 COLLECTIVE DETERMINANTS OF TYPES AND PATTERNS OF USAGE

Very few studies carried out in the non-Western medically pluralistic cultures deal simultaneously with the association of several explanatory variables in determining utilisation behaviour.   Young (1980) found that gravity of illness, faith, knowledge of home remedy and accessibility collectively accounted for 90% of the treatment choices in Mexico.   Some evidence to the contrary is available from a study done by Colson (1971).   Out of 23 variables, Colson found that only two variables - perceived etiology and degree of impairment - were useful in predicting the choice.   Although he included a wide range of sources (Government services, native healers, physician in private practice, medicine vendors and self treatment), some methodological limitations preclude the extent of generalisations based on his results.   For example, although the sample size was relatively large (N=305), it was essentially a homogenous sample from a remote village in Malaysia.   It is therefore understandable why many variables failed to produce significant results.

Over the decades, a number of researchers have successfully tested Andersen

and Newman's framework in the west for predicting patients' recourse to a physician, but their results seem to vary. Whereas in some studies all three components were found to have a strong and direct effect (e.g. Wan and Soifer 1974), others have found only one or two to be significantly related. For example, while in some studies the need component was either the only (Strain, 1990) or the most significant factor (Chappell and Blandford, 1987), in others, the predisposing and the enabling factors were more important (Starrett et al., 1989).

2.3.3.2 INDIVIDUAL DETERMINANTS OF TYPES AND PATTERNS OF USAGE

I. PREDISPOSING COMPONENT

DEMOGRAPHIC VARIABLES: No specific gender or age related patterns have been identified. However, many studies have linked these variables to the use of specific medical systems. In his review, Kroeger (1983) concluded that,

> "Age and sex often have a discriminatory function in the choice between traditional and modern health care" (p.148).

Compared to men, women exhibit higher usage of all types of sources (Lieban, 1976 Philippine) especially the non-Allopathic sources in India (Beals, 1976) and elsewhere (Frankenberg and Leeson, 1972 Zambia; Ahern, 1974 Taiwan). Women tend to use sacred sources more frequently in India (Lewis, 1971; Henry, 1977) and elsewhere (Finkler, 1980, 1985 Mexico).

Age seems to be negatively associated with the use of Allopathy (Topley, 1974 Taiwan) and positively with the non-Allopathic treatments (Maclean, 1965 Nigeria; Ahern, 1974 and Kleinman, 1980 Taiwan). But contradictory results have been obtained. For example, in the Ivory Coast, age is negatively associated with the use of African medicine (Lasker, 1981). In one Indian study, younger people

preferred the Allopathic system (Manchanda et al., 1980) whereas in another, no such association was observed (Madan, 1969).

SOCIAL STRUCTURAL VARIABLES: In India, **education** seems to be linked to pragmatic use of health-care options. Nichter (1981[c]) found that the educated urban Indians preferred Allopathy but switched to non-Allopathic sources when the former failed to produce results. Level of education is associated with the reason underlying the choice. In an urban-based study, Madan (1969) found that,

> "the better educated a person the more his tendency to maintain that the principal reason for his choice of a particular type of treatment is effectiveness" (p. 1483).

In another study, education was seen as a help in seeking the right source of care (Rao and Richard, 1984). In addition, they found that the proportion of Indians who preferred to seek professional care during the initial stages of common illnesses increased significantly with education. In a Nigerian study, higher education reduced the need to change sources of care (Ademuwagun, 1976).

Higher education leads to greater use of Allopathy in India (Gould, 1957, Manchanda et al., 1980; Rao and Richard, 1984) and elsewhere (Lieban, 1981 Philippines; Kroeger, 1982 Ecuador). In the initial stages of illnesses, Rao and Richard (1984) found that 30% of those educated beyond the secondary school preferred to use Allopathy as against 15% of those without any schooling. Lieban (1981) too found higher proportion of educated people (84%) resorting to Allopathy during the initial stages. Its converse - higher education leading to rejection of non-Allopathic sources and vice versa - is equally true (Fromm and MacCoby, 1974; Wood and Graves, 1976; De Walt, 1977 Mexico; Benyoussef and Wessen, 1975 Tunisia; Kleinman, 1980; Ahern, 1974 Taiwan). However, some contradictory

findings have been gathered. In India, Madan (1969) found that education was not related to preference for Allopathy. In Thailand, Boesch (1974) found that magical healers were equally popular amongst the educated. In the Ivory Coast, three quarters of the medical students reported using African medicine, despite having an easy access to Allopathic care (Lasker, 1981). In Taiwan, Allopathy gets combined with Chinese medicine by many well educated Chinese (Topley, 1970, 1974; Kleinman and Sung, 1979). Similarly in Japan, Lock (1980) observed that traditional medical systems are used by patients of all educational groups.

Ethnicity seems to affect the way sources within and amongst different medical systems get used in rural areas (Fabrega and Manning, 1973 in Mexico; Woods and Graves, 1976 in Guatemala; Heggenhougen, 1980[a] in Malaysia; Lasker, 1981 in the Ivory Coast; Scott, 1975 in the USA) but not necessarily in the urban areas of India (Rao and Richard, 1984) and elsewhere (Lasker, 1981 in the Ivory Coast). Although some Indian studies have found **caste membership** to be an important variable in determining the utilisation behaviour (Gould, 1957; Ramchandran and Shastri, 1983), others have failed to establish such a relationship (Bhardwaj, 1975; Rao and Richard, 1984). In some instances **religion** seems to affect the choice of sources in India (Madan, 1969) and elsewhere (Lasker, 1981 in the Ivory Coast).

Although the impact of **occupation** has rarely been assessed separately from income, it appears to affect usage patterns. In North India, professionals tend to combine various types of treatments more often than the others (Madan, 1969).

SOCIAL NETWORK: The active role played by the **lay network** often leads to multiple utilisation. In India, family members often make substantial efforts to seek

treatment from otherwise inaccessible sources because they want the satisfaction of doing the most for the sick relative (Nichter, 1981[a]). Multiple usage is often a product of the extended family or significant others having the knowledge and access to a wide range of resources (Freidson, 1960). Others like Ali Ashraf et al. (1982) and Amarasingham (1980) have also highlighted the influential role played by the lay group in deciding which healer to seek and evaluating the outcome of these treatment strategies.

HEALTH BELIEF VARIABLES: Compared to the west, the impact of attitudes and beliefs in general as well as those pertaining to the choice and patterns of curative utilisation have not been studied extensively in the non-western societies, especially in India. Thus, the link between such psychological predispositions and utilisation in medically pluralistic societies is neither clearly documented nor firmly established as yet.

Several reasons can be isolated to explain this virtual absence of research. Firstly, problems pertaining to availability and other health-care delivery aspects tend to override the need for studying the impact of psychological variables. Secondly, eliciting attitudinal responses from people in the developing countries is held by researchers to be hard to obtain, and therefore less popular. Thirdly, the research carried out in the west[8] as well as in non-western countries has failed to firmly establish the link between the attitudes and utilisation behaviour. To illustrate, in one study carried out in the Ivory Coast, Lasker (1981 p.166) has concluded

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[8]In the west, whereas utilisation behaviour is associated with certain psychological variables like stress (Mechanic and Volkart, 1961; Shepherd et al., 1966; Roghmann and Haggerty, 1975), it is either only slightly associated with variables like tendency to adopt sick-role (Bice and White, 1969; Kirscht, 1974; Roghmann, 1975) or not at all associated with fatalism (Hershey et al.,1975), various fears (Gochman, 1972; Roghmann, 1975).

"that although "modern" opinions may influence behaviour in a more "modern" direction, particularly in a city where facilities are more available, they are in no way necessary condition for the choice of Western medical methods."

In another study, despite their shared beliefs about the cause of illness, the rural and urban women differed in their use of Allopathy. Others like Durkin-Longley (1984 in Nepal) have also noted that in pluralistic settings, attitudes and preferences are not good predictors of usage behaviour.

Despite the aforementioned general lacuna, attempts have been made to explain usage patterns with **belief in the efficacy** of the medical system. In India, the source of utilisation is often determined by the perceived efficacy of treatment or expectation of a successful cure (Gould, 1965; Bhardwaj 1975). In Japan, Lock (1980) found that concern with toxic synthetic drugs of Allopathy was one of the main reasons for using non-Allopathic sources. Similarly, Colson (1971) and Erasmus (1952) also noted the choice was based on the previous evidence regarding the efficacy of the system.

However, many researchers have found very weak links between psychological variables and use of services when compared to other variables (Geersten et al.,1975; Hershey et al., 1975; Roghmann, 1975) while others like McKinlay (1972) have criticised the tautology created as a result of gathering data on behaviour and attitude at the same point in time.

II.   ENABLING COMPONENT

FAMILY AND INDIVIDUAL RESOURCE VARIABLES: Income and social class can affect utilisation behaviour both indirectly (i.e. by affecting the health of an individual) and directly (i.e. when health status is controlled). In India, multiple utilisation and its patterns appears to be directly linked to income. Compared to the

upper classes, lower classes frequently use multiple sources (Madan, 1969). According to van der Veen (1981) the limited purchasing power amongst the lower classes resulted in buying smaller quantities of drugs, which, in most cases was sufficient to remove only the symptoms. The reoccurrence of illness as a result, was seen as ineffectiveness of the treatment, requiring a change in treatment strategy. Another hypothesis links multiple usage and its resulting patterns to the difficulties in paying cash money (Marriott, 1955; Nichter, 1977; Manchanda et al., 1980). As observed by Nichter (1977), increasing debt with the source necessitated discontinuation of the current treatment and starting a fresh treatment with another source. Inability to sustain subsequent loss of income often leads to increased expectations of quicker cure and when recovery was slower than expected, people often change the source in India (Djurfeld and Lindberg, 1975; Nichter, 1977) and elsewhere (Cosminsky & Scrimshaw, 1980 Guatemala).

But the extent of role played by income and social class has been challenged. Kasteler et al. (1976) found significantly greater amount of shopping amongst the higher income groups. Boesch (1974) too has warned against emphasising financial constraints as a unique reason for using multiple sources since

> "in some cases the economic argument may be used as a pretext ... to hide other more personal dislikes" (p.119).

Thai people, on one hand, did not have sufficient funds to go to hospitals, but on the other, were prepared to buy expensive drugs locally.

Similarly, although increased use of Allopathy has been observed as one moved up the economic ladder in India (Madan, 1969; Djurfeld and Lindberg, 1975)

and elsewhere (Lasker, 1981 the Ivory Coast) and vice versa[9], the extent of role played by income and social class has been challenged. In India, Ramchandran and Shastri (1983) found that the Allopathic system was used by all sections of rural population irrespective of income level. Similarly, Lock (1980) found that the traditional medical systems were used by patients of all income groups in Japan. Compared to the poor, the rich use non-Allopathic sources more often (Garrison, 1977 Puerto Ricans in New York; Lasker, 1981 in the Ivory Coast). Higher income leads to lesser use of non-formal sources during the initial and subsequent stages of illness (Rao and Richard, 1984).

COMMUNITY RESOURCES: The **rural-urban residence** appears to produce differences in patterns of utilisation. In Thailand, the villagers preferred non-Allopathic sources first and Allopathic on their failure, and the city-dwellers exhibited reversed patterns (Boesch, 1974). But in India, Madan (1969) did not observe differences in preferences based on the place of residence.

Availability of services is one of the most discussed variable in the health-service research. In the majority of the developing countries, delivery of Allopathic care is plagued by problems and falls short of meeting the needs of people. Unavailability of proper Allopathic care is often cited as a major shortcoming in the underdeveloped countries (Gould, 1957; Fonaroff and Fonaroff, 1966; Kroeger, 1982; Stanley Yoder, 1982; Ali Ashraf et al., 1982) as well as developed countries (Slesinger and Richards, 1981). Allopathic care based in the Public Sector is criticised for being inefficient and highly bureaucratic. This is to the detriment of the institutions which,

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[9]Lower classes either seek non-Allopathic sources (Gould, 1957 India) or fail to seek any source of care (Teller, 1973 Hondura).

"40 years ago had a leadership, extensive facilities and good standard of services... but today are very short of funds, poorly looked after for maintenance and are in danger of broadly losing leadership" (Brihanmumbai Mahanagarpalika Patrika, 1987 p.15).

Banerji (1985) observed that a large proportion of patients were given cough mixture and sent off without adequate diagnosis in rural clinics in India. Often, the facilities are understaffed or are very poorly equipped and little attention gets paid to the patients (Ali Ashraf et.al, 1982). To sum up in the words of Djurfeld and Lindberg (1975),

"the relative inefficiency of the allopathic system is the basic reason for the relative efficacy of the indigenous system" (p. 112).

The volume and distribution of the non-Allopathic health-care services (provided by qualified, partially qualified and unqualified) is fairly extensive in all underdeveloped countries. Easy availability of the non-Allopathic care has been cited as one of the main reasons for continued survival of these services.

TREATMENT VARIABLES: The **characteristics of the health-care provider** can influence the usage behaviour. Multiple utilisation often results from searching for a curer who meets the patient's cultural, psychic and somatic needs in India (Nichter, 1981*) and elsewhere (Amarasingham, 1980 Sri Lanka; Press, 1969 Columbia). The enormous gap in the education and socio-economic background between the doctor and his/her average patient often results in misunderstandings, which in turn, leads to multiple utilisation. Carstairs (1955) has demonstrated how the cultural gap between the doctors and their rural patients results in misconceptions on both sides. Sometimes, the inability of the Allopathic doctors to get integrated with the community resulted in multiple usage (Marriott 1955). According to Boesch (1974, 1977) the practitioners in Thai hospitals encouraged multiple utilisation by not

understanding the patients and not making the patient feel understood.

> "A patient trusts his doctor only when understands him and when he feels understood himself; otherwise, the doctor only reinforces medical "shopping behaviour" ...." (1977 p.27)

The failure to share common definitions and their "divergent and, at times, conflicting interests" (Suchman, 1965* p.2 the USA) often leads to dissatisfaction (Pratt et al., 1957 the USA) and low levels of compliance (Davis, 1968; Freidson, 1962 the USA).

Familiarity with the doctor is very important for Indians. The studies done in villages have shown that there is a drop in volume of patients utilising a service when a new doctor arrives (Hassan, 1967; Djurfeld and Lindberg, 1975). Indians tend to view

> "their relationship with doctors in terms of their general view of the world" (van der Veen, 1981 p.169),

and regard their relationship with doctors on a personal level. Gould (1965) found that personal relationship with an Allopathic doctor (researcher himself) resulted in one third of patients taking Allopathic care when Ayurvedic care would have been warranted otherwise.

Dissatisfaction with the current source of treatment often results in multiple utilisation (Cobb, 1954; Boesch, 1974 Thailand; Creygton, 1977 Tunisia; Kleinman, 1980 Taiwan; Lock, 1980 Japan; Sussman, 1981 Mauritius; Butler, 1980 the USA; Which? 1986 the UK). For example, Lock (1980) observed that 95% of the patients in *kanpo* (traditional Japanese medicine of Chinese origins) clinics had first tried Allopathic system and turned to *kanpo* only after they were dissatisfied with it. Cosminsky and Scrimshaw (1980 Guatemala) found that the inability of the western

medicine to meet the expectation of a quick cure lead to utilisation of multiple sources. Often different alternative sources within the same systems are sought if the current treatment fails to produce desirable results. In Mauritius, Sussman (1981) found that in the majority of the illness episodes, the initial Allopathic treatment was obtained from governmental hospitals but subsequently they switched to a private source.

Moreover, personally and subculturally held **scepticism** in the provider can strongly influence the choice of health-care source and determines the length of delay in seeking medical care in India (Gould, 1965; Marriott, 1955) and elsewhere (Young, 1980 Mexico; Saunders, 1954 South America; Suchman, 1965[a]; Anderson and Sheatsley 1967 the USA). It has been noted in the west that the scepticism and negative attitude towards the medical professionals often result in "shopping" for care (Bice et al., 1972; Anderson and Bartkus, 1973; Kasteler et al., 1976). Kasteler et al. (1976) found that lack of confidence in doctors' abilities, hostility towards them, unfavourable attitude towards doctor's personal qualities and doctors' unwillingness to spend time talking to the patients resulted in "shopping". The effect of scepticism on utilisation is even more pronounced amongst the immigrant population (Sachs, 1982 in Norway; Slesinger and Richards, 1981; Garrison 1977 in the USA; Palgi, 1983 in Israel).

The **cost of the treatment** has often been cited as the main reason discouraging the use of Allopathic services and vice versa. The cost of Allopathic treatment being prohibitive in many cases has been discussed often. The continued existence and popularity of non-Allopathic healers is to some extent a product of higher cost of Allopathic care in India (Bhardwaj, 1975, Banerji, 1975, 1985;

Djurfeld and Lindberg, 1979) and elsewhere (Colson, 1971 in Malaysia; Young, 1981 in Mexico; Ali Ashraf et al., 1982 in Bangladesh). According to Marriott (1955), the non-Allopathic healers are more popular because they do not insist on cash payments. Young (1980) found that found that cost of treatment and accessibility were the two major reasons for not utilising the Allopathic doctors. However, other studies point to an opposite trend. As mentioned in chapter 1, studies in India and elsewhere have found higher use of non-Allopathic services even when Allopathic care was cheaper and easily available.

III. ILLNESS COMPONENT

TYPES OF ILLNESSES: Different forms of treatments are used in varying order to treat either different types of illness or different aspects of the same illness. In India, Beals (1976) has identified two types of strategies and associated each with different types of illnesses. The *fixed* strategy, is popular in illnesses like typhoid, pneumonia, and hepatitis. It entails a single well-defined action, i.e. exclusive usage. An *eclectic* strategy, on the other hand, is mostly adopted during epidemics, especially when supernatural causes are suspected. It is a progressive strategy wherein the treatment begins with the cheapest and most accessible remedy, but moves on to using all or most of the available means of treatments rather like the "shot-gun approach" (Lasker, 1981).

Kleinman (1980 Taiwan) has gone a step further and identified three patterns of multiple usage, namely: *simultaneous, exclusive* and *mixed hierarchical.* The *simultaneous* pattern is adopted for serious childhood illnesses and involves using all treatment options at the same time. Two types of *hierarchical* i.e. sequential patterns are associated with adult illnesses. In the *exclusive* pattern, various treatment options

are utilised one after the other for as long as the symptoms persist. This pattern is evident in the acute but non-life-threatening sicknesses. The *mixed* pattern is more typical of chronic or recurrent illnesses and is a combination of the other two as it involves adding new forms of treatment at every stage without discontinuing the previous ones.

Young (1980) divided illnesses and symptoms into three separate categories: non-serious, moderately serious and serious using hypothetical illness situations. Using cluster analysis, he identified two consistent patterns of system choice, namely "probability of cure ordered" and "cost ordered" (p.112). Whereas in the first pattern, people tried the most certain cure regardless of cost considerations, in the latter they tried the least expensive alternative.

Often, different systems are used to treat different aspects of the same illness. In Bombay, Godwin (1972) observed that people often used Allopathy for either diagnosis or treatment before turning to non-Allopathic sources. Occasionally, Allopathic treatment is sought to alleviate symptoms of an illness followed by non-Allopathic treatments to eliminate the root cause of the same illness in India (Neumann et al., 1971; Bhradwaj, 1975) and elsewhere (Gonzales, 1966 Guatemala; Amarasingham, 1980 Sri Lanka; Colson, 1971; Chen, 1981 Malaysia). An interesting explanation, put forward by Amarasingham (1980), suggests that patterns of utilisation result from attempts to comprehend different aspects of the illness.

Generally speaking, the non-Allopathic systems are believed to be more successful than Allopathy in certain types of illnesses. They are generally preferred for self-limiting, common, chronic, behavioral disorders as well as for ailments of

women, children and spiritual possessions[10]. However, in some cases, Allopathy is preferred for serious illnesses among children and is often combined with non-Allopathic systems for chronic illnesses (Wolffer, 1988 in Sri Lanka). According to Kleinman and Sung (1979), Allopathy is used to correct *disease* (dysfunction of the body) and non-Allopathic sources are used for eliminating *illness* (psychosocial outcomes of the disease). They found that 90% of chronic illnesses are taken to non-Allopathic practitioners whereas acute conditions were treated by Allopathy. The Puerto Ricans in the USA used Allopathy for "organic" problems whereas the "non-organic" problems were taken to the spiritualists.

MANIFESTATION OF AN ILLNESS: Another hypothesis deals with the **characteristics of the illness** like persistence of symptoms, nature of symptoms, degree of incapacitation. Studies have pointed out that severity and disruption leads to changing the non-Allopathic sources for Allopathy in India (Banerji, 1975; Rao and Richard, 1984) and elsewhere (Cosminsky, 1977; Cosminsky and Scrimshaw 1980; Woods and Graves 1976 Guatemala; Young 1980 Mexico; Slikkerveer 1982 Ethiopia).

However, persistence of an illness results in changing the non-Allopathic sources for Allopathic ones (Rao and Richard, 1984) or vice versa (Chen, 1982; Heggenhougen, 1980[a]; Schwartz 1969). On one hand, in India, Rao and Richard (1984) found that 82% preferred home remedies in the early stages of illness but if the illness persisted almost all (96%) switched to Allopathy. On the other, in Mauritius, Sussman (1981) found that the non-Allopathic healers, including the sacred

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[10]See Gould (1957), Djurfeld and Lindberg (1975), Wolffer (1988), Frankenberg and Leeson (1976), Cosminsky (1979), Lock, (1980), Ashraf et al. (1982) Maclean, (1967), Alland (1970), Hamnett and Connell (1981), Kroeger (1982) Stanley Yoder (1982) for examples.

healers were "utilised as first resorts only for ailments involving specific set of symptoms" but as illness become chronic and non-life threatening they became more popular (p.255).

Attribution of cause is believed to be a major determinant of multiple utilisation. According to Colson, division based on causes

"comes closer to accounting for the differential use of the resources than any other single variable considered" (1971, p.235).

Generally, supernatural causes get treated with indigenous remedies and natural causes were treated with Allopathy in India (Gould, 1957; Kakar et al., 1972; Bhardwaj, 1975; Morinis, 1978; Djurfeld and Lindberg, 1979; Kapur, 1979) and elsewhere[11]. Kakar et al. (1972) found that since illnesses like smallpox, measles and chicken-pox were attributed to supernatural causes they were exclusively treated by the folk practitioners, while illness like pneumonia - believed to be naturally caused - were treated by Allopathy. According to Opler (1963) attribution of cause based on the *Ayurvedic* system determined the usage behaviour of villagers.

The severity of illness, often coupled with degree of impairment, appears to be important in seeking care. As pointed out by Mechanic (1968, p.141)

"much of the behaviour of sick persons is a direct product of the specific symptoms they experience; their intensity, the quality of discomfort they cause, their persistence and the like".

Perceived **seriousness of the initial symptoms** has been found to be the single most important explanatory variable for initiating utilisation in several studies carried

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[11]For example, in Malaysia, Colson (1971) found that less than 3% of illnesses believed to be of natural origin were treated by the native healers whereas about 1% of the illnesses with supernatural origin were treated by the clinic. Similarly others like Simmons (1955), Foster (1962), Gonzalez (1966), Schwartz (1969), Alland (1970), Woods and Graves (1976), Cosminsky (1977), Kleinman and Sung (1979), and Fosu (1981) have found similar trends.

out in the west (Andersen, 1968; Bice and White, 1969; Hulka et al., 1972). Studies

have identified its importance in seeking Allopathic care in India (Gould, 1957, 1965)

and elsewhere (Schwartz, 1969 Admiralty Island; Colson, 1971 Malaysia; Teller,

1973 Honduras; Kleinman, 1980 Taiwan; Kroeger, 1982 Ecuador). Gould (1957,

1965) found that severity of illness determined the use of either the traditional or

Allopathic medicine in a village in North India. He found that while "critical

incapacitating dysfunctions" were taken to the Allopathic doctor "chronic

nonincapacitating dysfunction" were taken to the folk curer. Nichter (1977) found

contrary results to Gould's study in some cases (like children's illnesses) which were

taken first to the non-Allopathic sources and concluded that "Gould's observation may

be accepted only with qualification" (p.431). Young (1980) found that the

seriousness of an illness or symptom was the most important factor in the selection of

a therapeutic model in rural Mexico.

2.4. DISCUSSION

It is imperative to evaluate the strengths, shortcomings and relevance of the

models presented here in the light of the aim of this research, i.e. studying types and

patterns of utilisation behaviour in Bombay.

As demonstrated by this review, in their original form, none of the

theoretically and empirically deduced explanations of utilisation behaviour can

facilitate an adequate understanding of the phenomenon in a complex society -

medically and otherwise - like India. As mentioned earlier, some of the models have

limited applicability while others, despite their usefulness, suffer from theoretical and

empirical limitations. As the following discussion highlights, what is really needed is

a more comprehensive multi-dimensional framework of utilisation.

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Most factorial models deployed by studies on pluralistic societies are based on a limited set of variables. These models, as Colson (1971) put it, either look at the "features of the patient" (like class, gender, ethnicity) or the "features of the disorder" (like severity, cause). As can be seen, certain variables affect utilisation behaviour in two or more contradictory ways resulting in inconsistent findings. McKinlay's perceptive remarks in his seminal review (1972 p.115),

> "First the writing about empirical findings appear to have been generally more substantial then the findings themselves. Secondly, the findings to date have not been consistent, either in direction or in strength, with few attempts to co-ordinate results or to account for apparent disparities".

hold good for the literature on utilisation behaviour in medically pluralistic societies even today. One of the ways of resolving this is by simultaneously examining the relationship between the variables and determining their relative influence. Lieban (1981) too, has stressed the need to study a combination of variables which

> "include such variables as illness characteristics, social features and attributes of the practitioners" (p.228).

Since they interact with each other and produce different forms of utilisation behaviour, it is important not to study these variables in isolation but consider them as a whole. It is equally important to consider the progressive nature of illnesses and how they affect utilisation behaviour. As stressed by Lieban (1981),

> "Understanding the effects of these variables on health seeking behaviour requires diachronic as well as synchronic analysis, since the influence of various factors can change during the history of an illness and the sick person's experiences in trying to cope with it." (p.228)

It is, therefore, important to develop a multi-dimensional paradigm based on the above models to enable a more thorough assessment of the processes and determinants of utilisation behaviour. A multi-dimensional model rooted in the concepts and approaches specified in the above mentioned models, yet extending their

scope to cover some of their shortcomings will be more appropriate for studying

utilisation behaviour in Bombay. As McKinlay (1972) has rightly emphasised,

> "seldom do researchers in the area of utilisation behaviour adopt only one
> approach to the exclusion of all others, although one may be given greater
> emphasis" (p.140).

Despite their inadequacies, both types of above mentioned utilisation behaviour

models - those mainly viewing it as a process and those relating it to various factors -

are indispensable in the present attempt to understand why people take certain actions

when ill. Needless to say, utilisation behaviour is neither a singular act nor an event,

nor are its determining variables uni-dimensional. Various processes are involved in

the health-seeking behaviour and numerous factors seem to affect it. An

understanding of these intervening processes and factors on utilisation can be obtained

through a multi-dimensional framework.

As discussed above, there is a need to go beyond the study of 'a utilisation'

and concentrate on the process of utilisation i.e. the utilisation behaviour with its

intrinsic stages. It is therefore important to clearly **define stages of utilisation.** The

most common drawback of the models viewing utilisation behaviour as a process

(e.g. Suchman, Igun, Fabrega) is that they delineate the temporal events in an illness

situation without rigidly specifying the definition of stages. Moreover, these models

fail to differentiate between the stages involving medical interventions, i.e. actual

utilisation of sources and those comprising   events and actions not related to it. To

illustrate, Igun includes "communication to significant other stage" and "expression of

concern stage" in addition "self medication" and "treatment stage". The demarcation

of the stages of an illness can be derived objectively and subjectively. While the

former is a medical definition, the latter is derived from an individual's own

perception of an actual or a hypothetical illness situation. The demarkation of the

stages of an illness in the second instance is harder to obtain due to the complexity

inherent in the subjective definition. Fabrega (1973, p.472) has aptly summarised

this complexity:

> "the recognition, definition and responses associated with illness are variable,
> highly complex, and interconnected. Furthermore, time periods that underlie
> and demarcate an occurrence of illness differ in length, and the associated
> changes that take place vary as to rate".....

The stages of illness will in any case be reflected in the stages of utilisation

behaviour. In recognition of this, Fabrega (1973 p.472) has pointed out that,

> "the behaviour consequences for the individual of these changes also differ
> markedly, suggesting that different types of evaluations and decisions can take
> place, each having consequences which in turn feedback on the illness".

While appraising earlier studies, one finds that hardly any attempts have been

made to clearly **define utilisation** which could refer to any of the following:

1.   actual utilisation of services at least once (e.g. Gould, 1957), frequently or

regularly (e.g. Lasker, 1981), or

2.   hypothetical usage (e.g. Rao and Richard, 1984).

Often the definition of utilisation is based on usage within a specified period (e.g

three years in Lee's study, 1980). These results can be misleading since no attempts

are made to distinguish between those using multiple systems within an illness and

those using different systems for different illnesses. This is best illustrated by

Madan's study (1969). While reporting the results pertaining to the use of multiple

sources, he writes

> "A majority of the households (64.8 per cent) were found to combine different
> systems of medicine, and the reasons given in every such case of combination
> was that some diseases are more readily controlled or eradicated by treatment
> according to a particular system." (p.1483)

As can be seen, it is difficult to identify whether the usage referred to within illness or was illness-dependent. Moreover, very few studies (e.g. Finkler, 1981) make the distinction between those who are using multiple sources on a regular basis and those doing it for the first-time. Similarly studies do not distinguish between people using multiple sources on experimental or temporary basis before reverting to using single system, and those using it on more permanent basis.

The **definition of source of utilisation** needs to be more precise, especially the use of various non-formal options (e.g. home remedies, self medication, sacred sources). Some studies do not consider the non-formal sources as independent formes of care (e.g. Bhardwaj, 1975; Fabrega and Manning, 1979) whereas other do (e.g. Rao and Richard, 1984; Colson, 1971). While some do not consider the combined use of formal and non-formal sources to be a multiple usage, others do. In addition, most studies tend to group the sources of care into two broad categories (e.g. traditional and western) which is misleading. As will be seen in chapters 3 and 4, a wide variety within each of these general categories appears to be a norm rather than an exception. Moreover, concepts like 'traditional', 'indigenous', 'western', 'scientific' etc. may have different connotations to different people[12]. As will be seen in the following chapter, at times the titles of the practitioners are not always very clear. For example, in India, *Ayurvedic* and *Unani* practitioners who have undergone some formal training are officially registered as Registered Medical

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[12]Often people fail to volunteer necessary information because what is considered to be a medical system or a form of treatment by some people may not be considered to be so by others. At the same time, the classification of the systems can vary. For example, it was observed during the pilot interviews that many considered Homoeopathy to be an indigenous system of medicine together with *Ayurvedic* and *Unani* systems. Therefore, when inquired about their use of 'western' medical system, they failed to report the usage of Homoeopathic medicines. Some people even confused Homoeopathy with Home Remedies.

Practitioners together with those who have not received any formal training but have been dispensing Allopathic medicines for a number of years. Nor is it uncommon to find non-Allopathic doctors prescribing Allopathic drugs and vice versa in India (e.g. Jeffery, 1977). Often one practitioner dispenses therapies rooted in more than one medical system. It is therefore important to first gather data on individual sources of care and then group them appropriately.

Since academics and laymen do not usually share common terminology, it is important to **define, label and classify illnesses** clearly. It can be observed that usage behaviour has been studied with three types of definitions, namely professionally labelled (e.g. Finkler, 1981), subjectively defined (e.g. Heggenhougen, 1980) and without specifying either (e.g. Lee, 1980). Besides, not only are there differences in the way various illnesses are perceived and treated, there are variations amongst illnesses themselves. Studies have focused on a wide range of illnesses: mental to physical, minor to fatal, acute to chronic, culture-specific to universally found. Many studies have elicited preferences for a broad category of illnesses (e.g. minor and major illness) without identifying the actual illnesses comprising the groups. In medically pluralistic societies, ignoring differences between illnesses comprising these groups can be risky as it has repeatedly been observed that despite the agreement on broad categories, there is little or no consensus on individual illnesses. Often, utilisation preferences of the group have been based on an analysis of the total number of episodes reported during the study period without differentiating between several illness episodes experienced by the same individual and those experienced by various people of the sample. For example, Colson (1970) examined 520 episodes distributed over 301 individual. Since individual preferences

and habits are known to influence their treatment-seeking behaviour, any discussion on utilisation behaviour becomes meaningless until such influences have been controlled.

A certain amount of ambiguity in the literature is caused by a variety in the **methodology and data collection techniques**. The existing knowledge is mainly derived from anthropological studies geared to providing descriptive data. As Fabrega (1971) has put it,

> "to a very large extent topics dealt within ethnomedicine have not been subject to precise definition, systematised testing, subsequent refinement and elaboration, which in time, leads to the accumulation of valuable knowledge" (p.63).

Often the anthropological studies tend to concentrate on the unusual and the spectacular events in remote areas of the non-industrialised countries rather than the everyday occurrences of the majority. Moreover, as clearly demonstrated by Cosminsky (1977), "different methods, with their concomitant questions, and types of informant (lay vs shaman) elicited different patterns of responses ...." (p.325). The **sample size** tends to be small (e.g. 6 individuals in Janzen's study, 19 individuals in Kleinman and Sung's study) often drawn from a homogeneous population (usually from a small isolated village community). National data are not always available from most developing countries. Most studies have been carried out in villages or isolated communities as part of larger ones covering other aspects. According to Young (1980ª), the anthropological studies

> "sometimes lack extensive data to support their conclusions and base broad generalisations on relatively few cases" (p.107).

Many methodological weaknesses of these studies can be listed and attempts should be made to overcome these in a future study. Firstly, there appears to be no

uniformity on the **unit of measurement**. Both individual (often the head of the household, e.g. Rao and Richard, 1984; Bhardwaj, 1975) and family (any one member of the family, e.g. Madan, 1969; or all members e.g. Kasteler et al., 1976) have been used as units of measurement. Often the data was based on proxy reports rather than first hand ones (e.g. Fabrega, 1977). Secondly, the **recall period** tends to range from the current to previous weeks to any previous use at any time in the past (e.g. Madan, 1969; Bhardwaj, 1975), or the last recalled use. Thirdly, studies carried out in the non-western countries have noted low **accuracy in reporting** utilisation rates of traditional medicine as a result of interviewer-respondent barriers (Schulpen and Swinkel, 1980).

2.5. SUMMARY

The importance and complexity of the phenomenon has resulted in diverse literature. As a result a plethora of disciplines, theoretical frameworks, hypotheses, methods and empirical findings have been accumulated. As outlined above, a variety of factors and complex processes are known to be involved in health-seeking behaviour in general. This can be aptly summed up in the words of Kleinman (1980):

> "The impact of reading through these varied materials and my attempts to relate them to experience and to organise them within an overreaching comparative framework that could make sense, led to a predictable sense of confusion. Moreover, I find the empirical studies themselves to be confused and fragmented." (p. x)

Research on utilisation, although extensive, is not always relevant to the questions that must be answered about exclusive and multiple utilisation. Despite this mass of literature (which varies in size, methodology, disciplines, quality etc.), it is not possible to make definitive statements about the nature of utilisation behaviour.

Most of the relevant models and researches elaborated earlier appear to have limitations and inadequacies when taken on their own. Nor is it possible to say much about why and how various health-care sources are utilised. It is therefore necessary to focus on **how** individuals or groups make decisions, and **what** factors influence their behaviour.

The first group of models unanimously suggests that there are several stages of utilisation and people suffering from ill-health do not always rush to obtain professional health-care. They may delay seeking or entering the medical care by using home remedies and lay sources. When the illness becomes difficult to manage, they may decide to consult a professional and assume the sick-role. Often the treatment from a source of care may be insufficient and secondary sources may be used to complement it as a result. Alternatively, the current treatment strategy is totally revised due to various reasons (e.g. changes in the course of illness and its reinterpretation, assessment of treatment plan, suggestions from the lay network, financial constraints as in Igun's model). These revisions continue to be made until the patient moves to the stage of cure and rehabilitation. Their decision to choose **which** source of care and **why** may hinge on various factors. Since the majority of the stage models are descriptive accounts of decision to seek health-care, only a handful of the studies have attempted to identify determining variables (e.g. group membership in Suchman's model, ethnicity in Fabrega's model). The factorial models on the other hand concentrated on identifying the relevant factors affecting these health-care decisions. Aspects from both groups of models need to be combined, expanded and refined to accommodate the complexity and dynamism of the phenomenon as is evident in a complex society like India.

CHAPTER 3
PILOT WORK: PHASE I
MEDICAL PLURALISM IN BOMBAY AND ITS IMPACT ON
STRUCTURAL LEVEL

3.1. INTRODUCTION

There is, as discussed in chapter 2, a general lack of literature on medical pluralism and utilisation behaviour in urban India in general and in the city of Bombay in particular. Given that very little is known, a greater emphasis needs to be placed on the initial exploration of the setting (i.e. the societal determinants as specified in Andersen and Newman's framework) and the understanding of various aspects of utilisation behaviour and its individually based determinants.

In addition, the bulk of the literature focuses on the predisposing and enabling variables to the neglect of the equally important illness variable. In actual fact, the role of the former two variables is derivative from the illness variable. It would not be an exaggeration to say that the process of utilisation behaviour revolves predominantly around the nature, characteristics and course of an illness. Therefore, there is a need for all studies on utilisation behaviour to sharpen the focus on the illness variable. Likewise, the role played by the lay network, which has been generally neglected in the utilisation research, needs to be examined.

These considerations were predominant in formulating the following objectives for the pilot study:

1.   exploring the health-care delivery structure and the availability of medical sources in south Bombay

2.   exploring the role played by medico-cultural milieu in utilisation behaviour and incorporating it in the multi-dimensional framework

3.   incorporating the various dimensions of the illness variable in the multi-dimensional framework of utilisation behaviour. Various aspects of the

illness variable can be subdivided into:

i)   illness and the differential utilisation of sources, i.e. illness-dependent usage

ii)   stage-specific differential utilisation of sources, i.e. within usage

iii)   a brief discussion on illness-dependent or within-illness usage

iv)   selection of illnesses for the final study

4.   incorporating the role played by lay network in the multi-dimensional framework

5.   defining stages of utilisation behaviour

6.   selection of the most efficient data elicitation technique

The pilot study was carried out in three phases spread over a period of 2 years. Much was learnt during this stage of the research which may be seen as a feasibility study. In order to avoid gathering unreliable impressions as a result of brief field visits, it was necessary to carry out the pilot-study in stages and also allocate a substantial amount of time. The requisite information to meet the first two objectives were collected during phase 1. The data collected during phases 2 and 3, deal with the remaining objectives (3-6) and form the basis for developing the final model and the rationale behind the methodology to be presented in chapters 5 and 6.

3.2. METHODOLOGY AND DATA COLLECTION

Medical pluralism in India is not limited to the availability of a wide variety of medical sources but extends to a wide variety within each of them. However, the information available from official sources and published literature is not sufficient to gauge the extent of plurality in the medical sphere. The first phase was essentially an orientation phase geared towards obtaining information on the structural aspects of the health-care delivery system in south Bombay - both Public and Private Sector.

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The information was collected by direct observation and interviews of practitioners and personnel working in various establishments.

THE PUBLIC SECTOR: The field-study began in two government run Allopathic hospitals. About five weeks were spent (three weeks in one hospital and two weeks in the other) visiting various wards and Out-Patient Departments (O.P.D.) [1]. Later on, all three *Ayurvedic* hospitals of Bombay were visited. Nearly six weeks (spread over three months) were spent at a hospital in south Bombay, jointly funded by private and government sources. The paucity of studies and the uniqueness of hospitals specialising in *Ayurvedic* treatment within the health-care delivery system, justified the disproportionate allocation of time spent on the *Ayurvedic* hospitals as compared to the others.

THE PRIVATE SECTOR: Two Allopathic hospitals belonging to the private sector were visited for a week. Due to the absence of any Public or Private Sector Homoeopathic hospitals in south Bombay, the field-study had to be carried out within the clinics of six charitable institutions and three Homoeopathic specialists.

In addition, about ten weeks were spent in the Private clinics (dispensaries) of practitioners of the various medical traditions. They included three Allopathic, two

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[1] It should be noted that more people turned down the investigator here, than at any other institution and several reasons can be identified to explain this negative response. Due to the very harsh enforcement of the family planning campaign, many women were sterilised, either without their knowledge or against their wishes. This resulted in fear of the establishment and/or strangers. These women may have been apprehensive about the investigator representing such Governmental bodies. Some women with whom a rapport was established eventually, gave the above reasons for their initial reticence. Moreover, as one of these hospitals is attached to a premier medical school, encounters between researchers and patients are routine affairs. What caused the general apathy among patients in this hospital towards researchers in general was the latter's indifferent and condescending attitude to the former. On the other hand, the generally unconducive environment of hospitals with a high turnover (four thousand cases on a typical busy day) may be partially responsible for patients' indifference.

'*shudha*' or traditional and two modern *Ayurvedic*, two each of the Allopathic practitioners with *Ayurvedic* qualifications and vice versa, a practitioner of both *Ayurveda* & Allopathy although qualified only in Allopathy, a practitioner of Allopathy & Homoeopathy but qualified only in Allopathy and two practitioners of Allopathy with Homoeopathic qualifications. A week was spent in two Naturopathic clinics (one charitable and another private), and also with four Allopathic specialists.

Besides visits to the more mainstream establishments like hospitals and clinics of all formal systems, the first phase also entailed an exploration of some of the non-formal sources as well as the peripheral services. These included: a modern *Ayurvedic* manufacturing plant, an *Ayurvedic* dentist, medical stores selling raw medicinal substances and patented medicines, a Homoeopathic practitioner using computer soft-wear for diagnostic purposes, a part-time *Siddha* practitioner, self-proclaimed 'doctors' selling 'miracle' herbs (*jadi-butti*) on the streets, an astrologer specialising in medical astrology, an ear cleaner etc. A few medico-religious healers (one *mantravadi* and three spiritual healers) were also contacted to investigate this fringe, yet popular form of cure. Their specialisation ranged from removing misfortunes in general to complicated spirits or evil-eye based illnesses. Attempts were also made to gather information on health and related topics from the media. Besides interviewing healers from formal and non-formal systems, some patient-practitioner interactions (from *Ayurvedic* and Allopathic Private and Public Sector) were also recorded.

The following begins with an overview of the health-care delivery structure in Bombay and the multiplicity within and between various sources of care. It then examines the impact of the medical pluralism in the light of the interactions at the

structural level of the medico-cultural milieu, i.e. the interactions between various systems at the institutional as well as practitioner level.

3.3. MEDICAL PLURALISM IN BOMBAY: A DESCRIPTION

Bombay is interfaced between underdevelopment and industrialisation, and the disease pattern and remedial strategies adopted, reflect both extremes. Due to underdevelopment and the resulting malnutrition, there is a wide prevalence of diseases which have been controlled or eliminated in the developed world. Due to industrialisation and urbanisation, many illnesses rampant in western countries are also present in the city. This variety of disease patterns, compounded with the poly-ethnic complexion of the society, results in a highly complex and varied health-care delivery structure in Bombay. The extensive availability of resources in Bombay basically reflects the wide range of illnesses and the great diversity in ethnic, religious and linguistic constituents of the country.

A wide variety of treatment options - both eastern and western in origin - cater to the different needs of a highly segmented population of Bombay. These include formal systems (Allopathy, *Ayurveda*, *Unani*, Homoeopathy, Chinese, Tibetan), magico-religious and popular (folk and lay) traditions. These systems and/or traditions differ in terms of their aims, scope, motives, coverage, origins, qualifications, expertise, costs, location, ownership etc.

In addition to the plurality of medical systems, there exists a variety of sources within each of the major systems. These health-care sources from the Public and Private Sectors offer parallel services based on each of the four formal systems. Within both Public and Private Sector, various organisations and personnel provide additional options. Table 3.1 summaries the health-care options available in Bombay

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Table 3.1. MEDICAL PLURALISM IN BOMBAY: AN OVERVIEW OF MULTIPLICITY WITHIN AND BETWEEN MEDICAL SOURCES

		NON-ALLOPATHIC SOURCES	ALLOPATHIC SOURCES
INSTITUTIONAL HEALTH-CARE: Hospitals & Dispensaries	PUBLIC SECTOR	Government Municipal ESIS(Employee State Insurance Scheme)	Government Municipal ESIS Railway,Army etc.
	PRIVATE SECTOR	Charitable Jointly funded	Charitable Profit oriented Nursing Homes
PROFESSIONAL HEALTH-CARE: Doctors		Doctors (with university degree) Doctors (traditional education)/ *Shudha* I.M.P^1/R.M.P^2/L.M.P^3	Doctors Specialists etc. Doctors not trained in Allopathy I.M.P^1/R.M.P^2/L.M.P^3
SEMI-PROFESSIONAL HEALTH-CARE	PHARMACIES	Modern Traditional	Modern
	PERSONNEL	Midwives, *Dais* Unqualified assistants	Midwives *Compounder* Un/Qualified-Assistants,Nurses
SACRED HEALTH-CARE	MAGICAL RELIGIOUS	*Mantravadi*/Sorcerer *Bawa/Baba/* Pragmatic & Spiritual healers Religious leaders Religious practice Astrologers etc.	
POPULAR HEALTH CARE	FRINGE & FOLK CARE	Folk curers Travelling curers Lay 'specialists' Shop-keepers Herbalists Ear-cleaner Bone setter Media	Unlicensed practitioner Health volunteers Lay 'specialists' Shop-keepers Media
	LAY CARE	Mothers/Mother-in-law Grand parents/elderly members Relatives/'wise' caste members Neighbours/Friends Self medications/self care	

[1] Indigenous Medical Practitioner
[2] Registered Medical Practitioner
[3] Licensed Medical Practitioner

and provides a comprehensive guide to the pluralism within most of these options.

3.3.1 ALLOPATHIC SOURCES OF CARE

The presence of a wide variety of large and small hospitals, clinics and dispensaries, indicates the expansive nature of Allopathic medicine in Bombay. Although relatively expensive, it is the most popular, best organised, most widely distributed form of treatment. The Public Sector comprising government[2] and municipal institutions is comparatively well financed and reasonably well organised and attempts to make modern medical care accessible to the underprivileged. Although it is hard to be precise, the volume of Allopathic services provided by the Private Sector in south Bombay is substantially larger than that of Public Sector. The Private Sector care is easily available through numerous charitable and profit-oriented hospitals, nursing-homes and individual practitioners. It is not difficult to appreciate the size and popularity of the private Allopathic care in Bombay - a key medical centre - from the national figures. Nearly 60% of the Allopathic doctors in India are practising in the Private Sector (Jeffery, 1977) and 80% of all the doctors are located in the urban areas. The majority of the Private Sector Allopathic doctors are engaged in general practice and seem to play a pivotal role in providing health-care in India.

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[2]All four of the Government Hospitals in Bombay are situated in south Bombay. They are teaching Hospitals with more than 2350 non-maternity beds amongst them. It is difficult to imagine the size and volume of the Government Hospitals. Their buildings sprawl over several acres, and during visiting and dispensary hours, foyers of their main buildings resemble a busy train terminus. The size and number of people utilising the services is as overwhelming as the poverty, suffering, lack of facilities and perseverance of the staff. To illustrate with the largest of the four Government hospitals. Officially, it has 1,259 non-maternity beds. But additional beds on the floor (in wards and corridors alike) is a regular sight. With an annual expenditure in excess of 71 million Rupees (1985-86), it catered to nearly a million indoor & outdoor patients in that year. This gives an average of about 2700 indoor & outdoor patients per day and over 500 patients per hour in the out-patient departments.

Without doubt, the General Practitioners (G.P.) are the principle agent of health-care in Bombay. Almost every family (excepting the very deprived ones) which was contacted had one regular doctor. It is therefore not at all surprising to find that they are referred to as Family Doctors (F.D.). Almost all G.Ps. have their own clinics and some very busy doctors may employ another qualified doctor as an assistant (rarely as a partner). Their clinics are mainly situated on streets, alongside shops or in the street-level garages of buildings. Normally there is a flat fee for a 'course' (medicine lasting for three days) and the consultation is not separately charged. Additional drugs and tonics prescribed by the doctor are bought from a chemist. A separate charge is made for injections and sometimes a patient buys bottled drugs from a chemist with doctor's prescription and takes it to the doctor to be injected.

In addition to the above, individual practitioners with wide ranging qualifications abound in the city. Unlike western countries, there is considerable variety among practitioners of Allopathy on account of their qualifications. A practitioner may be qualified (i.e. holding a M.B.B.S degree), partially qualified (e.g. a B.A.M.S doctor who is actually trained in *Ayurvedic* medicine but dispenses Allopathy), or not formally qualified (i.e. a licentiates like the Indigenous Medical Practitioners). Some non-Allopathic practitioners surreptitiously dispense Allopathic drugs as traditional medications to their unsuspecting clients and have become very successful. This is especially common in the deprived areas of the city. The illegitimate "back-street doctors" posing as licensed practitioners by adding bogus qualifications and "letters" behind their names abound in poor sections of the city.

Different types of latest technology and health-care services supplementing the mainstream Allopathic care (e.g. pathology laboratories) is also widely available in

the city. The recent trend of prescribing extensive diagnostic tests has resulted in the mushrooming of small laboratories some of which have been housed in one corner of physician's clinic or nursing home. In additions, pharmacists and their assistants prescribe (unauthorised) drugs, especially to the poor who use them as substitutes for doctors. Equally rampant is the use of semi-professional personnel belonging to the Public and Private Sectors (nurses, technicians, chemists, *compounders* etc.) for medical advice and treatment.

3.3.2 NON-ALLOPATHIC FORMAL SOURCES OF CARE

Ayurved, Unani, Homoeopathy and Siddha are the four major non-Allopathic formal systems available in the city.

3.3.2.1. *AYURVEDIC* SOURCES: The organisation and distribution of health-care delivery under the *Ayurvedic* system in both the Public and Private Sector hospitals is similar to that of Allopathy. Besides the hospitals, there are many organisations and individuals who provide care in a traditional manner. The nature of *Ayurvedic* practice varies in accordance with the qualifications of the professional. They range between the formally qualified doctor with a university degree (B.A.M.S) to the apprentices of traditional *Ayurvedic vaids* known as *shudha*. In Bombay, *shudha* practitioners belong to the older generation and are rapidly declining in number. They are especially preferred in the treatment of chronic, complex and terminal illnesses. While most are generalists who treat a variety of ailments, some are renowned as specialists. Formally qualified practitioners often dispense *Ayurvedic* and Allopathic medicines and even use injections. Both modern and traditionally qualified practitioners of the *Ayurvedic* system freely use terminology and instruments (e.g. stethoscope, thermometer) rooted in Allopathy.

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Unlike Allopathic drugs, there is limited control and standardisation of *Ayurvedic* drugs. Different levels of preparations (raw, partially or fully prepared) are available from various sources (direct from forests and farmers, vendors, practitioners, manufacturers). The large manufacturers package standardised medicines and sell their products in all areas of the city. Most manufacturing firms have their own retail outlets in south Bombay. These shops resemble an Allopathic pharmacy but for the fact that they have a resident physician who acts as a pharmacist. The proportion of Bombay's population relying on patented *Ayurvedic* drugs has increased as evidenced by an increase in the sale and expansion of the distribution network of these companies. Since the majority of *Ayurvedic* raw materials can be used in their existing forms or with little preparation, a substantial portion of lay health-care utilises *Ayurvedic* preparations as part of daily dietary habits.

3.3.2.2. *UNANI* SOURCES: The *Unani* system of medicine does not appear to enjoy the same degree of popularity as other non-Allopathic systems in Bombay. A very small number of institutionally trained doctors practice *Unani*. The majority are *shudha* practitioners carrying on their family tradition. They are concentrated in the Muslim dominated areas of south Bombay. Most practise from homes or operate from small shops. They advertise occasionally but generally rely on the word of mouth for their clientele. Some have become popular amongst the non-Muslims clients due to their expertise. Some spiritual healers dispense *Unani* medicines based on Quran.

3.3.2.3. HOMOEOPATHIC SOURCES: In Bombay, Homoeopathy enjoys greater popularity amongst the middle-classes, though not as much as in Calcutta which has

the highest number of Homoeopathic practitioners in the world. Apart from the only Public sector hospital (situated in the suburbs), Homoeopathic treatment is provided almost exclusively by the Private Sector practitioners operating from home. Many, like their Allopathic counterparts, are considered to be Family Doctors and consulted regularly. A good number of Homoeopathic practitioners are amateurs - usually highly educated non-medical professionals - who taught themselves through postal courses. They prescribe drugs informally. Like the *Ayurvedic* pharmaceutical companies, the Homoeopathic ones have resident advisors who promote sales by dispensing their own brands. Some Allopathic doctors prescribe and dispense well-tried Homoeopathic medicines for certain ailments. Recently, a mobile Homoeopathic dispensary has been introduced in south Bombay to meet the demands of the white-collar workers.

3.3.2.4. *SIDDHA* SOURCES: The number of *Siddha* practitioners appears to be very small. After considerable efforts, a part-time *Siddha* practitioner was contacted for the study and according to him, these practitioners are mainly located in suburban areas where large number of south Indians tend to reside. They mainly operate from home on part-time basis and are generally approached through their kinship network.

3.3.3 NON-FORMAL SOURCES OF CARE

This category of sources form a heterogeneous group which on the one hand varies in terms of outlook and style, and on the other, considerable overlaps exist in approaches and practices.

3.3.3.1. SACRED: Despite modernisation, numerous magico-religion practices continue to perform medical functions in Bombay. An enormously large variety of non-orthodox magico-spiritual healers (e.g. *baba, bawa, bapu*) covering a large

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spectrum of mystical interventions (e.g. diviners, prophets, religious rites) are actively engaged in meeting the health related needs of the people of Bombay. Irrespective of which religion the magico-religious healers follow, they are believed to have supernatural powers to predict and cure illnesses. They are sought after especially for fatal and complicated illnesses. Their blessings, touch, glance, presence, utterances are believed to have healing powers and actively sought before an operation, in serious or life-threatening illnesses, disorders of children etc. The healing procedures of the magico-religious healers may take different forms, ranging from amulets (*tavij*) to exorcism (the spirit may be driven out by pulling afflicted person's hair, spitting on his/her face etc.). Essentially, practices based in Hinduism and Islam are used to heal illnesses, exorcise spirits, counteract evil eye and sorcery. Other religious minorities tend to have similar religious and spiritual healers. *Mantravadi* (one who treats with *mantras* or sacred chants) are also available to counteract problems arising as a result of evil eye (*buri/kharab nazar*), black magic (*meli vidhya*), spirit possession (*bhut-pret*) etc.

Most Hindus have brahmin family priests (*gor*) who together with temple priests (*pujari*) specialise in religious intervention and promotion of health. These family priests are the spiritual counterparts of the Family Doctors. There exist fortune-tellers who use various methods (e.g. reading of palms, feet, shadow and face, numerology) to foretell the illness. Some astrologers who specialise in charting out the medical history of individuals (on the basis of time of the birth) are regularly consulted prior to and during serious illnesses. They often make suggestions on how to find the most appropriate treatment. Some are street-side fortune-tellers claiming to predict illnesses or vulnerable days and suggest preventive and curative treatment.

They do so by having a parrot pull out fortune-telling cards or by reading individual's palm or face. Besides frequenting a range of supernatural healers, the people in Bombay can resort to propitiation, vows, blessings of deities, *dharmic* conduct etc. for therapeutic purposes. A great variety of Hindu, Muslim and Christian deities and shrines are regularly frequented by people to avert misfortunes including ill-health.

3.3.3.2. **POPULAR AND FOLK CARE:** Many kinds of popular and folk healers are found in Bombay and function in parallel to the formal health-care sectors.

YOGA: Besides the academic institutions, many private and charitable centres teach Yoga. These centres are to Yoga, what gymnasiums are to healthy living in the west. They prescribe yogic exercises for prevention as well as curing illnesses, especially the chronic and stress-related ones. In addition, many instructors teach and supervise daily yoga sessions at pupil's or their own homes.

NATUROPATHY: Most Nature Cure centres in Bombay tend to combine the western and Indian versions. Apart from one Nature Cure hospital (situated in the suburbs), there are a few privately run non-residential clinics offering consultation and treatment based on various traditions like hydrotherapy, magnet-therapy.

URINE THERAPY: *Shivambu*, made popular by a former Prime Minister of India, is based on the assumption that body excretes essential salts in urine, and drinking a portion of the urine (preferably the first discharge) replenishes the necessary salts. Drinking of cow's and young child's urine is considered to be an effective substitute to your own. Application of urine on affected parts also has therapeutic value. The *shivambu* technique is believed to have origins in *Ayurveda*. Although there are no specialist clinics, the *Shivambu* technique has a relatively small but staunch following and is used for both prevention and cure.

TIBETAN MEDICINE: It is difficult to say if there are any full-time practitioners of Tibetan medicines but some visiting practitioners (often claiming to be Dalai Lama's personal physicians) advertise in leading newspapers of the city and manage to attract many chronic and serious illnesses which cannot be successfully treated with other forms of medical systems.

ACUPRESSURE & ACUPUNCTURE: Clinics offering Acupuncture treatment - some run by people of Chinese origin - as well as an Acupuncture Research and Training Institute are available in Bombay. Its Indian variant is popular amongst the lower classes. Based in *Ayurveda*, it involves piercing of various organs. Acupressure technique, has become extremely popular amongst certain communities. In recent years, numerous informal and formal training centres (mostly charitable) offering regular courses in Acupressure, have mushroomed. Although some acupressurists practise on a full-time basis, most do so as a hobby.

FOLK HEALERS: A large number of folk healers in Bombay are self styled and unlicensed. Not only do they have a functional knowledge of certain medicines and techniques, they also have a sound grasp of their customer/patient's psychology. Many squat at road-sides, bus-stations and other busy spots displaying their 'specialities' and attract passers-by with their dramatics. Some are 'cuppists' who display charts of human anatomy, a few basic tools used in cupping and claim to treat most illnesses. Some are ear-cleaners[3] who purport to cure common illnesses.

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[3]For centuries the medical functions were performed by the ear-cleaners and barbers for the masses in the rural areas. In recent times they continue to function in diminished numbers. Their presence and patronage is limited to the poorer sections of the city. Although they are constantly on the move, they can be found at fixed locations on certain streets and where they sit, chat and treat. Their appearance (traditionally attired in whites, bright pink turban and a leather pouch) sets them apart from other passers-by. They have added to their leather pouch, a number of Allopathic drugs.

Some healers specialise in dealing with back trouble and treat through physical manipulation. Some are herb or root "doctors" and vendors of "rare" *jadi-buti* (herbs, plants, roots and minerals). They make exaggerated claims about the special healing powers and difficulties of collecting them from the Himalayan mountains.

LAY AND FAMILY CENTRED HEALTH-CARE: Like other popular healers some lay individuals have become specialists in the applications of herbal or *desi* (when literally translated means native) medicines and are regularly consulted by others. But lay care is mainly offered by an elderly female relative (therefore popularly referred to as *doshima nu vaidu* or "grandmother's" medicine), neighbour or family friends who have above average experience of dealing with illnesses. In addition to the herbal remedies, the lay care relies on *pareji* or diet regulation in the form of supplementation or abstinence from specific substances. Food substances are ascribed properties like *garam-thanda* (hot-cold), *bhare-halku* (heavy-light), producing *vayu* (wind), *pitta* (acidity, gall) and *kapha* (colds, mucus), causing *badi* (constipation) or *rechak* (loose stools). Apart from treatment (including diet regulation), they provide the necessary psycho-social support. Very rarely any decisions pertaining to treatment of major illnesses are taken without consultation with this group. A vast compendium of medical knowledge has been collected by women and the older generation in the form of songs, myths and practical instructions and is made available in all types of illnesses, often substituting professional care. Since the *Ayurvedic* system is firmly rooted in the culture, it seems to be a part of people's repertoire. This widespread knowledge coupled with the ease of making the majority of medicines turns a large portion of the population into experienced but unprofessional producers, who manufacture for personal

consumption. Most homes seem to have some form of herbal as well as patent medicines originating in formal medical systems, especially *Ayurved* and Allopathy. Moreover, most people had personal knowledge of most popular Allopathic and non-Allopathic medications used for five common illnesses. This was evident from the results of the sorting task (see chapter 4 for methodology). The sorting done by laymen was compared to those of two professional doctors (one *Ayurvedic* and one Allopathic). Whereas three out of five people managed to accurately sort 45 or more medications, only 12 people (16%) could sort less than 30 of the medications.

MISCELLANEOUS: Some fringe specialists, not necessarily formally qualified, provide part-time advice and treatment based on magnets, colour, prisms, biochemistry etc. Of these magnet-therapy appears to be more popular, especially for rheumatism, weak eye-sight etc.

MEDIA: The media (especially the television) are other major sources of acquiring information on health and illness for both the literate and illiterate population. In recent years there has been a spate of health magazines in the vernacular languages. Regular health columns in the media cover current advances in various medical systems and their paraphernalia.

3.4. THE IMPACT OF MEDICAL PLURALISM: INTERACTIONS BETWEEN SYSTEMS AT STRUCTURAL LEVEL

Utilisation behaviour is interfaced between, on the one hand, the demands from the individual members, and supply from the components within the medico-cultural milieu on the other. Therefore, any understanding of utilisation behaviour will be incomplete without comprehending the medico-cultural milieu.

In India, the integration of medical systems is not official but *de-facto*. This

coexistence of systems has resulted in a growing interdependence between them at two levels. At one level, consumers act as mediators between different systems by combining concepts and techniques in their utilisation behaviour. At the other level, the providers of care i.e. practitioners and institutions act as mediators between medical systems. At each of these levels, examples of indigenisation and westernisation of medical system can be observed.

The following illustrates how interactions amongst various medical systems can take place in the second component of the medico-cultural milieu, i.e the health-care delivery structure. Since the main focus of the study is to unravel the interactions at the first level, i.e. at the customer's level, they will be discussed in the following chapters. In order to capture the extent of interactions between systems, the following begins with a summary of essential differences in theory and practice of the *Ayurvedic* and Allopathic systems as perceived by the consumers and practitioners (see chapter 4 for methodological aspects).

Table 3.2. SUMMARY OF ESSENTIAL DIFFERENCES BETWEEN THE ALLOPATHIC AND NON-ALLOPATHIC PARADIGMS

ALLOPATHIC SYSTEM   **AYURVEDIC SYSTEM**

CONCEPTS OF HEALTH AND ILLNESS

ALLOPATHIC SYSTEM	AYURVEDIC SYSTEM
Health is equal to disease free state	Health is equal to physical, psycho-social, cosmic, well-being, equilibrium
Health is something to be achieved	Health is both-achieved and granted
Disease is equal to appearance of symptoms	Disease is equal to disequilibrium
Disease as an entity	Disease as a process
Ill-health is a result of external stimulation	Ill-health is a result of cosmic and physical imbalances
Ill-health is a disorder of a part	Ill-health is a disorder of whole person
Disease has organic causes	Disease has both organic and inorganic causes
Disease mainly caused by bacteria, virus etc.	Disease mainly due to susceptibility of individual's constitution
Body-mind dichotomy	Body-mind treated as a whole
Mind is of secondary influence	Mind is of equal influence in disease

DIAGNOSIS RELATED ASPECTS

ALLOPATHIC SYSTEM	AYURVEDIC SYSTEM
Body=machine; disease=breakdown and treatment=repairs	Body=dynamic system; disease=disequilibrium and treatment=restore balance
Diagnosis based on signs and symptoms	Search for patterns and causes
Specialised diagnosis and treatment	Integrated/holistic diagnosis and treatment
Diagnosis is objective and quantifiable	Diagnosis is subjective and qualitative
Physical and laboratory examinations are crucial	Verbal description is normally sufficient, some physical examination with little or no physical contact
Pain and discomfort considered to be just symptoms	Pain and discomfort are signs of internal conflict

TREATMENT RELATED ASPECTS

ALLOPATHIC SYSTEM	AYURVEDIC SYSTEM
Emphasis on eliminating symptoms	Emphasis on elimination of illness from roots
Emphasis on diseased organ	Emphasis on person as a whole
Emphasis on speedy removal of the disease	Emphasis on slow elimination and gradual restoration of the balance
Practitioner's emphasis is on efficiency	Emphasis is on personal involvement
Primary intervention with drugs	Minimum intervention with drugs

Little emphasis on diet regulation	Primary emphasis on diet regulations
Surgical intervention fairly common	Minimum surgical intervention
Universal and generalised treatments, isolated cures meaningless	Subjective and personalised treatments because isolated cures also matter
Drugs of synthetic and chemical origin	Drugs of natural origin
Dangerous side-effects	No side-effects, totally harmless
Standardised dosage	Personalised dosage
Less reliance on emotional and social support in treatment	Extensive reliance on emotional and social support in treatment
Sick person assigned passive role and drugs assigned active role	Sick person and the lay network is assigned more active role and drugs a passive role
Professional should be emotionally neutral	Professional should be emotionally involved this involvement is considered to be therapeutic
Professional is equal to a technician	Professional is equal to a healer
Professional neither assumes responsibility nor guarantees cure	Professional assumes responsibility for total cure and also guarantees cure
Professional derives authority from licence and other regulatory bodies	Professional derives authority mainly from supernatural sources, at times from licences, but rarely professional bodies

MISCELLANEOUS ASPECTS

Prevention mainly outside the body	Prevention both inside and outside the body
Emphasis on public health and hygiene	Emphasis mainly on personal health
Knowledge is rationally derived, only scientifically tested knowledge	Knowledge can be derived on both empirical and divine sources, non-empirical may be admitted
Education and training through special institutions	Education and training through pupillage or 'teacher-disciple'

PERCEPTIONS AND PRACTICE ASPECTS

Modern, western, futuristic	Ancient, indigenous, national heritage
Foreign, unsuitable for Indian people and climate	Indigenous, ideal for Indian condition
Formal, professional, organised	Informal, unorganised
Narrowly Focused, can learn from other systems	Broad, holistic in outlook, can teach Allopathy
Fast acting	Slow acting
Ideal for emergencies and surgical treatment	Ideal for chronic illnesses

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Ideal for symptomatic relief, quick and temporary cure	Ideal for removal of cause, permanent cure
Medicine is convenient to administer and take	Medicine is often prepared by patients, requires extensive preparation
Ideal for working person, ease of taking medicine	Ideal for non-working person, cumbersome to take
Taste-less medications	Bitter and awful in taste
Dosage is small in quantity	Dosage is large in quantity
Quite expensive	Very cheap
Hospitals, large infrastructure	No infrastructure, home-based
Most doctors are profit-oriented	Most *vaids* are dedicated and not interested in profits

3.4.1. INTERACTIONS AT THE INSTITUTIONAL LEVEL

3.4.1.1. **Hospitals:** The infiltration of one system into another, results in interaction between systems at the institutional level. This is most pronounced in the case of the *Ayurvedic* educational institutions and hospitals. They not only teach subjects like anatomy and physiology from Allopathic and *Ayurvedic* systems but as the following illustrates also use Allopathic terminology and paraphernalia.

Ayurvedic hospitals occupy a unique position by symbolising the extent of westernisation of traditional systems in India. Generally, hospitals as medical institutions are associated strongly with Allopathy. There is some evidence of prevalence of Ayurvedic hospitals (with in-patient facilities) in ancient India (Basham, 1976). However, they were not common in medieval India when Ayurvedic care was dispensed on out-patient basis by individual practitioners and their apprentices. These modern Ayurvedic institutions were established in this century and some after independence. The uniqueness of these Indian institutions lie in the fact that they are independent organisations unlike in some other countries (like Malaysia and China) where Allopathic and traditional systems operate side by side in the same hospital (Chen, 1981 for hospital in Kuala Lumpur).

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In India, *Ayurvedic* hospitals in both the Private and Public Sectors, are very similar in their location, appearance, organisation and working routines to their Allopathic counterparts. They - like the Allopathic hospitals - are housed in multi-storied buildings consisting of several wards, operating theatres, laboratory facilities, out-patient departments. They are equipped with laboratory facilities to carry out blood and urine examinations similar to Allopathic hospitals. At the same time, therapy rooms are also furnished with traditional and slightly improvised equipment to provide *Ayurvedic* treatment. They also adopt Allopathic techniques like intravenous blood or saline transfusions. Government *Ayurvedic* hospitals often use Allopathic medicine. For example, in 1985-86 a little under a quarter of their expenditure was on Allopathic injections, tablets, ointments etc. in Maharashtra state (Government of Maharashtra, 1988).

The long queues, crowded waiting rooms and wards with sometimes more relatives than patients are all too common in most Indian hospitals, Allopathic and *Ayurvedic*. This similarity extends even in the administrative hierarchy; the rota, uniforms and the titles which the staff bear are common to different medical institutions. English (Allopathic) designations like registrars, doctors, sisters, nurses and ward-boys are used by all, including illiterate patients. The registration, consultation and dispensing procedures followed are common to Allopathic and non-Allopathic hospitals alike. Since most hospitals belonging to both medical systems are attached to teaching institutions, its usual to find young student trainees (called 'interns') in their white coats assisting senior practitioners in their examination of patients in *Ayurvedic* hospitals.

The patient-practitioner encounter does not generally last any longer in the

Ayurvedic context than its Allopathic counterpart. It is not unusual for patients to ask the 'compounder' who dispenses the medicine for instructions or information pertaining to the ingredients in the medication and their possible side-effects.

Allopathic institutions in general are considered to be highly rigid and homogeneous but they too, are not exempt from the infiltration of practices from other their non-Allopathic counter-parts. They may retain western structures and organisation, but in practice there is enormous flexibility in their operation. They have acquired a distinctly Indian flavour by relaxing rules pertaining to food and visiting practices. Similarly, unlike their western counterparts where patients loose their identities and become numbers on wristbands and eat institutional food, the Indian patients continue to be persons, i.e. they use their personal belongings, are cared for by their lay group, can choose the team of specialists etc.. Similarly, they are allowed to keep part-time or round the clock attendants who are not medically qualified (i.e. are not nurses or paramedics). Although they are hired by the patient's family and have no association with the hospital, they are accommodated by the hospital staff. In fact, not only have they become a status symbol, most hospitals and nursing home actually encourage the family to hire such attendants to relieve pressure on the existing staff (especially during night-shifts).

3.4.1.2. **Medications:** Interactions between the various elements of the medico-cultural milieu is not restricted to hospitals, but also manifests in affiliated areas. It is most prominent in the westernisation of the *Ayurvedic* medications. *Ayurvedic* medicines are

available in bulk and in standardised form like the Allopathic medicines[4]. Large

manufacturers have heralded changes in the packaging and marketing of indigenous

drugs. Today *Ayurvedic* medicines are heavily advertised on the television, billboards

and in print, in the same way as consumer products. Medicines are named after their

Allopathic and *Ayurvedic* equivalents for illnesses. For example, *Livotrit* for repairing

and regenerating liver cells, *Rheumayoga* for rheumatic and musculo-skeletal disorders,

Vigorex for improved sex life, *Kofol* for throat troubles. Tonics and capsules like Liv-

52 (a herbal hepatoprotective preparation) are the *Ayurvedic* equivalent of vitamin

tablets. In fact, most people interviewed during the pilot study, believed Liv-52 to be

an Allopathic medicine. Contrary to the recommendations of the scriptures, *Ayurvedic*

medicines are now available as tablets and capsules rather than in powder and liquid

forms. Moreover, these come packed in plastic containers or foils. The ointments for

external use are also attractively packed in tubes and aerosol containers. Today, one

even finds *Ayurvedic* shampoos, toothpastes, beauty creams, band-aids, pain relieving

ointment sprays etc.

3.4.2. INTERACTIONS AT THE PRACTITIONER'S LEVEL

3.4.2.1. **Nature of practice:** It was observed that the practitioners combined different

forms of treatments in different ways. While some regularly prescribed medications

from more than one system, others either recommended supplementing their treatment

with alternative forms of care or were tolerant of their clients using multiple sources.

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[4]The formulas mentioned in the ancient texts are not rigid. A lot of latitude is allowed in the ingredients, their proportions and processing. In Ayurveda, the practitioner enjoys some discretion to replace ingredients with prescribed alternatives. It is therefore possible to find some variations in the standardised medicines currently marketed by different companies. Today the manufacturing practices are guided by market forces. They judiciously use modern technology in the preparations in order to ensure speedy production and greater volume.

The following provides a brief description of some of these practices.

Some *Ayurvedic* practitioners dispensed both *Ayurvedic* and Allopathic medicines but none asked the client to discontinue with essential Allopathic medicines in serious illnesses like cancer, B.P. and diabetes. Some not only prescribed Allopathic drugs as a supplement, they even referred their patients to Allopathic doctors. One such practitioner had established a network with three or four specialists and regularly referred clients to them. Often, the *Ayurvedic* practitioners take on Allopathic doctors as apprentices. Supernatural healers (e.g. *mantravadi*, *bawa*, *baba*) freely combined occult with herbal medicines and dietary restrictions as prescribed in *Ayurveda*. One muslim *baba* regularly prescribed *koranic* verses with *Ayurvedic* and Allopathic medicines.

Almost all non-Allopathic practitioners (excepting the sacred ones) not only used Allopathic instruments but regularly prescribed laboratory investigations. While treating patients suffering from illnesses like diabetes, they often resorted to Allopathic laboratories for regular monitoring of progress and feedback. They often resort to Allopathic investigative techniques (especially X-ray, blood, urine and sugar tests) to confirm their diagnosis. Sometimes, the *Ayurvedic* practitioners accept a previous Allopathic diagnosis of an illness and prescribe *Ayurvedic* medication and regimen.

All the *Ayurvedic* practitioners who were contacted were well versed in the Allopathic paradigm and some had no difficulties in interpreting the same illness in terms of both paradigms. There are many *shudha Ayurvedic* practitioners (classical-traditionalists) who have a working knowledge of Allopathy. Some even interpreted the fundamental *Ayurvedic* principles in the light of Allopathy and vice versa. While some of the anomalous bodily organs and processes within either systems were

accommodated to make convincing comparisons between *Ayurveda* and Allopathy possible, others were retained to establish the superiority of *Ayurvedic* paradigm.

Many *shudha Ayurvedic* practitioners have encouraged their children or grandchildren to qualify and practice as Allopathic doctors. In some cases where children (or grandchildren) could not secure admission into Allopathic colleges, they opted for modern *Ayurvedic* colleges and obtained B.A.M.S. qualifications rather then the traditional form of training. Another area signalling a break from tradition is the participation of women. Traditionally speaking, the non-Allopathic practitioners were all males. However, in recent years more than a third of the student population of modern non-Allopathic colleges (especially the *Ayurvedic* ones) in Bombay are women. To illustrate, two very well established *shudha Ayurvedic* practitioners not only encouraged their daughters to obtain modern qualifications, but their entire practice is being run by these women under their supervision. According to them their clients have not expressed reservations about being treated by a women *vaid*. They believe that their practice has actually benefitted and in fact the number of women clients has increased.

Many *Ayurvedic*, *Unani* and Homoeopathic practitioners, especially the recent graduates from modern colleges, have switched to Allopathic practice. It was interesting to note that the majority of their clients had no idea that their doctor was not trained in Allopathy. These practitioners prescribed Allopathic medicines almost exclusively. Many of them kept up to date with new developments within Allopathy with the help of the representatives of Allopathic pharmaceutical companies or medical journals.

Most non-Allopathic practitioners were more tolerant of clients using multiple

sources than their Allopathic counterparts. Apart from those who themselves prescribed or dispensed non-Allopathic medicines, the rest were against such practice. This was in sharp contrast to their non-Allopathic counterparts. Most non-Allopathic practitioners and those Allopathic practitioners who were sympathetic to non-Allopathic systems believed that sequential use of multiple therapies was beneficial. A few went a step further. Apart from certain combinations of therapies (e.g. simultaneous use of Allopathy and Homoeopathy) simultaneous use of most therapies was acceptable. Fundamental to the acceptance of multiple usage was their belief in efficacy of non-Allopathic systems.

These non-Allopathic practitioners were highly pragmatic in their attitudes. Although, none rejected other systems in favour of their own, very few failed to emphasise that in contrast to other systems, their system was "dealing with the most fundamental aspect of the illness". Since their system of specialisation was dealing with the "root cause of the illness" it should be the "primary" source of treatment. Other forms of treatments, according to them, should be used as supplementary sources or for specific short-terms goals (e.g. emergency).

Allopathic practitioners in India, unlike their western counterparts, not only prescribe, but also dispense medicines like practitioners of non-Allopathic systems. The ideal image of an *Ayurvedic* practitioner as one who fulfils his duty without any expectation of a reward is echoed among practitioners of other medical systems, including Allopathy. This is evident from the fact that they often charge their patients only for medication but not for diagnosis and other services. A professional, according to Parson, is one who is highly trained and does not sell goods. However, like their *Ayurvedic* counterparts, the Allopathic doctors also dispense and charge only

for medications.

Many Allopathic practitioners showed some keenness in learning *Ayurvedic* principles and acquainting themselves with popular conceptions of health and illness. As a result, many have developed tolerance to other systems, i.e. advising clients to seek Homoeopathic treatment. One Allopathic doctor regularly referred patients to a *shudha Ayurvedic* practitioner. Most Allopathic practitioners tend to prescribe diet regimens and suggest other culture specific precautionary measures (e.g. avoid prolonged exposure to the sun). Their failure to do so, according to some patients, was one of the reasons why they felt that the doctor had failed to diagnose the illness accurately. They reported being dissatisfied.

Although the western model emphasises a high level of precision in evaluating disease with the aid of sophisticated technical instruments, the Allopathic doctor in the Indian context relies far less on such techniques. This is not necessarily due to financial constraints, but because of his/her recognition of the totally different cultural milieu within which s/he is functioning. Thus in keeping with the indigenous method of treatment, the doctor emphasises equally on diagnoses based on the perception of the outward manifestations of illness as on the reliance on modern techniques. There is substantial emphasis on standardised or objective treatment in the western model, whereas, in India, the tendency is to individualise treatment procedures depending on the individual in question.

The Indian Allopathic doctors may have been educated to the same professional standards as their western counterparts, but they receive their training from fellow Indians and practice with Indian patients who influence their method and thinking. Intense competition between colleagues practising the same medicine has resulted in

little cohesiveness amongst professionals, and Allopathic practitioners, though considered to be highly professional in their approach are no exception. Although networks of referrals exist between various professionals (of the same or different systems) these are mainly based on other considerations rather than characterised by professional ethics.

3.4.2.2. Patient-Practitioner Relationship: The remarkable similarity in interactions amongst practitioners of different medical systems with their respective patients was a further indication of the mutual influence of contrasting paradigms on each other. Whereas an Allopathic doctor in the West has been transformed

> "from an artisan exercising skill on personally known individuals into a technician applying scientific rules to classes of patients" (Illich, 1977 p.25),

the Indian Allopathic doctor - a product of the Indian socio-cultural milieu - resembles Illich's artisan rather than the technician. This was most evident in the patient-practitioner dealings. In the majority of cases, the Allopathic doctor was a long standing "family doctor" and was considered to be a "member of the household". An Allopathic practitioner's interaction with patients was marked by an equal degree of informality and consideration for an individual's psychosocial aspect as in interactions of non-Allopathic practitioners with their patients.

On the contrary, non-Allopathic practitioners often deviated from their traditional role. *Ayurvedic* practitioners are generally believed to be popular because they offer extended explanations and spend much longer with a patient than an Allopathic doctor. However, there is evidence to suggest that their interactions with patients can turn out to be impersonal, brief and clinical. There were hardly any differences between the *Ayurvedic* and Allopathic hospitals as far as the history-taking,

diagnostic procedures and aspects of patient-practitioner interactions (e.g. length of encounter) were concerned. In the *Ayurvedic* hospitals the practitioners on an average saw more than hundred patients in a three hour session. The encounters between a patient and an average *Ayurvedic* practitioner in a hospital was ˊ brief and impersonal, and lasted for an average of 3-7 minutes per patient. It seems that the amount of time spent with the patient was not related to how busy the practitioner of either system was but on the personal relationship between the practitioner and the client. On an average an Allopathic family doctor spent relatively more time (4-10 minutes) discussing the illness as well as making social conversation (inquiring about other members of the family and their health) compared to most *Ayurvedic* practitioners who were not known to the patient. Irrespective of the kind of medicine practised by doctors, patients invariably visit them without prior appointment. The only exceptions perhaps are a minority of Allopathic specialists like dentists, gynaecologists and the super-specialists. Even if one had an appointment, delays were very normal across all systems[5]. Moreover, irrespective of medical system, there was limited physical examination and bodily contact (usually limited to the "feeling of the pulse" and use of a stethoscope). The diagnoses were usually carried out on the basis of verbal reports of the patients or the members of their lay groups.

The Indian scenario can be best explained by contrasting it with the patient-practitioner relationship in the west. Parsons (1964) has identified important aspects of the role of an Allopathic doctor and his/her relationship with patients in the west. The doctor is "a specialist whose superiority is confined to the specific sphere of his/her technical training and experience", maintains "affective neutrality..." and respects

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[5]Carstairs (1955) has vividly described his unsuccessful and frustrating attempts to plan his "day on western lines, by the clock" (p.121) in India.

his/her obligation "to put the welfare of the patient above his personal interests,..."

(pp.435-437). Similarly, in the western model as Cay et al. (1975) have pointed out,

> "The criteria for success and failure are doctor-determined: an operation *succeeds*, not because the patient thinks so, but because acid reduction, absence of diarrhoea, freedom from ulcer recurrence, completeness of antrectomy or vagotomy have been achieved." (p.30).

As observed by Freidson (1960),

> "the abstractly conceived professional role as described by such writers as Parsons may be qualified - indeed, sometimes, compromised - by the cultural and structural conditions in which it must be played" (p.382).

This is further complicated by the fact that in the Indian scheme of things there appears to be well developed sets of ideals for the doctor-patient relationship like other social relationships.

There is a greater emphasis on a certain degree of personal involvement in patient-practitioner relationship in India, which stands in sharp contrast to the affective neutrality in the western version. The formality and distance emphasised by Parson in the doctor-patient relationship was conspicuous by its absence in the Indian context which was generally marked by closeness and involvement. The practitioner - irrespective of the system - usually belonged to the kinship network. Alternatively, the practitioners were recommended by members of the lay group who have had positive opinion about them (usually based on their personal experience). That is to say, the doctor is chosen by the patient, rather than being assigned on the basis of a criterion like geographical location. As a result, their relationship is not just based on the professional's competence but also on the "vote of confidence" given by the patient's lay group.

Indian patients, therefore seemed to have altogether different expectations from their doctors compared to their counterparts in the west. They not only expected

complete cure from the ailment but also expected the doctors to give them continuous assurances and reassurances of complete cure. They tend to expect the doctor to take total responsibility. In the Indian context, a "good" doctor is identified with successful treatment and extent of personal involvement. The doctors are not only entrusted with the treatment of the patient but also his/her total well-being. It is therefore not unusual to find the patient or lay group saying "I/we leave everything in your hands".

In the western model, the doctor is expected to be "functionally specific" wherein s/he limits his/her involvement to the specific aspects of the disease and whatever else which directly affects the present illness. The doctor is therefore neutral to the attributes of the patient and largely concentrates on the diseased organ. The basic premises on which the Indian medical systems rest, are those which deal with the person as a whole. Therefore, the focus is not just limited to the diseased organ, but extends to cover his/her entire being - physical, mental and spiritual. And, individual characteristics are attached immense significance in the diagnosis of an illness and treatment. Any deviation from this approach generally results in the unpopularity of Allopathic doctors. Therefore, many Allopathic doctors approximate closely to the Indian outlook by imbibing such non-Allopathic medical practices.

Apart from their training in a given medical system, there was another dimension to the patient-practitioner relationship. This was reflected both, in the patients' limited degree of participation which barely extended beyond the role of passive recipients of therapy, and an active involvement in the treatment process. Their involvement in the assessment of the outcome was both direct and indirect. At times, clients constantly evaluated the treatment outcome with the doctor and lay-groups. At other times, they asserted their independence indirectly by seeking an

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alternative source of treatment.

The departure from the western model is further amplified by the active presence of the family and the lay networks in India. They often succeed in influencing the functioning of medical practice by trying to bend rigid rules (e.g. relaxing restrictions on food, visiting hours in an Allopathic hospital).

3.5. CONCLUSIONS

The foregoing analysis underscores the plurality within and between medical sources in Bombay. As a city made up of migrants - each with their individual medical cultures - Bombay has an enormous variety of medical sources. The rapid urbanisation and changes taking place in Bombay provide an appropriate testing ground for the adaptation capabilities and survival of divergent medical traditions.

The active role of magico-religious sources in providing supplementary care deserves to be highlighted. Although anthropologists have been fascinated for a long time with the use of scared sources, most utilisation studies overlook the importance of the medical role of religion. Historically speaking, religion has been inextricably linked with origin and survival of medical systems and practices in India[6]. However, Sacred sources are separated from other forms formal and non-formal healing by laymen as well as academics. Although extremely sketchy, the general discussion on the availability and use of Sacred sources says something about their medical role. In the Indian context, despite modernisation and urbanisation, magico-religious sources

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[6]For example, the origins of *Ayurveda* and *Siddha* have religious overtones and religious rites occupy an important role in *Ayurveda*. On one hand, religion has been instrumental in deterioration of certain specialisations (e.g. surgery was discouraged when Buddhist rulers assumed power) but on the other the Tibetan medicine survived because of Buddhist monks. Similarly, centuries ago religious sects like Muslims introduced *Unani* medicine and continue to patronise it until today.

continue to play an important role and hence should not be overlooked.

The discussion also highlighted the impact of pluralism on the structural level of the medico-cultural milieu, i.e. the interactions between systems at the institutional and practitioner levels. From a theoretical stand point, the non-Allopathic and Allopathic medical doctrines are mutually exclusive and diametrically opposed. But given the pluralistic cultural environment, the interaction among medical systems at the functional level results in a convergence among them.

Apart from the preliminary insight into the complexity and multiplicity of the medical culture of Bombay, this chapter highlighted the need to incorporate the societal context in the multi-dimensional framework. In fact, only by comprehending the societal context - of which the medico-cultural milieu is an integral part - that one can grapple with the complexities in the individual utilisation behaviour. The extent of medical pluralism is in fact determined by the societal context and this in turn determines the shape of the health-care delivery structure. The multiplicity, complexity and interaction between medical systems at the structural level of the medico-cultural milieu are but one manifestation of those at the societal level. Since the medico-cultural milieu is in continuous interaction with the individual's social and psychological characteristics, the former is likely to influence individual's health behaviour in general and utilisation behaviour in particular. Therefore, any meaningful attempt to study utilisation behaviour should recognise, from the outset, that individuals' behaviour is dependent on internal as well as external factors.

CHAPTER 4
PILOT WORK: PHASES II AND III
MEDICAL PLURALISM AND UTILISATION BEHAVIOUR:
DEVELOPMENT OF MULTI-DIMENSIONAL FRAMEWORK

4.1 INTRODUCTION

The second main aim of the pilot study, as discussed in chapter 3 was to concentrate on specific aspects of individual utilisation behaviour in the medically pluralistic context of Bombay which can be incorporated in the multi-dimensional framework. To recapitulate, the objectives of the Phases 2 and 3 were as follows:

1.   incorporating the various dimensions of the illness variable in the multi-dimensional framework of utilisation behaviour. Various aspects of the illness variable can be subdivided into:

    i)   illness and the differential utilisation of sources, i.e. illness-dependent usage

    ii)   stage-specific differential utilisation of sources, i.e. within usage

    iii)   a brief discussion on illness-dependent or within-illness usage

    iv)   selection of illnesses for the final study

2.   incorporating the role played by lay network in the multi-dimensional framework

3.   defining stages of utilisation behaviour

4.   selection of the most efficient data elicitation technique

4.2.METHODOLOGY AND DATA COLLECTION:PHASES 2 AND 3

The methodology behind any study is always contingent on the immediate research objectives. Since the main aim of the pilot study was to capture the inherent richness and diversity of the medico-cultural milieu as well as the impact of illness variable on utilisation behaviour, there was little attempt to gather representative samples.

Before proceeding further, a brief note on the manner in which access to the various medical establishments was obtained might be appropriate. As is customary in India, access to some of these establishments was initially obtained through the researcher's lay or social networks. The other hospitals and doctors were approached formally, where the investigator was introduced as a researcher. Even when no explicit permission was sought on occasions, the presence of the investigator was not objected to. Most of the private practitioners readily allowed access, and some went to great lengths to give details of their practice. Others referred the investigator to enthusiastic colleagues and co-operative patients. After the initial barriers were broken down, many of the patients were very enthusiastic about "participating in a research project" and volunteered information which was never sought. They readily introduced the investigator to fellow patients. Some patients who were hospitalized, reported meticulously the details of their progress and any new experiences. As a result, although totally unintentional, it was possible to 'follow-up' the ongoing treatment processes. This proved useful in identifying important issues to be focused on in the main study.

4.2.1 PHASE TWO: INTERVIEWS

Through observations and unstructured interviews, an attempt was made initially to understand the culturally determined processes relating to health and illness. Accordingly, diverse topics such as concepts of health, illness, body, treatment, the efficacy of a medical system as well as the individual's attitudes to and experiences of the various medical systems and practitioners were discussed. The principal aim of the second phase was to establish some order among these kaleidoscopic impressions and to use these as the basis for further inquiries into

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utilisation behaviour. The focus subsequently shifted to the treatment seeking procedures for illnesses such as cancer, arthritis, influenza, asthma, colds and acidity.

The intensive fieldwork, extending over a period of almost five months, was conducted in different types of clinics and hospitals. The selection of institutions, professionals and patients was unconventional, and was predominantly guided by the consideration of obtaining relevant and maximum information. Questions were addressed to people irrespective of their age, sex, occupation, health-status, income etc. The respondents in the sample therefore, comprised patients, their relatives and others. The selection of respondents was based entirely on their willingness to participate.

Interview Technique: During this phase, the majority of the patients were approached in a clinical setting. Typically, no formal interviews were carried out, instead an informal conversation was initiated with the respondents by addressing the purpose of their current visit. It took the form of either a statement (e.g. "So you have come to get some medicine!") or a question ("Have you come for your or your relative's treatment?" or "What are you suffering from?").

The subsequent questions addressed to the interviewee related to his/her present as well as past illness experiences, treatment strategies, the use of diet as a preventive and curative measure, the use of Home Remedies, self-medication, the cost of treatment, the role of the family, neighbours and friends etc. Information on their perceptions of the different medical systems and their application in illnesses

were also sought[1]. Each interview lasted between 5 and 45 minutes and approximately 170 people were interviewed.

The interviews were recorded for several reasons. Firstly, at the exploratory stage, it was important to gather as much information as possible. Secondly, since it was necessary to understand the use of language and common terminology as well as to improve interviewing skills for which the recorded feedback proved invaluable. Thirdly, it was important to keep the tone of the interviews as informal and as unobtrusive as possible. A small micro-cassette recorder proved ideal for this. People rarely noticed it. Interestingly, when the permission to record the interview was sought beforehand, though some individuals enjoyed the attention, most became too self-conscious and at times even suspicious, making it difficult to obtain reliable information.

4.2.2. PHASE THREE: QUESTIONNAIRES AND OTHER TASKS

The third phase of the pilot-study was carried out with the aid of three very simple questionnaires and other related tasks. The questionnaires elicited the patients' responses to hypothetical illnesses (though in some cases the respondents may have actually suffered from some of these illnesses). The questionnaires were administered on the Gujarati-speaking people - irrespective of their health status, age, sex, education, income etc. - in the presence of the investigator. The following section describes the aims and rationale behind each of the questionnaires (see Appendix 8 for translated copies of the questionnaires).

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[1]Sample questions (translated from Gujarati):
In what ways is Ayurvedic medicine better than Allopathic? (and vice versa)
For what kinds of illnesses would you use Homoeopathy?
What did you do before coming to this doctor?
What do you think is the cause of your illness?
What do you do when you have xxx symptoms?

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4.2.2.1. QUESTIONNAIRE ONE: The primary aim of this questionnaire was to gather information on how the three formal medical systems (i.e. the Allopathic, *Ayurvedic* and Homoeopathic) are viewed and differentially preferred for various illnesses. The prevalence of dependent usage studies (Appendix 6), suggest that an individual's preference for medical systems varies for different types of illnesses. In other words, a person may find one form of treatment to be more effective for some illnesses but not necessarily for others. In order to understand the differential preferences, a total of 46 commonly known illnesses and/or conditions were included in the questionnaire. The respondents (N=57) were asked to rank the three systems in their order of preference for each of the given illnesses.

4.2.2.2. QUESTIONNAIRE TWO: The basic aim of this questionnaire was to gather additional information on the treatment strategies including the stage specific or 'within' usage. Since it was clear from the interviews that people often changed their treatment strategies during an illness, the respondents (N=54) were asked to state their initial and subsequent treatment strategies for a given illness. They were asked to state separately what they would do at the time of onset of illness and how they would proceed if the first treatment was not successful. In order to understand the shifts and trends in the strategies, the question was left open-ended. They were also asked to state how long they would wait before seeking professional help. In addition, the questionnaire included a section on how often (never, occasionally or frequently) each of the 35 illnesses included in the questionnaire were actually experienced by them. Questionnaires 1 and 2 included illnesses which were selected by asking approximately fifty people to state the names of the most common illnesses. Thus, the original list included illnesses and/or conditions which were most

frequently cited by this group.

4.2.2.3. QUESTIONNAIRE THREE: This was aimed at finalising the selection of

illnesses and also for confirming the stage-specific nature of utilisation to be taken up

in the main study. As such, this questionnaire is an outcome of the earlier ones and

focused on the system preference and treatment strategies for only 12 illnesses. The

respondents (N=62) were asked to specify their early and subsequent treatment

strategies in the light of the four types of medical sources (three orthodox systems

and Home Remedies) during each of the given illnesses.

4.2.2.4. OTHER TASKS: For the first task, a group of respondents (N=80) were

asked to sort 12 illnesses (included in Questionnaire 3) into as many groups of similar

illnesses as they desired. On sorting, they were asked to explain their rationale

behind these groupings. This sample was gathered in the following manner. It was a

quota sample based on two gender and four income groups, i.e. 10 individuals per

cell. For the second task, another group of respondents (N=74) were asked to

identify one or more of the five common illnesses which could be effectively treated

with 50 common proprietary and non-proprietary medicinal substances. The illnesses

included were colds, headache, gas, acidity and constipation

4.4. RESULTS OF PHASES TWO AND THREE

The analysis of the data was carried out using quantitative and qualitative

techniques. This was done so that the sensitivity and subjectivity of the information

was retained. The following section individually addresses each of the tasks set out

in the introduction and reports the relevant results of the interviews and

questionnaires.

4.3.1. DIFFERENTIAL UTILISATION OF SOURCES

It is important to ascertain whether there is a differential preference for the various sources of treatment within and between illnesses, for if there is not, the whole concept of multiple utilisation will be rendered suspect.

By and large, the results of the pilot study indicated that overall Allopathy was the most preferred form of treatment besides Home Remedies. Yet, the other formal systems were marked by varying degrees of popularity, and in some illnesses their popularity was greater than that of Allopathy.

INTERVIEWS: During the interviews an overall consensus among the sample regarding the suitability of various systems for different illnesses was clearly evident. To be more specific, there was a general agreement on the suitability of *Ayurvedic* medicines for treating "minor or chronic illnesses" owing to the fact that such medicines were perceived to cause no side-effects and offer a long-term cure. For similar reasons, Homoeopathic medicines were considered ideal for children. On the other hand, Allopathic medicines were considered to be fast-acting, expensive and providing only symptomatic relief. However, they were believed to be the only option in an emergency, and in illnesses which were serious, fatal and requiring surgical treatment.

Despite the general agreement, there were no hard and fast rules about the application of a particular medical system for specific illnesses or episodes. That is to say, although a source of treatment may be judged suitable for a general category of illness, it would not necessarily be seen as most appropriate for specific instances within it. For example, although the non-Allopathic systems were popularly believed to be appropriate for children's illnesses in general, the Allopathic system was often

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preferred for fevers. Since a fever was considered to be an acute condition, a quick
and reassuring form of treatment was deemed necessary.

Their rationale behind their differential usage of various systems could be
summarised as follows:

(i)   Since different diseases have different causes and prognosis, they
            require different types of treatments and evaluative approaches.

(ii)   Illnesses vary in terms of their severity calling for use of different
            systems.

(iii)   Different systems are effective in treating different types of illnesses
            and in emergencies.

One of the frequently cited reasons for deploying illness-specific strategy was
the differential attribution of causes. This was evident in responses to a question like
"what should one do if one has a headache?". It almost always prompted a reply,
"depends on how one got it in the first place". For example, it was due to excess
pitta (gall) then the treatment would involve drinking milk or applying oil to head.
Similarly, if it was due to excess of *vayu* (wind) , it would involve taking substances
like asafoetida, ginger. Depending on the attribution of the causes, different sources
of treatment were deemed necessary. People seemed to have a multi-factorial and
multi-level theories of etiology. Accordingly, an illness either had an ultimate cause
(e.g. *prakriti*) or an immediate one (e.g. "something the person had consumed",
"lack of sleep", "watching television from a close distance").

It was also observed that faith in a given medical system was premised on
pragmatic considerations relating to its efficacy rather than on any deeper theoretical
understanding of the medical paradigm on the part of the individual. As discussed
above, almost everyone was able to list the positive and the negative aspects of the
various medical systems, and very few dismissed one system outright in favour of the

others. When respondents were asked to state whether they would exclusively use Allopathic or *Ayurvedic* system in an illness, most replied that they would prefer to use both. Though it was not unusual to find concepts like *dosha* (primary fluids), *pitta* (gall), *kapha* (mucus), *vayu* (wind) virus and bacteria in the day to-day medical vocabulary, their use did not necessarily mean any deeper understanding of these concepts[2]. The majority would say that although they had some idea of what these concepts meant they could not articulate them precisely, or, that they were not supposed to know what these were in the first place. Whatever the degree of familiarity, these concepts nonetheless served as important rationales underling individuals' pragmatic approach towards treatment procedures.

The use of different systems did not seem to get in the way of this pragmatism. Since the main aim for seeking treatment was to recover from an illness, it was only natural that pragmatic considerations should outweigh conceptual differences between the various systems. People did not necessarily see the Allopathic and non-Allopathic systems as being diametrically opposed to each other. Their medical world was definitely not as dichotomous as has been suggested by Gould (1957), Foster and Anderson (1978). Rather, the emphasis was more on the complementary nature of different forms of treatment, and their pragmatic application, i.e. maximising the gains strategy. This was amply reflected in the differential utilisation of sources.

QUESTIONNAIRE ONE: The respondents clearly showed illness specific

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[2]Similar lack of understanding about the principles of indigenous medical systems but not of its outcomes was observed in other parts of India (Gould, 1957). Others, like Press (1971, Bogota), Finkler (1980, Mexico) and Dobkin de Rios (1981, Peru) have found clients patronising a medical system without much understanding of the paradigm. In words of Dobkin de Rios (1981) "patients haven't the foggiest notion of what is going on around them" (p.52).

preferences (i.e. dependent usage). Almost the entire sample favoured the use of Allopathy in illnesses requiring surgery, such as cataract. The *Ayurvedic* system appeared to be more popular for the treatment of chronic (e.g. rheumatism), psychosomatic (e.g. sleeplessness, weakness) and culture-specific illnesses (e.g. 'gas', constipation). In some illnesses (e.g. constipation, 'gas'), Homoeopathy was preferred over Allopathy but not as much as the *Ayurvedic* system. In the common illnesses like colds, all three medical systems were preferred almost equally. In three ailments (colds, piles and jaundice) Allopathy was preferred as much as the *Ayurvedic* system.

Apart from the illness-specific preferences, several overall preferences for medical systems could be obtained from the data. This was done by preferentially ranking all three medical systems for each illness included in this study. The popularity of each system for a given illness was determined by counting the number of respondents preferring it the most. The system with the maximum number of first preferences was treated as the most popular for that illness. The results show that the preference for Allopathy was significantly higher than either the *Ayurvedic* or the Homoeopathic systems, across all illnesses (*t* test *p*= .000). The majority of the sample preferred Allopathy for the treatment of the majority of the illnesses (in 63% of the total ailments i.e. 29 out of 46). As a next step, an index of the overall preference for a medical system for each individual was obtained. It was based on the number of illnesses for which a system was accorded first preference. Accordingly, if a system figured as an individual's first preference in more than two-thirds of the illnesses (31-46), it was regarded as his/her **strong** preference. Where the preference ranged between a third and two-thirds of the illnesses (16-30), it was

held to be a **medium** preference. Similarly, if the preference was limited to less than

a third of the illnesses (15 or less), it was treated as his/her **weak** preference. The

popularity of Allopathy is also reflected in the percentages of **strong** preferences for

the respective systems: 23% for Allopathy, 4% for Homoeopathy and 0% for the

Ayurvedic system. However, people with a **strong** preference for Allopathy

preferred non-Allopathic systems for certain illnesses more (e.g. jaundice, 'gas').

The order of preferences for each of the medical systems is displayed in

Table 4.1. As can be seen, Allopathy was either the most popular or the second most

Table 4.1. PERCENTAGES OF RESPONDENTS EXHIBITING DIFFERENTIAL FIRST PREFERENCES FOR MEDICAL SYSTEMS

PREFERENCES			% EXHIBITING THE ORDER (N=57)
HIGHEST	SECOND HIGHEST	THIRD HIGHEST	
ALLOPATHY	AYURVEDA	HOMOEOPATHY	45
ALLOPATHY	HOMOEOPATHY	AYURVEDA	23
AYURVEDA	ALLOPATHY	HOMOEOPATHY	21
HOMOEOPATHY	ALLOPATHY	AYURVEDA	11

Based on the frequency of first preferences

popular system across illnesses. However, the non-Allopathic systems were preferred

in more illnesses than Allopathy by 32% of the sample. This strengthens the case for

the prevalence of differential preferences amongst the sample.

Of the two non-Allopathic options, the *Ayurvedic* system was more popular.

Although a slightly larger number of individual users indicated a **strong** preference

for Homoeopathy (4%), on an overall basis it was less popular. In 12 ailments (26%

of the 46 illnesses) the preference for the *Ayurvedic* system was greater than either

for Allopathy or Homoeopathy. Whereas 25% of the sample preferred not to use the

Homoeopathic system in any of the illnesses, only 2% (N=1) was negatively disposed towards the *Ayurvedic* system. Whereas only 10% of the sample limited the use of the *Ayurvedic* system to 1-4 illnesses, as much as 30% of the sample did so in the case of Homoeopathy[3].

QUESTIONNAIRE TWO: The role of self-medication (of *Ayurvedic*, Allopathic and mixed origins) was noticeable from the results of Questionnaire 2. It was both the first and most frequently mentioned source of treatment by the sample. In four out of five illnesses or conditions included in the study, all respondents preferred Home Remedies in the first stage of utilisation. In the remaining illnesses a need for professional care during the first stage was expressed by one or more respondents. However, the number of respondents doing so was very small. Only 20% of the total sample expressed the need to seek professional help during this stage for at least one of those illnesses. Thus, it can be deduced that the early stage of utilisation is essentially a self-medication stage. That is to say, people begin their treatment with Home Remedies and later move on to using professional sources. In certain conditions like headaches, some people preferred not to seek professional help at all and continued with a new permutation of popular care.

Most respondents preferred professional intervention (mainly from an Allopathic doctor) only after the self-medication had failed. The number of respondents expressing the need to use professional sources in the later stage varied across illnesses. It ranged from 35% for headaches to 54% for chest-pain. For serious conditions like blood in stools, chest-pain, vomiting and unconsciousness,

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[3]On the basis of the frequency of second preferences, the most popular combination seems to be Homoeopathic-Ayurvedic-Allopathic (28%) followed by Ayurvedic-Allopathic-Homoeopathic (23%) further suggesting that the Ayurvedic system is more popular than the Homoeopathic system.

most people preferred to seek professional help within a few hours of the onset of the illness, whereas in milder conditions like headaches, colds, constipation and skin diseases, they would wait for a few days or even weeks before seeking professional help.

QUESTIONNAIRE THREE: The results of Questionnaire 3 presented in Table 4.2 and Table 4.3 further confirmed that Allopathy was the single most popular formal system across stages. It was the only conceivable option for illnesses like cancer and typhoid. It is preferred over *Ayurvedic* system by majority of the sample in illnesses like B.P. diabetes and piles. On this basis, it is appropriate to say that a significantly large number of people prefer to use Allopathic sources, once the non-Allopathic systems have either failed to cure or control the illness. Its greater usage is perhaps also the result of the widely held belief

Table 4.2. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS SELECTING A SYSTEM AT LEAST ONCE IN EARLY OR LATER STAGE (QUESTIONNAIRE 3, N=62)

	AT LEAST ONE STAGE			
	ALLO	AYU	HOMO	H R
ACIDITY	42	45	16	37
GAS	32	50	15	45
HEADACHE	34	36	13	36
CONSTIPATION	24	52	11	48
COLDS	55	36	16	42
JAUNDICE	24	68	3	19
TYPHOID	92	10	1	8
PILES	52	45	11	45
RHEUMATISM	42	39	18	11
B.P.	74	31	10	15
DIABETES	60	37	8	15
CANCER	92	12	5	3

Due to a shift in preference, the sum of percentages may be greater than 100.
KEY:ALLO=Allopathy   AYU=Ayurved   HOMO=Homoeopathic   HR=Home remedies

in Allopathy as the most effective form of treatment for serious and complicated illnesses. However, other systems, with the exception of Homoeopathy, were more popular with the treatment of certain types of illnesses (e.g. the *Ayurvedic* system for

jaundice and Home Remedies for constipation).

The full implications of the stage-specific preferences for each of these systems presented in Table 4.3 will be discussed in the following section. For the present, it will suffice to note that for all the illnesses, the greater proportion of the sample preferred Allopathy in both early and later stages. The preference for the non-Allopathic systems however was higher in only three instances. Firstly, in common illnesses (acidity to colds) Home Remedies are preferred during the early stage but not necessarily in the latter stage. Secondly, in jaundice, the *Ayurvedic* system is preferred for both the stages. Thirdly, most preferred the *Ayurvedic* system for piles during the early stage, but nonetheless shifted to Allopathy during the later stage.

4.3.2. STAGE-SPECIFIC UTILISATION BEHAVIOUR

There is sufficient evidence to suggest that people do not necessarily prefer to continue with the same source of treatment throughout the course of an illness. Therefore one of the aims of the pilot-study was to attempt to reformulate the concept of utilisation behaviour in the light of the changes in the treatment strategies.

INTERVIEWS: The differential use of sources can also manifest within an illness. That is to say, different sources are used for the same illness by the same person. The majority of the sample saw little harm in using different systems - sequentially and simultaneously - during the course of the illness. It is in fact considered by some to be essential for obtaining an effective cure.

The rationale behind their multiple usage of various systems within an illness can be summarised as follows:

(i)   Although on the whole, a disease can be treated more effectively with a particular system, specific stages of an illness are more amenable to

Table 4.3. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS SELECTING A SYSTEM DURING EARLY AND LATER STAGES (QUESTIONNAIRE 3, N=62)

	EARLY STAGE				LATER STAGE			
	ALLO	AYU	HOMO	H R	ALLO	AYU	HOMO	H R
ACIDITY	21	24	11	37	36	32	13	11
GAS	13	29	7	44	27	40	13	10
HEADACHE	32	16	11	34	57	26	5	10
CONSTIPATION	8	32	10	47	19	44	10	19
COLDS	23	19	8	40	45	23	13	13
JAUNDICE	13	58	3	19	23	58	0	10
TYPHOID	81	7	1	8	87	5	0	1
PILES	31	42	11	8	58	23	5	8
RHEUMATISM	31	32	16	10	36	36	11	7
B.P.	47	27	7	13	69	15	7	1
DIABETES	40	34	5	15	58	23	7	3
CANCER	79	10	3	3	87	5	1	0

Those who preferred more than one medical systems (4% of the total sample) have been excluded while calculating percentages in the Early and Later Stages.

KEY:ALLO=Allopathy AYU=Ayurved HOMO=Homoeopathic HR=Home remedies

treatment with other systems.

(ii) The diagnosis of one system can be better than that of another for a certain category of illnesses.

(iii) Since the dissipation of symptoms does not always mean complete cure, further treatment with a different system may be necessary.

(iv) Once certain illnesses are controlled with one system, a different system is necessary for recuperation or preventing relapses.

One could illustrate the above "rules of thumb" with the example of jaundice (infectious hepatitis). Although its symptoms may be apparent even otherwise (yellowness of the eyes and urine), only a urine test with the aid of the Allopathic procedures can conclusively diagnose jaundice. But at the same time, it is popularly believed that Allopathy offers no remedy for jaundice. Whatever treatment there is, is only available from the *Ayurvedic* or magico-religious sources. Either of these

sources can be combined with Allopathy (vitamins and tonics) for speedy recovery and recuperation thereafter.

A typical treatment strategy can be described as follows. At first, when the symptoms may be not very clear or serious, sources within the popular sector were usually preferred as initial treatment. These decisions were usually made by the individuals themselves or on the recommendations of the lay group. Subsequently, a professional of a suitable medical system was consulted either for diagnosis or treatment. In some cases, a second form of treatment was chosen and used simultaneously with the first, whereas in other cases it was used independently. This strategy may undergo further revisions as new demands may be placed. This differential application of sources within an illness as a result of various diagnostic procedures and remedial actions leads to a sequential treatment strategy, i.e. patterns of utilisation behaviour.

QUESTIONNAIRE TWO: Although the results of Questionnaires 1 and 2 appeared to be similar, there were noticeable differences in the volume of usage of the different systems in the two stages of illnesses. This can be best illustrated with the case of constipation. The sample for Questionnaire 1 and that pertaining to the early stage of the illness in Questionnaire 2 indicated a similar volume of preference (7% in each case) for Allopathy. But a much higher proportion of the sample (57%) relating to the later stage of the illness of Questionnaire 2 identified Allopathy as their preference. In short, the continuation of the illness into the later stage necessarily results in a shift in the preferences. Therefore, although 'dependent usage' was evident in Questionnaire 1, differences in usage between the two stages of illness in Questionnaire 2 strongly suggested that 'within usage' should not be

ignored.

QUESTIONNAIRE THREE: The results of this questionnaire further corroborated

the above findings suggesting that 'within usage' was more typical of the two types of
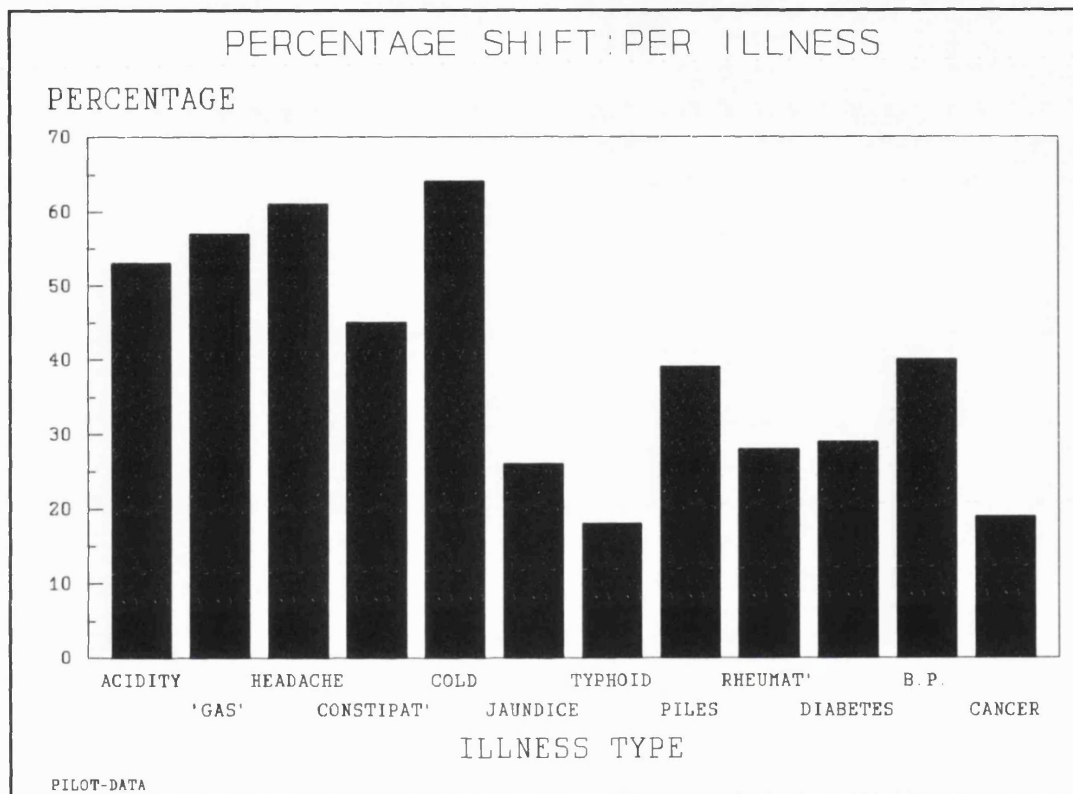
Figure 4.1. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS WHO SHIFT TO A NEW SOURCE IN THE LATER STAGE

utilisation behaviours. Nearly two out of five people in the sample (40%) did exhibit

a shift in treatment strategy. There is, as can be seen from Figure 4.1, a

significantly high proportion of the sample preferred to abandon their initial treatment

strategy in favour of a new one. However, the proportion varied according to illness

types (χ^2=112.2 p=.000 df=4) and individual illnesses ((χ^2=212 p=.000 df=11).

For some illnesses like colds and headaches, more than half of the sample preferred

to alter the treatment strategy in the later stage, whereas in others, like rheumatism,

jaundice, and cancer, the preference for an alternative source of treatment was

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noticed in only a quarter of the sample.

Having ascertained that people altered their treatment strategy, it was important to examine how the different systems were utilised for different illnesses. There appears to be significant difference in the usage of medical sources (excepting Homoeopathy) between the two stages for most illnesses (McNemar Tests). However, it is not surprising to find that there was no difference in usage for the two stages in the cases of cancer and typhoid since these are considered to be acute and serious illnesses and Allopathy is believed to be the only effective means of cure.

Table 4.4 displays the percentage of people (out of the total number who preferred the system in the early stage) who decided to shift to another form of treatment. These are in fact the multiple users. It seems that those who prefer Allopathy were less likely to switch to non-Allopathic systems than vice versa. In other words, when the first source of treatment was Allopathy, the change in treatment strategy was less frequent than when it was a non-Allopathic treatment, especially the home-remedies. This is

Table 4.4. PERCENTAGES OF RESPONDENTS WITH SPECIFIC SYSTEM PREFERENCE IN THE EARLY STAGE SHIFTING TO ANOTHER SOURCE IN THE LATER STAGE FOR EACH ILLNESS INCLUDED IN QUESTIONNAIRE 3

ILLNESS	SYSTEM PREFERENCE IN EARLY STAGE			
	AYU	ALLO	HOMO	H R
ACIDITY	53%	31%	40%	70%
'GAS'	50%	17%	25%	82%
HEADACHE	50%	4%	71%	76%
CONSTIPATION	25%	60%	17%	62%
COLDS	67%	43%	40%	72%
JAUNDICE	17%	13%	100%	50%
TYPHOID	75%	6%	100%	80%
PILES	54%	11%	57%	13%
RHEUMATISM	10%	21%	40%	91%
B.P.	59%	10%	50%	100%
DIABETES	43%	4%	33%	78%
CANCER	67%	6%	100%	100%

% = total N shifting to a new system x 100
total N preferring the system in early stage

particularly true in the instances of illnesses (cancer, diabetes, typhoid and headaches) for which Allopathy is perceived to be the only effective means of cure. However, in some common illnesses (constipation, colds and to a lesser extent acidity), a substantially higher proportion of the sample who preferred Allopathy in the early stage moves to non-Allopathic sources. On the other hand, a large number of those who prefer the non-Allopathic systems in the early stage tend to revise their treatment strategies subsequently. As can be seen, those who prefer the *Ayurvedic* system tend to switch to other sources except in the case of jaundice, rheumatism, and to some extent constipation. This is perhaps a reflection of the popular belief that these illnesses are better treated with the *Ayurvedic* medicines. The switch to other sources is maximal in the illnesses where Homoeopathy was the original source of treatment. Apart from constipation, 'gas' and diabetes, the majority of those who resort to it end up revising their strategies. Similarly, almost all of those who prefer home-remedies switch to professional sources except in the case of piles.

Having identified the extent of the shift away from the source of treatment used in the early stage, it would be interesting to assess the redistribution of the preferences in the later stage of utilisation (the proportion of new entrants to the system). Table 4.5 suggests that in the later stage, the proportion of the new entrants into the *Ayurvedic* and Allopathic systems is larger in comparison to the other systems. Although the percentage of new entrants into Homeopathy and home-remedies appears to be higher for serious illnesses, these figures are inflated due to the smaller size of the sample in each of these categories.

In short, there are shifts between the systems during the two stages for most of the illnesses. Such differential usage tends to be overlooked when the respondents

Table 4.5. PERCENTAGES OF RESPONDENTS WITHIN EACH SYSTEM WHO HAVE SWITCHED TO A NEW SOURCE IN THE LATER STAGE FOR EACH ILLNESS INCLUDED IN QUESTIONNAIRE 3

ILLNESS	PERCENTAGES OF NEW USERS TO TOTAL USERS OF THE SYSTEM IN LATER STAGE			
	AYURVED	ALLOPATHY	HOMOEOPATHY	HOME REMEDY
ACIDITY	65%	59%	38%	0%
'GAS'	52%	71%	63%	17%
HEADACHE	69%	66%	33%	17%
COLDS	71%	72%	63%	13%
CONSTIPATION	44%	83%	17%	8%
JAUNDICE	17%	50%	0%	0%
TYPHOID	67%	13%	0%	0%
PILES	14%	43%	0%	40%
RHEUMATISM	18%	32%	14%	50%
B.P.	22%	40%	50%	100%
DIABETES	14%	33%	50%	0%
CANCER	33%	15%	100%	0%

are required to specify, as in Questionnaire 1, an overall system preference for an illness. The results stated above clearly show that the treatment strategies vary between the stages within an illness. Therefore, studies on utilisation behaviour have to take into consideration differential usage not only across illnesses, but also across stages of utilisation.

4.3.3. A BRIEF DISCUSSION ON DEPENDENT OR WITHIN ILLNESS USAGE

As noted in the first section, when people are asked to state their preferences for medical systems for different illnesses (e.g. Questionnaire 1), they usually report illness-specific usage. That is to say, their preferences are illness dependent. But the results obtained from Questionnaires 2 and 3 indicate that people also express preferences which are stage specific. For example, in the case of piles nearly 80% of the sample of Questionnaire 2 prefer Allopathy in the later stage (Home Remedies

in the early stage) whereas that of Questionnaire 1 indicates an equal preference for both the *Ayurvedic* (41%) and the Allopathic (38%) systems. Approximately 6% of the sample for Questionnaire 3 preferred to combine more than one medical system for treatment within one treatment strategy, the rest who expresses preference for more than one system preferred to use them sequentially.

The interviews also highlight the fact that although dependent usage is indicated in hypothetical situations, this does not always correspond to the form of usage during the actual occurrence of illnesses. In reality, many diseases are not amenable to precise diagnosis from the onset of the disorder for various reasons. This means that different forms of treatment are tried out prior to determining the appropriate one for an illness. They stated that unless they had a predetermined pattern, they would seek an alternative only when one form of treatment failed. Wherever studies on utilisation behaviour have been carried out, both dependent and within illness usages have been observed (see Appendix 6 for more details). In the absence of studies on utilisation behaviour in Bombay, it is hard to say which of the two types of utilisation is predominant in the city[4]. However, the pilot study suggests that multiple utilisation of both kinds - within-illness as well as illness-specific - can be observed in Bombay.

Moreover, it has already been observed that all responses to dependent usage are mostly based on hypothetical cases of illnesses. Therefore, in order to understand utilisation behaviour in its entirety, it will be necessary to consider the form of usage in the actual instances of illnesses rather than in hypothetical

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[4]Health-related issues were only touched upon by Godwin (1972). Yet, in this minority community (Christians) based in a small suburb in the outskirts of Bombay, both illness-specific preferences as well as incidents of within-illness usage were observed by him.

situations.

4.3.4. SELECTION OF TYPES OF ILLNESS

Previous studies on utilisation behaviour have focused on generic terms like serious or chronic illnesses, rather than on specific illnesses. As discussed earlier, illnesses vary in their characteristics and course. Therefore, it is necessary to study the nature of utilisation behaviour for either individual illnesses or specific groups of them.

The illnesses to be included in the final study were piloted in Questionnaire 3. This final list was derived from the results of Questionnaires 1 and 2. Care was taken to ensure that illnesses[5] with diverse characteristics as well as differential treatment strategies (especially for *Ayurvedic* and Allopathic systems) were included, and for the same reason, were grouped under four categories[6]. These are as follows:

1.   common illnesses or conditions (acidity, headaches, constipation, cold, 'gas'),

2.   self-limiting illnesses (jaundice and typhoid),

3.   non-serious but chronic illnesses (rheumatism, piles), and

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[5]Some of these are considered to be complaints, ailments or conditions rather than illnesses. As discussed in chapter 1, for the purpose of the study, any disturbance in health - irrespective of the seriousness or disruptive nature of the dysfunction - has been referred to as illness. Moreover, as mentioned earlier, these were identified from a list of most frequently mentioned "common illnesses". It should, however, be noted that some respondents did question the selection of certain illnesses, especially the inclusion of everyday ailments. They felt that these illnesses were "not really illnesses" or "not serious enough". Yet when asked to elaborate, they suggested these illnesses were in fact illnesses but were "normal" illnesses, "familiar" illnesses, "part of daily life".

[6]Alternative labels can be offered for each of these category of illnesses. But they would not highlight the above distinctions amongst illnesses in order to make certain generalisations about different categories of illnesses. For instance, although diarrhoea would be a suitable example of a water-borne disease as much as jaundice and typhoid are, it still cannot be categorised as a self-limiting illness. A self-limiting illness has a fixed course, terminate within a short period and rarely have a relapse.

4.   serious illnesses (cancer, blood pressure and diabetes).

Illnesses thus selected are some of the most common representatives of each of these categories. Bearing in mind their every-day occurrence, a greater number of common illnesses were included. Questionnaire 2 provides corroborative evidence for this fact and thus justifies their inclusion. It was found that out of 35 common problem conditions included in the questionnaire, people suffered most often from illnesses like colds (33%), headaches (32%), constipation (26%) and 'gas' (20%). Although acidity (13%) is less common than stomach aches (15%), sleeplessness (17%) and weakness (18%), it was included as it is more specific in terms of its manifestation and definition.

Additional weight was given to differential system preferences (Questionnaires 1 and 3) so that both the *Ayurvedic* and the Allopathic systems are adequately represented. Table 4.6 displays the preferences for different medical systems across the 12 illnesses finally short-listed for the main study. As can be seen, the *Ayurvedic* system is preferred for 4 illnesses, Allopathy for 5 and both Allopathy and the *Ayurvedic* system for treating the remaining 3 illnesses. Preferences for ten out of twelve illnesses are similar to those obtained

Table 4.6. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS SELECTED FOR THE MAIN STUDY GIVING FIRST RANK TO VARIOUS MEDICAL SYSTEMS *(based on results of Questionnaire 1)*

| | MEDICAL SYSTEM | | |
ILLNESS	AYU	ALLO	HOMO
ACIDITY	_49_	25	25
'GAS'	_70_	9	21
HEADACHE	18	_72_	10
CONSTIPATION	_72_	7	21
COLDS	30	36	34
JAUNDICE	40	42	18
TYPHOID	2	_96_	2
PILES	41	38	21
RHEUMATISM	_47_	30	23
B.P.	7	_88_	5
DIABETES	36	_48_	16
CANCER	13	_86_	1

AYU = *AYURVEDIC* ALLO = ALLOPATHIC
HOMO = HOMOEOPATHIC

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from Questionnaire 3 (Table 4.2).   These 12 illnesses were used in a sorting-task wherein the respondents were asked to make groups of similar illnesses. Nearly 37% of the sample sorted the illnesses into above mentioned four groups (26%) or by including piles with common illnesses (11%). Another 42% provided very similar groupings but separated the illnesses into five instead of the four groups. They either isolated cancer from B.P. and diabetes (28%) or separated rheumatism and piles into two individual groups (14%). Their rationales seemed to broadly agree with those stated above[7] with an exception of the self-limiting group. Although few did state that both were short-term illnesses, most provided explanations which referred to their causes (e.g. "drinking or eating food which was not prepared at home", "water-borne") or prevalence (e.g. "though not as common as headache, most people will have first-hand experience of one or both illnesses during their life-times", "epidemics"). The remaining sample, preferred to group illnesses in the following manner. About 8% did so on the basis of the symptoms or causes associated with the illnesses. Typically they grouped acidity, constipation and piles along with cancer since the former three can lead to cancer. Similarly, they grouped cold and 'gas' with rheumatism. Their explanation for putting jaundice and typhoid together was based on their observation and as one of them put it "if you get one, you are going to get the other sooner or later". Headache was grouped with B.P. and diabetes since it is the most common symptom associated with either. The rest either separated the illnesses into two or three groups on the basis of seriousness or other

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[7]The majority of those who separated rheumatism and piles either stated that the former is more crippling and extensively disrupts the daily routine or that the latter can be surgically removed or is associated with constipation. Those who separated cancer from B.P. and diabetes suggested that the latter two were neither as serious nor as fatal.

criteria (e.g. illnesses of the stomach, infectious, painful).

4.3.5. ROLE PLAYED BY LAY NETWORK

Andersen and Newman's framework, as discussed in chapter 2, fails to consider the extensive role played by the lay group in an illness. The observation made during the pilot study supports the premise that the lay group plays a decisive role in identifying, selecting and evaluating treatment strategies in Bombay.

Basically, the members of the lay group (comprising kinship, friendship, co-residence or members of organisation) are repository of knowledge and participate actively during the recognition, definition and treatment phases. They assist in diagnosis, and interpretation of the illness. Moreover, the lay group also provided treatment based on Popular sources as well as monitored and evaluated formal care. Members of these networks (especially the immediate family) cling to the patient and provided total support (financial, moral, psychological, etc.). No major decisions were taken by the sick member without consulting the lay groups. In most situations, especially in life-threatening illnesses, the lay group immediately tracked down individuals who may have suffered from similar illnesses (or their family members) and regularly sought their advice. Even when these individuals did not belong to the lay group (e.g. a neighbour's friend's relative), they readily obliged and participated as members of the lay group. Their advice and experience were used as reference points and often carried as much weight as that of a professional doctor.

The lay group not only advised the patient but also determined whether a form of treatment was to be accepted, rejected or altered. This stands in direct contrast to the western notions of privacy and individual autonomy. It was interesting to note that the patients did not appear to be ashamed or embarrassed while relating their

problems in front of other patients. The relatives accompanying the patient were present during most consultations and examinations. Ill-health in general, was not considered to be a private matter. It was not unusual to find a male relative describing the menstrual symptoms of the patient (who may or may not be present) to the male doctor and taking instructions for treatment.

Often their role extended beyond that of mediators to that of patient surrogates. They routinely act as interpreters - translating the complaints of the patients as well as the instructions of the professional. As a result, treating patients by proxy was very widespread. Patients do not necessarily see the doctors - irrespective of the medical system - on follow-up visits. In routine illnesses (e.g. influenza) and epidemics (e.g. conjunctivitis) it was equally common for immediate relatives (including children) to represent the patients for the initial consultation[8]. Such involvement from the relatives was considered to be an expression of their concern.

They often demonstrated their concern and support for the sick member by taking him/her to as many sources of care as possible. Amongst certain categories of patients and their relatives, the number of diagnostic tests or consultations has becomes a status symbol as well as measure of their involvement. Within the Private Sector hospitals and nursing homes, prescriptions get handed over to patient's relatives who purchase medications and hand them to the staff. In the intensive care, this gets repeated every few hours either because a new specialist is consulted or the line of treatment is altered as a result of change in the condition of the patient.

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[8]This is not peculiar to India. It has been observed in other traditional societies also. In Tunisia, for example, father of a patient had consulted a scribe without patient being present (Creyghton, 1977).

During conversation they routinely cite the number of times these alterations were made to not only indicate the gravity of the illness but also their concern.

4.3.6. DEFINING STAGES OF UTILISATION BEHAVIOUR

The demarcation of stages of utilisation behaviour was obtained solely from the interviews carried out in Phase 2. Other models, like those of Suchman's and Igun's, have "divided the sequence of medical events into five stages representing major transition points involving new decisions about the future course of medical care" (Suchman, 1965 p.114). But, as discussed in chapter 2, their definitions do not separate stages of illness from medical and non-medical utilisation.

When asked, people generally narrated their utilisation behaviour and decisions in the following manner. They first recounted what they did immediately on perception of the symptoms and early efforts to seek treatment. In the instances where the illness still persisted or recurred, they described their efforts to improve the treatment strategy. These were in the form of decisions to try different combinations or switch sources altogether. If the illness advanced further, additional revision of the treatment took place. In short, the illness management stages resembled the nodes or choice points when patients decided to act by reviving a previously used form of treatment or supplementing with another form of treatment or replacing it with an entirely new source. If the illness did not pose new problems, the respondents continued with the existing form of treatment. It seemed that although the situation was periodically evaluated they did not necessarily decide to change the course of treatment until the need was perceived. The need for change was usually prompted by several considerations. It could be a result of relatively slow recovery, adverse reaction to drugs, the promise of a better cure and financial

constraints. Changes are often brought about as a result of intervention from the lay group. In short, this suggests that utilisation behaviour can be conveniently divided into stages based on decisions to change. That is to say, only the decisions taken at transition points to change the course of treatment should form the basis for dividing different stages of utilisation behaviour.

4.3.7. SELECTION OF THE DATA ELICITATION TECHNIQUE

Most people in India, not unlike their counterparts elsewhere, are not used to answering questions posed by a stranger. It is a novel situation for most people. Therefore, one of the aims of the pilot-study was to identify the most suitable way of eliciting information. As a result, different types of data gathering techniques have been used and their results compared. Besides giving a balanced perspective, this enabled cross-checking of information and selection of the most efficient technique for gathering data for the main study.

Although, people experienced difficulties in answering questions which were either too general or hypothetical, it was not at all unexpected to find that a highly structured and formal questioning style could neither capture the essence of the phenomenon nor elicit accurate information. But during the initial stages, it was very frustrating to find that informal situations and general questions could not either. Most people responded by suggesting that these questions should be addressed to a professional and not to a "lay person like them". According to them, professionals "know the correct answers" or "have the necessary information" and they as "lay" or "ignorant" people "are not supposed to know these answers" or are not "worthy" of answering questions. In other words, answering questions was the domain of the informed and educated. Despite repeated attempts to assure them that the researcher

was interested in "their views - however correct or incorrect they may be" very few volunteered information. In actual fact, this often surprised them. Typically they responded by asking "why would anyone be interested in my/our opinion?" or "what can I say which you would not know already?". Needless to say, such responses were especially higher amongst women and lower classes.

However, while observing people in the waiting areas of the hospitals or doctor's surgery and listening to their conversations, it become obvious that most people not only had a wealth of information to offer, but their capacity to analyze and model illnesses and their treatments was much greater than had been assumed. Tapping this required changes, not only in appearance and verbal behaviour, but also in the approach.

It was learned through trial and error that a semi-structured interview which placed greater emphasis on encouraging the respondents to express and share their knowledge was the most suitable method. The technique adopted, as described earlier, involved no attempts to ask questions regarding the illness under consideration during the initial stages. The conversation was initiated in a customary manner - similar to the way another patient or his/her relatives would have - and was subsequently steered towards relevant topics.

The strengths of a semi-structured data elicitation technique are evident in four areas. Firstly, it enables the interviewer to reassure the respondents that their information is valuable. Relatively speaking, this results in greater involvement and interest on the part of the participants. Secondly, more sensitive and relevant information could be collected because it would allow room for improvisation and enable the researcher to modify the interviewing technique to the needs of the

situation. Thirdly, it is possible to reiterate and feedback the information. Such cross-validation would help in bridging the communication gap and resulted in relatively more accurate information.

Fourthly, the semi-structured situation can overcome many of the short-comings of a written questionnaire while retaining its strengths. Apart from low literacy levels, it was realised that another limitation arose from the fact that many people viewed written questionnaires as a form of examination to "test their knowledge". In many, this aroused anxiety about "being wrong" or giving "incorrect" replies. Some viewed the written word as "final" or "irrevocable". It was very clear that most people were relatively more self-conscious while writing compared to talking. The same people who were apprehensive about responding to a questionnaire had no difficulties in answering similar questions verbally. These limitations were not necessarily present in a semi-structured interview. It would allow the respondent to be more relaxed and less aware of the fact that it was a question-answer session. Moreover, it would allow the respondents to revise their opinions if they so wished. This is expected to lead to better rapport on one hand and reduction in fear of this novel or anxiety arousing situation on the other.

4.4. CONCLUSION

To sum up, the main aim of the study is to explore the phenomenon of utilisation behaviour in greater detail than has been done before. A major finding of the pilot-study was that any investigation into the phenomenon of utilisation behaviour needs to take into consideration the medico-cultural milieu as well as the ample variations in the characteristics and course of illnesses. Bearing in mind these considerations, it has been decided to explore the process of utilisation behaviour in

all its multiple dimensions. The multi-dimensional framework designed for the final study has been geared to adequately account for illness as a separate variable in addition to all the other determinants of utilisation behaviour. Apart from the obvious differences between various illnesses, there are differences in the manifestation of the same illness. This, in turn, results in variations in utilisation behaviour. As a result, different sets of demands are placed on individuals suffering from different illnesses or at different times during the same illness. These diversities amongst types and manifestation of illnesses are reflected in the variations in utilisation behaviour. In addition, the pilot-study pointed at the significance of the lay group in shaping the utilisation behaviour. The stage-specific nature of utilisation, as evidenced from the results suggest that the focus of the future study should be on within rather than illness-dependent usage.

This concluding section will not be complete without a brief word on two invaluable insights gained as a result of this extensive pilot-study. Firstly, it proved to be an exercise in self-awareness. It offered numerous opportunities for introspection and for overcoming some personal limitations. Secondly, it enabled the researcher to develop a new perspective about her own culture, and learn new ways of dealing with the research task. This knowledge helped in not only improving the interviewing skills but also in the realisation that an average Indian was more rational, capable and knew a lot more than previously assumed.

CHAPTER 5
A MULTI-DIMENSIONAL FRAMEWORK OF UTILISATION BEHAVIOUR

5.1. INTRODUCTION

This chapter attempts to generate a substantive framework - on the basis of the preceding discussion, especially the results of the pilot-study - within which the phenomenon of utilisation behaviour in Bombay could be understood. The formulation of this multi-dimensional framework enables one to conceptualize the relationship among the various explanatory variables and their relative importance in determining utilisation behaviour.

Chapter 2 reviewed the existing literature on the nature and determinants of utilisation behaviour. To recapitulate, empirical studies based on the factorial models (e.g. Andersen and Newman's framework) have highlighted the effect of several variables on utilisation behaviour. However, the models deployed by most studies on pluralistic societies are based on a limited set of variables. Such exclusive focus on a few variables provides only a partial picture of the phenomenon of utilisation. On the other hand, the stage models (e.g. Suchman, Igun), despite their usefulness as explanatory tools, fall short of serving as adequate causal models, for they concentrate only on the unfolding of the illness and the processes of seeking treatment. Both these types of models contribute to the understanding of the processes of utilisation behaviour in a pluralistic setting. However, there is a conspicuous lack of an integrated approach to study "this wide, unorganised, but extremely fascinating field" (Kleinman 1980, p. x).

Presented here is an attempt to synthesise into a multi-dimensional framework, relevant aspects of the stage and factorial models. This has been attempted by

adopting elements of several theoretical perspectives and/or frameworks.

5.2. ASSUMPTIONS

The present framework is based on several assumptions relating to the nature of man, the nature of illness, the nature of utilisation and the realm of choice. Specifying the nature of these assumptions is of paramount importance in order to test the validity of a framework.

1. THE MODEL OF MAN: The first set of assumptions underlying the multi-dimensional framework concerns its model of man, and therefore, has the most far reaching implications. These pertain to man as a seeker of health and how his behaviour is shaped in the specific context of illness. Since ill-health is ubiquitous, it is possible to make generalisations about how an individual is likely to behave in an illness situation. The assumptions utilised derive from cognitive psychology and Rational Choice Theory as presented by Heath (1976).

   Individuals act rationally and pragmatically in their attempts to attain a satisfactory cure. As such, the course of action they decide upon is not merely an outcome of a random choice, nor is it simply based on chance. On the contrary, it is a self-conscious action based on the self-evaluation of a situation. Although the ill person normally evaluates the situation, sometimes it may be evaluated by others. For instance, an individual's decisions might be guided by those in the active lay group. Yet, it would still not be inappropriate to consider such decisions as self-initiated because of the strong psychosocial bonds prevalent among them. Such decisions may be construed as self-initiated for they reflect the individual's implicit consent. However,

there may be actions which are neither self-initiated nor initiated by this group. But these are outside the scope of the model.

The concept of rationality as used here is not intended to imply that individuals are objectively or scientifically rational. It is not correct to dismiss the actions of an individual simply because they are not objectively rational. An illness is a subjectively perceived situation and calls for subjective evaluations. The rationality of an individual's choice, given his/her subjective evaluation is of primary interest. So, an objective definition of rationality is both unnecessary and inapplicable here. This is strengthened by supporting arguments from Heath that "rationality has nothing to do with the goals which men pursue but only with the means they use to achieve them" (1976, p.79). It is therefore, reasonable to assume here that people can be rational and logical in evaluating various options in the light of their subjective needs, without being objectively rational.

Although their actions may be fully rational, individuals might not always be conscious of the rationale behind them. This could be due to gaps in their knowledge and deployment of heuristics or "rules of thumb" as a result of reliance on the lay network. For example, when they blindly follow traditions and habits. Even in such situations where there is little consciousness of the means-to-end relationship, there is a hidden rationality that offers valid justifications for all such actions (Heath, 1976). Following a tradition saves time and reduces the uncertainty arising out of constant evaluations. In fact, one of the purposes of rational action is to minimise the cost and unnecessary risks. Therefore, following of traditions and habits need

not be discarded as irrational. The behaviour of the respondents during the pilot-study seemed to be in line with Heath's argument. Despite the dilemmas posed by the prevalence of innumerable treatment options together with the inadequacy of information confronting the sample, their overall utilisation behaviour seems to exhibit internal consistency of logic. Their behaviour is guided by pragmatic considerations (like immediate, short-term or permanent cure, cost effectiveness) which are geared to the need to obtain a satisfactory level of health. In a subjectively defined situation as illness, such pragmatism is equivalent to rationality.

Individuals do not assess the illness situation, alternative sources of care and the final outcome of treatment procedures either immediately or continuously. Usually, such evaluations are undertaken only when a subjective need is perceived, until then the current course of treatment is continued. Although the framework does not try to ascertain the probabilities assigned by individuals to the alternative course of action, it assumes that they evaluate the alternatives and their outcomes and choose the most desirable course of action[1]. The outcomes reflect the evaluation and decision process of individuals.

Lastly, the framework assumes that by and large, individuals do not have a single set of rules guiding their treatment strategies. These numerous rules may not appear to be entirely consistent with each other. The

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[1]Due to lack of sufficient information, individuals may not be able to assess the strengths and weaknesses of all the options and their probable outcomes simultaneously. The decision-maker in cognitive psychology, unlike in the classical economic theory, makes the decisions which are procedurally reasonable in the light of the available knowledge and means of computation. The decision made by his counterpart in economics is objectively best in terms of the given utility function.

application of these rules is selective and based on their potential to maximise results at a given point of time.

2. <u>THE CONCEPT ILLNESS:</u> The second set of assumptions concerns the concept of illness[2]. An illness is perceived to be a problem situation and the nature and/or extent of the problem is both socially and personally determined. Until the individual perceives the need to seek care, the objective manifestation of illness is not sufficient for utilisation of health-care sources to take place. Illness is conceptualised as a subjectively defined event with biochemical, physiological and/or psychosocial disorders[3].

Illness is also a complex situation with varying degrees of uncertainty. The discrepancy between the actual state of ill-health and the intended state of health results in the process of evaluation and re-evaluation, thereby influencing the action. These actions of the individual are directed to the goal of preventing, controlling, reducing and eliminating ill-health. To sum up, it is a progressive event involving a series of curative decisions aimed at reducing or eliminating ill-health.

3. <u>THE REALM OF CHOICE:</u> In this framework, it is assumed that people in

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[2]To recapitulate, the term illness as used here includes ailments and conditions.

[3]An illness has biological and social significance. It could be defined differently by a layman who has suffered from the given illness than by someone who has not. Moreover, a layman's definition will be different from that of a professional. This suggests that there are *objective* (professionally or clinically defined) and *subjective* (non-professionally defined) definitions of an illness. Although these definitions can overlap, they are not necessarily identical. For example, a symptomless condition like anaemia is considered to be an illness by medical standards but not necessarily by the individual who may think he feels perfectly well. Similarly, a culturally defined illness (e.g. loss of *dhatu* in India) may not be medically considered to be an illness. Previous studies on utilisation behaviour have used both subjective and objective definitions of illness.

these societies make different types of curative choices. The range of choice varies from the one extreme of whether or not to seek treatment to choices amongst and within various alternative sources of treatment. Utilisation behaviour of individuals can vary as a result of differences in the extent of choice. The types of utilisation behaviour can be viewed along a continuum based on the degree of choice involved. At the extreme left (i.e no multiple usage) will be the use of a single source - the usual source of treatment, whereas at the extreme right will be the random use of all available alternatives. Between these extremes will fall a variety of patterns. That is to say, the common goal of a satisfactory cure is reached through numerous paths open before the individuals in the form of a variety of sources in different combinations. The framework assumes not only a general awareness about these sources but also their wide acceptance and availability.

4.   MULTIPLICITY OF DETERMINING VARIABLES: One of the most central assumptions of the present framework relates to the interplay of a multiplicity of determining variables. In an illness situation, one is dealing with complex and at times inexplicable interactions between both the individually based and the socio-cultural variables - neither of which are static. It is, therefore, reasonable to assume - once the abnormality in health is perceived - health seeking behaviour in general, and utilisation behaviour in particular, to be an outcome of an interaction between these variables. The differential influence of these variables results in different patterns of utilisation behaviour. It is assumed for simplicity that they play an equal role in determining utilisation behaviour and thus an equal weight is assigned to each of these variables in

this additive framework.

5.3. DESCRIPTION OF THE FRAMEWORK

The framework presented in Figure 5.1, is elaborated below. This is essentially a behavioral model. The explanatory variables in the framework determine, directly and indirectly, the behavioral responses of users who resort to one
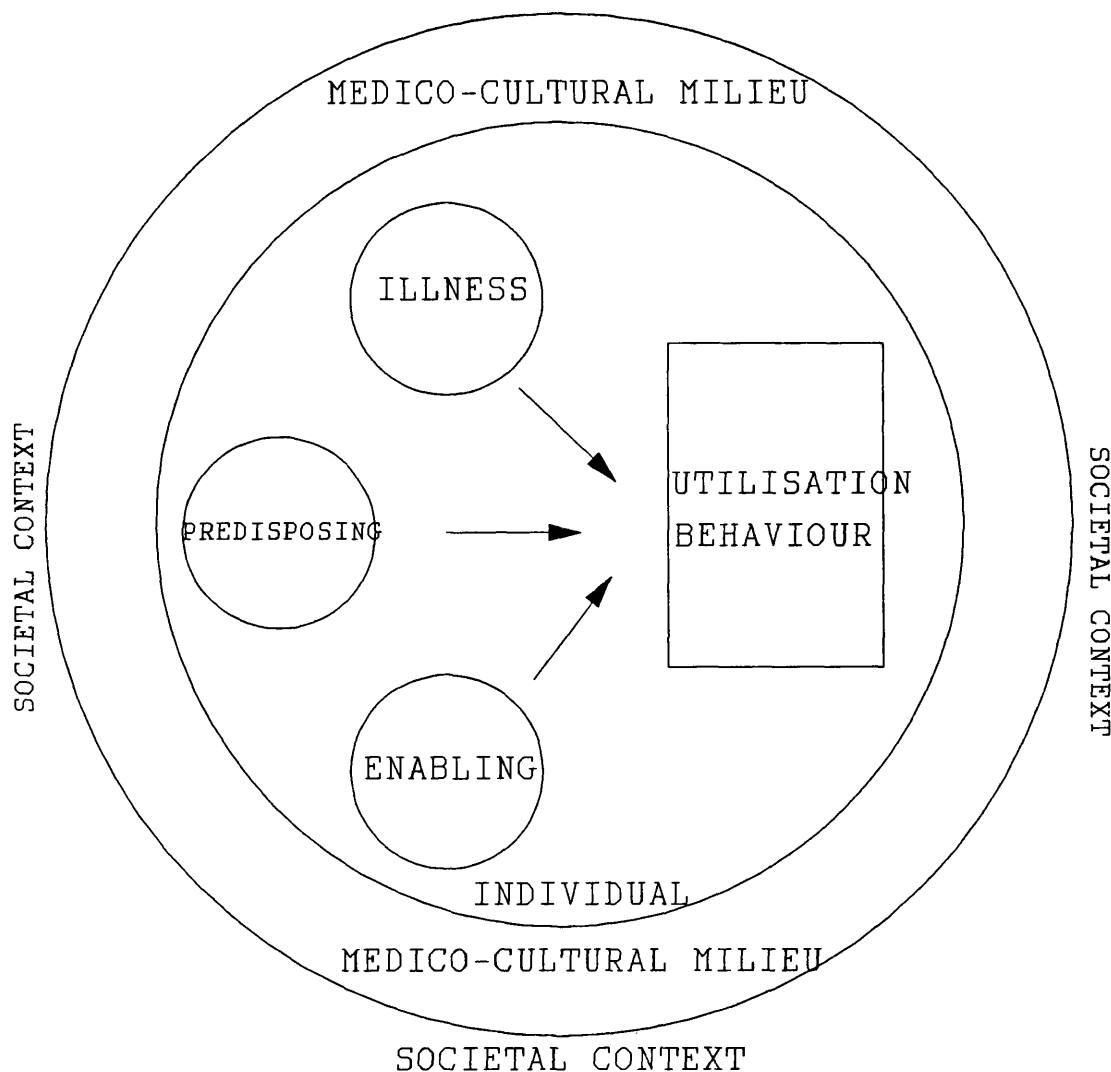
Figure 5.1. A MULTI-DIMENSIONAL FRAMEWORK OF UTILISATION BEHAVIOUR: A GRAPHIC REPRESENTATION

or more medical sources, once the symptoms of an illness are perceived. The perennially complex phenomenon of utilisation is determined not only by factors

directly related to health but also by those latent cultural factors.

Prior to defining the determinants of utilisation behaviour it is important to consider the characteristics of the outcome variable, i.e. utilisation behaviour.

5.3.1. UTILISATION BEHAVIOUR

As discussed in chapter 1, this study focuses exclusively on the curative aspect of health behaviour. The process of seeking care is referred to as **utilisation behaviour** and is defined as any self-initiated and self-reported treatment strategy in an illness. The dynamic nature of illness means that utilisation behaviour can not be a static phenomenon. From this angle, the term utilisation behaviour refers to the paths people take as they pick and choose amongst sources of care in the pursuit of curing their ailment. The pattern of resort may either be from one constituent to another within a medical system, or from one system to another. Thus, one or more sources are used either simultaneously or in sequence.

Basically there are two components of utilisation behaviour, namely: pattern and type. The process of utilisation which charts the chronology of usage of different sources along a time continuum, helps to distinguish among different **patterns** of seeking care on the basis of the sequence in which systems were used (**Allopathic followed by non-Allopathic** or vice versa etc.). **Type** of utilisation, obtained from patterns, refers to the number of formal medical systems used (**Exclusive or Multiple**). Both these components have been elaborated in chapter 6.

5.3.2. DETERMINANTS OF UTILISATION BEHAVIOUR

As postulated in this framework, the utilisation behaviour of individuals is shaped by two sets of determinants, namely

1.   the individually based **predisposing, enabling and illness related variables,**
2.   the **medico-cultural milieu** which refers to the society's health-care delivery

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structure which consists of the institutional infra-structure, and the practitioners. It is embedded in the larger **socio-cultural context** within which the individually based variables as well as the health-care delivery structure operate and interact.

Beyond their specific functions, each of these determinants perform a joint role in any illness situation. By continuous mutual interaction, both society and its members shape the health, illness and treatment related attitudes, actions, expectations and choices. At a fundamental level, decisions relating to utilisation are made by the individuals which then collectively influence the overall social strategy. But, at the same time, individuals receive substantial inputs from the society. It is the society which shapes the health related perceptions and practices of its members through the structure of medical systems and the distribution of health-care services. This societal strategy is not planned or executed entirely by a select group of professionals. Rather, the members of a society collectively determine these strategies through their perceptions and patronage of the various health-care sources.

5.3.2.1. MEDICO-CULTURAL MILIEU AND SOCIETAL CONTEXT

The socio-cultural components pervade all aspects of health behaviour, from the definition of health and illness to the way in which sick-roles are modelled, from the structuring of medical systems and the delivery of health-care sources to the manner of their utilisation. The medico-cultural milieu - embedded in the larger socio-cultural context - generates both a rich and complex organisation of medical systems and simultaneously shapes the individual's knowledge and predisposition towards health related issues.

In addition to the medical systems, the make up of the medico-cultural milieu contains the health-care delivery structure. The health-care delivery structure amply

reflects a society's preferences and prejudices in the manner in which it makes various medical sources available to its members. Consequently, there emerge common perceptions concerning the structuring of health needs, expectations of treatment and the evaluation of the process of healing. The health-care delivery, as discussed in chapter 3, comprises numerous formal (governmental and private) and non-formal medical sources. The delivery of services from these sources is channelled both through organisational and individual networks. In a pluralistic setting like India, as seen earlier, the availability of these sources does not necessarily depend on governmental patronage alone.

Unlike the variables which are attributes of the individual, the elements of socio-cultural components are uniform for all the individuals in the sample. Their global nature defines the context within which decision-making and treatment selection processes occur. It hardly requires any mentioning that it is the socio-cultural context of a society which provides the background for the individual's utilisation behaviour. Thus, the utilisation behaviour grows out of the societal context (which includes the medico-cultural milieu) and responds to the changes within it.

5.3.2.2. INDIVIDUALLY BASED DETERMINANTS

Apart from the direct and indirect influence of the societal determinants, various characteristics of the individual also affect the utilisation behaviour. As mentioned earlier, the individual determinants comprise the **predisposing**, the **enabling**, and the **illness** components.

I. PREDISPOSING COMPONENT

Essentially, these variables increase or decrease the propensity of the

individuals either to use or not to use a source of treatment. These variables exist prior to the onset of the specific illness and are not directly responsible for actual use. For example, even though age is known to be associated with illness, on its own it is never a reason for seeking care.

The group of predisposing variables in the framework include the *demographic*, the *social structural*, the *belief* and the *social* variables. The inclusion of the demographic (e.g. age, gender), social structural (e.g. education, occupation) and belief variables (e.g. attitudes towards sources of treatment, beliefs in their efficacy) brings about a close resemblance between the multi-dimensional framework and the predisposing factors in Anderson and Newman's framework. Whereas the demographic variables reflect the different physiological states, the social structural ones locate individual's position in the society. The belief variables determine the psychological predisposition to use certain sources.

However, the scope of the predisposing variables in the present framework is wider than those of Anderson's framework for they take into account the social network determinants of utilisation behaviour. They refer to the influence exercised by the non-professional network (relatives, neighbours, friends) during the various stages of an illness (e.g. assignment of sick-role, diagnosis, treatment). This variable, as demonstrated in chapter 2 affects utilisation behaviour. It is therefore, appropriate to incorporate it into the present framework.

II.   ENABLING COMPONENT

Once the need to attend to the symptoms and/or illness is perceived, utilisation also tends to hinge on other mediating variables. That is to say, equally predisposed individuals may not exhibit similar utilisation behaviour because of differences in the

means which are available to them. These are termed enabling variables since they turn needs into demands[4].

The enabling variables, as in Andersen and Newman's framework, comprise availability of *family and individual resources* and the *community resources*. Whereas the former refers to the individual's ability to afford costs (e.g. income, access to regular care), the latter refers to the economic supply models of the health services and resources as available in the community in which the individual lives (e.g. distribution, quality, geographical location of the health services).

However, it includes an additional group of enabling variables than that of Andersen and Newman's framework. The *treatment* variables - distinctive of the present framework - predominantly deal with stage-specific variables which influence utilisation behaviour during a particular stage. These range from the satisfaction with the treatment to financial considerations. As discussed in chapter 2, these variables are known to influence the overall pattern by determining each stage of utilisation.

III. ILLNESS COMPONENT

Given the predisposing and enabling conditions, the unfolding of any form of utilisation behaviour is necessitated by the occurrence and perception of an illness. In a health-care setting where utilisation of sources is voluntary, it is the perception of illness which triggers the action. For this reason, it would not be incorrect to say that the illness variable is by far the most vital in all forms of utilisation.

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[4]In any one instance of utilisation behaviour, a multiplicity of factors are present. Therefore, there is an overlap between the predisposing and the enabling variables. Their interdependent nature makes it difficult to rigidly categorise them under different heads. However, depending on the overt or covert nature of these influences, one could plausibly classify them as enabling and predisposing variables. Those variables which act as catalysts in deciding on a particular form of utilisation are termed as enabling whereas those exercising only an indirect influence on such decisions are termed as predisposing ones.

Variations among and within diseases have both been included here. Different *types of illnesses* and differences in *manifestation and perception of an illness* have both been considered to be independent variables. As discussed earlier, it is important to recognise that all illnesses are not alike in their characteristics and course. In addition to the variation in the course of an illness there is an ample variety of illnesses, suggesting that any definition of utilisation behaviour needs to carefully consider the nature of illnesses. In reality each type of illness constitutes a separate variable. Illnesses can be classified under different types on several bases. Illnesses with different characteristics will affect utilisation behaviour differently as the nature of decision making in each case will vary. For example, the gravity of the situation in a serious illness, may call for careful and decisive actions, whereas a mild and chronic illness may permit actions of an exploratory nature.

As discussed in chapter 2, one of the reasons why behaviour of people suffering from the same type of illness differs is because illnesses vary in terms of their manifestations and how individuals perceive them. The manifestation of illness variables refer to various cognitive and perceptual aspects of an illness which affect utilisation behaviour during a stage. Illnesses may be passive or severe, or passive at times and severe at others in the same individual. They may remain subdued for years and then suddenly worsen or alternate between these states regularly. In short, illnesses may be brought under control, remain stable or worsen.

5.4. SELECTION OF VARIABLES: THE RATIONALE

The basic framework with its components and its sub-components is displayed in Figure 5.2. The following will provide the rationale behind selection of variables to represent each of the components. Besides their correspondence to the present

PREDISPOSING	ENABLING	ILLNESS
DEMOGRAPHIC gender sex	RESOURCES family income prior access	TYPES common self-limiting non-serious chronic serious chronic cancer

SOCIAL STRUCTURAL education medium of instruction occupation	TREATMENT scepticism satisfaction characteristics of provider match between diagnosis

BELIEF efficacy of system multiple use	MANIFESTATION causal attribution accuracy of diagnosis manifestation of symptoms

SOCIAL
prior source of advice
stage-specific source

PATTERNS OF UTILISATION BEHAVIOUR

Figure 5.2. COMPONENTS AND SUB-COMPONENTS OF THE MULTI-DIMENSIONAL FRAMEWORK

multi-dimensional framework, the variables have been chosen on the basis of their potential for operationalisation and results of the previous research.

5.4.1. MEDICO-CULTURAL MILIEU AND SOCIETAL CONTEXT

As discussed in chapter 1, the Indian culture has a tenacious hold on health-care delivery structure and its components, i.e. the medico-cultural milieu. Since a culture and its influence cannot be manipulated or standardised, it can only be understood through its manifestations like the individual behaviour and the conceptual paradigm of the medical system which has evolved from the culture. Therefore, the

operational framework only concentrates on defining the individual determinants. The results based on the individual determinants, existence of medical pluralism and the nature of *Ayurvedic* system would be interpreted in the light of the socio-cultural context. Since the theory of classical *Ayurvedic* system is comprehensive enough to contain other systems, it has been selected as representative of other non-Allopathic indigenous systems. As Nichter (1980) has pointed out, "the ayurvedic pundits have encompassed indigenous health notions and practices within their own highly elaborate and accommodative conceptual universe" (p.226).

5.4.2. INDIVIDUALLY BASED DETERMINANTS

5.4.2.1. PREDISPOSING COMPONENT

DEMOGRAPHIC VARIABLES: These are probably the most commonly used explanatory variables and refer to individual's physiological (age, gender) and life cycle (marital status) states. Only two predisposing demographic variables (age and gender) are included in the study. Since marriage is almost obligatory in India, the inclusion of marital status is not likely to be of consequence.

SOCIAL STRUCTURAL VARIABLES: Essentially these are life-style indicators. The social structural variables included in the study are: occupation, education, and medium of instruction at school. In addition to the level of education and occupation, medium of instruction at school could be an important indicator in the context of the study. Although the study focuses on Gujarati-speaking population of Bombay, it does not follow that the medium of instruction at school is always Gujarati. It is generally considered prestigious and advantageous to send children to English medium schools therefore it is not unusual to find Gujarati children going to English medium schools.

Social structural indicators like family size, ethnicity, membership of a caste, religion have either been excluded or controlled. For the purposes of the study, a homogeneous group from a specific area of the city has been selected. As a result, there are less variations in terms of religious and caste groupings. The importance of these variables remains latent and therefore is rendered irrelevant in a cosmopolitan city like Bombay. Moreover, as discussed in chapter 2, some studies have failed to establish a relationship between usage and caste and religion. Most studies which have established the relationship have been conducted in rural areas. Family size was also excluded for several reasons. The Indian family is very complex in its structure and function and its role does not necessarily diminish with a decrease in its size. Not only that, in certain Gujarati families it is customary for a woman's family to look after her and provide for her treatment. Also it can be difficult to measure as it is normal for relatives or neighbours to live as family members. People tend to count all the members living in the house as family without necessarily distinguishing the extended family members, visitors, guests and temporary residents. Moreover, some studies (e.g. Rao and Richard, 1984) have failed to find family size to be a significant variable.

BELIEF VARIABLES: They refer to attitudinal aspects which influence utilisation behaviour. In this study, two such indicators, namely attitudes towards shopping and belief in efficacy of treatment are used. Considering the nature of the study, orientations towards shopping or seeking various alternative and multiple sources of treatment seem appropriate as indicators of psychological predisposition. In addition, individual's most preferred system prior to the onset of the given illness was used as an indicator of the belief in efficacy of the system.

A limited number of belief variables have been included in the study for two reasons. Firstly, the link between attitudes and behaviour is not expected to be strong. Moreover, it was observed during the pilot-study that belief variables played only a marginal role in determining behaviour. People were at times using systems other than the one they had stated a preference for. Some of the commonly cited reasons were connected to lay group pressures, economic considerations and convenience. Perhaps this is because the source of care in a curative health-care situation is chosen out of necessity, rather than out of desire.

Secondly, in this study information on attitude and behaviour is collected simultaneously. It is possible that both attitudes and behaviour interact with each other and alter in response to each other. As McKinlay put it

> "In studies concerned with health and illness beliefs and attitudes alone, such beliefs and attitudes may not have counterpart in health or illness behaviour....in studies where verbal statements or retrospective behaviour are collected at the same time as belief and attitudinal data, it is just as likely that behaviour causes beliefs as belief causes behaviour" (McKinlay, 1972 p.128).

It is possible that data elicitation not only reveals the preferences and beliefs but also constructs them. As a result, as far as possible, greater emphasis was placed on eliciting information on actual utilisation. Moreover, preferences and beliefs held prior to the onset of the illness under consideration were preferred over the current ones.

SOCIAL NETWORK VARIABLE: In this study, prior reliance on professional and non-professional sources of care has been taken as an indicator. Like the belief variable, data elicitation process may also influence the role played by social network. As a result, information on reliance prior to the onset of the illness under consideration was gathered. In addition, sources of advice which were instrumental

in revision of the old strategy and selection of the new one have been used as indicators of the stage-specific role of the social network variable.

5.4.2.2. ENABLING COMPONENT

<u>FAMILY AND INDIVIDUAL RESOURCES</u>: Individuals with varying resources are likely to exhibit differences in utilisation. Three indicators of family and individual resource variables (income, prior access to regular Allopathic and non-Allopathic source of care) are used to measure the ability of the family and/or individual to obtain the health services it perceives as necessary. Due to medical pluralism, access to both Allopathic and non-Allopathic sources needs to be included. Due to the absence of a national insurance scheme and comparatively recent introduction of medical insurance, the health insurance variable has been dropped.

<u>COMMUNITY RESOURCES</u>: By selecting a specific area of the city, the variability in community resources has been partially controlled in the study. As enumerated in chapter 3, various types of sources both within and between systems are easily available in south Bombay. Moreover, the emphasis here is on the individual determinants of utilisation behaviour. Therefore, this group of variables has been excluded in the present framework.

<u>TREATMENT VARIABLES</u>: They range from the expectations from the new treatment strategy to the client's satisfaction with the treatment. These variables have more qualitative dimensions than most. Since most people are expected to seek professional help at least once, attention is focused on four treatment-related indicators of the first stage only (scepticism of care, similarity between the respondent's and professional's diagnoses, accuracy of the diagnosis made by professional, level of satisfaction). Since utilisation behaviour is a product of factors

which existed prior to the onset of illness as those which are current to each strategy, certain stage-specific treatment related aspects have also been included. These are expectations from each treatment strategy (e.g. diagnosis or relief); reasons for stopping each treatment strategy (e.g. dissatisfaction, financial consideration).

5.4.2.3. ILLNESS COMPONENT

TYPE OF ILLNESS: The types of illnesses included in the study as discussed in chapter 4, are carefully scrutinised. Utilisation behaviour in twelve illnesses ranging from common illnesses like headache, colds, constipation, 'gas', acidity to less common illnesses like jaundice, typhoid, piles, rheumatism, blood pressure, diabetes, and cancer has been studied.

The objective of the study will be only partially fulfilled if the utilisation behaviour for each of these is identified without observing certain general characteristics of different types of illnesses. It is important to identify underlying commonalities based on their characteristics. In this study, the perception of attributes such as severity, chronicity, perceived vulnerability, possibilities of prevention, recovery are used to derive groupings of illnesses.

MANIFESTATION OF AN ILLNESS: Since different aspects and processes are relevant at different stages of utilisation, information on these aspects has been gathered selectively. The important processes influencing the first stage of utilisation are the onset of illness (e.g. sudden, gradual), certainty of diagnosis (accurate diagnosis or not), attribution of cause (e.g. humeral imbalance, supernatural, germs), manifestation of symptoms (e.g. disruptive, serious, painful), level of anxiety (e.g. high-low). Those important during the first and the subsequent stages of utilisation are the illness characteristics (e.g. persistence of symptoms, severity).

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Each of these processes and aspects have been examined to a varying degree in the study.

5.5. HYPOTHESES AND GENERALISATIONS

Having developed a framework which attempts to describe why people use various sources of care, the following section attempts to describe specific hypothesis and generalisations arising from it. Needless to say, the validity of any framework lies in its explanatory powers. The latter half of this thesis attempts to test these hypotheses - using a small-scale study.

The study is premised on two main objectives:

1.	to establish utilisation behaviour as a decision-making process resulting in patterns of usage and explore the underlying rationale;

2.	to identify the nature of the relationship between the explanatory variables and utilisation behaviour and distinguish between principal and secondary variables so that a more precise framework for studying utilisation behaviour can be built.

5.5.1. OBJECTIVE ONE

The first objective of the study is to explore how individuals or groups make decisions. It is hypothesised that

1.	The individuals do not necessarily use different sources of care at once but adopt a sequential strategy (i.e. first and subsequent strategies). The multi-dimensional framework assumes that utilisation behaviour is a continuous process characterised by a series of stages wherein the behaviour in the earlier stages influences that of the subsequent ones. During these stages, decisions regarding the definition of illness and treatment are undertaken. This process

begins with the perception of symptoms and the identification of illness, followed by decisions regarding its treatment. Any utilisation behaviour entails at the very least this single stage. But some may go through two or more curative and evaluative stages. These stages are ordered temporally and separated by decision points as the results of the pilot-study have suggested.

2.   The individuals revise their treatment strategies by selectively adding, replacing and discontinuing certain sources. They continue to make these adaptations to treatment strategies until they totally recover, do not feel it necessary to revise the current combination of sources or die.

3.   These alterations are made in response to the changes in illness, expectations from new strategy, feed-back, lay advice and similar consideration.

4.   These revisions in treatment strategy produce different patterns of utilisation. One of the aim of the study is to conceptualise the process of utilisation behaviour in terms of these patterns and attempt to understand how they are formed.

5.5.2. OBJECTIVE TWO

The second objective follows from the first and deals with **what** factors influence their treatment-related decisions. This would involve two stages. Whereas the first necessitates accounting for each variable specifically in terms of its relationship with utilisation behaviour, the second involves selecting the important ones in building a comprehensive model.

INDIVIDUAL DETERMINANTS: For the first stage of the objective, a series of hypotheses and generalisations need to be formulated and tested in order to explain whether differences in utilisation arise from differences among individuals or

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differences of illnesses. It has been hypothesised[5] that the pattern and type of utilisation and degree of shopping depend on the

1. the predisposing component, i.e. the variables which preceed the onset of illness

    i)   The **demographic** variables like age and gender are associated with different physiological needs as well as the differences in experience and perception of illness and consequently different patterns of medical care.

    ii) The **social structural variables** reflect the life-styles of the individuals, i.e. their social and physical environment and related patterns. Differences in occupation, education and medium of instruction are expected to influence the patterns of utilisation behaviour.

    iii) People who have strong **belief** in the efficacy of certain medical system are more likely to use that source of care both exclusively and in combination with other medical systems. Those who have a positive attitude towards shopping are more likely to combine different systems resulting in multiple patterns of usage.

    iv) The patterns of resort are expected to be different for those who generally rely on their **social network** for advice. Differences in perspectives of various members of the network is expected to result in multiple patterns of resort.

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[5]It is not possible to hypothesize about the exact nature and direction of the relationship amongst all the variables for two reasons. Firstly, as seen in chapter 2, the previous research is either scanty or contradictory. Secondly, due to the *de novo* and exploratory nature of the study, it is not possible to develop specific hypothesis.

2.   the enabling component, i.e. variables which facilitate the health-seeking action:

v)   some individuals have greater **family and individual resources** and as a result exhibit different patterns of utilisation.

vi) differences in scepticism of care, satisfaction, nature of patient-practitioner relationship may result in different evaluation of the current **treatment**, which in turn, is likely to affect the subsequent usage and thereby resulting in different patterns of usage.

3.   the illness component, i.e. the stimulus or the most immediate reasons for using the services.

vii) Despite the similarities in predisposing and enabling components, individuals suffering from the same illness are not necessarily alike. This is because of the differences in **manifestation and perception** of their illnesses.   The differences in extent of disability, initial attribution of cause, symptomatology, nature and severity of illness are likely to influence the pattern of utilisation.

viii) The patterns of utilisation are expected to be different as a result of differences in the **type of illness**.

COLLECTIVE DETERMINANTS: For the second stage, simultaneous comparisons of the variables need to be made.   Although many explanatory variables can be shown to be of some value in understanding utilisation behaviour, ultimately, only a small number of them may be necessary to provide a basic understanding of the phenomenon.   However, due to the lack of empirical data it is difficult to choose one

or more of these as principal variables at the expense of others. Moreover, as discussed earlier, since most studies concentrate on few variables, it is not possible to make such a choice. In order to do this, it is necessary to carry out simultaneous comparison of various variables. The present framework offers an opportunity to do this.

On the whole, it is postulated that each group of variables will determine the pattern and type of utilisation behaviour to a varying degree. In the pluralistic setting of Bombay, the use of sources is largely discretionary and therefore influenced by an array of variables. However, it is an assumption of the study that the illness component, and to some extent the enabling variables, would be the major determinants of patterns and types of utilisation behaviour, and therefore, would have greater explanatory value than the predisposing variables.

5.6. SUMMARY

This chapter advances a framework which has evolved from theoretical frameworks and empirical researches reviewed in chapter 2 and the results of the pilot-study. The framework attempts to conceptualize utilisation behaviour in the light of the multiplicity of factors which include the medico-cultural and individual (predisposing, enabling and illness) variables.

CHAPTER 6
OPERATIONAL DEFINITIONS AND DATA COLLECTION

6.1. INTRODUCTION

In order to test the validity of a model, it has to be made operational. This chapter operationalises the framework of utilisation behaviour discussed in chapter 5, by defining the conditions under which it is applied as well as the variables specified in it. The subsequent section elaborates on the data collection technique and assesses the methodological shortcomings of the study.

6.2. CONDITIONS

A model is essentially a set of two or more related propositions. But these propositions are only true under certain conditions. These conditions comprise the object of observation (unit of analysis), the place (pluralistic setting of Bombay) and the time frame in which the phenomenon occurs, as well as how abstract concepts used in the model can be verified (operational definitions of the concepts). The following discusses each of these stipulations in some detail.

While some of the conditions (unit of analysis, type and purpose) are derived from characteristics of utilisation specified in Andersen and Newman's framework, others (e.g. time frame, definition of illness) are distinctive to this study and have been added to overcome the limitations of previous studies.

6.2.1. UNIT OF ANALYSIS

In the present study, the unit of analysis is the individual and his/her self-reported account of treatment seeking processes. There are several reasons why the unit of analysis needs to be based on the individual rather

than the family. Although popular and useful[1], the family as a unit of utilisation behaviour is not appropriate in the present context. It is not sensitive to the differences in personal preferences and patterns of usage within the members of a family. As discussed in chapter 2, in India the type and volume of utilisation behaviour for men and women within the same family may be different.

Similarly, proxy responding has been ruled out in favour of self-reporting in the study for various reasons. Despite certain advantages, there is a danger of obtaining inaccurate and incomplete responses in proxy responding. There is also a greater likelihood that it may echo only the reporter's perception of the state of the sick, his/her need to adhere to socially prescribed norms etc.

6.2.2. PURPOSE OF UTILISATION

According to Andersen and Newman's framework, purpose of utilisation behaviour (e.g. preventive, curative, tertiary care) should be clearly identified. Here, the focus is on curative and tertiary care. All preventive measures and laboratory examinations have been excluded in the study to restrict the focus to curative activities alone.

6.2.3. SOURCE OF UTILISATION

The third dimension of utilisation in Andersen and Newman's framework refers to type (e.g. physician, hospital care). In this study, the term source is preferred over type to avoid confusion over types of utilisation (i.e. multiple and exclusive).

The definition of the source of utilisation in this study, has not been restricted

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[1]The family is the most immediate and socially powerful unit. As a result, it directly and indirectly affects the health status of the individual members and influences their decisions.

to professional sources alone. Instead, the term source of utilisation as employed here includes non-formal sources like Popular (home remedies, over-the-counter preparations, self-medication based on previously prescribed medicine etc.) and Sacred (magic-religious healers, vows/prayers to Gods etc.) sources. To recapitulate the discussion in chapter 3: in Bombay there are Public and Private Sector sources in each of the three formal systems, namely, Allopathic, *Ayurvedic*, and Homoeopathic. Then there is a whole range of magico-religious sources labelled here as the 'Sacred' source. In addition, a variety of fringe sources (like magnet and urine therapies), non-formal lay sources (like home remedies) are available to people, labelled here as Popular sources.

But such an extended definition may raise concomitant problems, especially with reference to the non-formal sources. For example, doubts may arise as to whether these remedies and methods of healing constitute separate sources of care or not. The non-professional sector plays a significant role in health seeking behaviour as a large number of illnesses and a substantial ailing population is treated outside the formal sector. As Dean (1981) put it, "Self-care is the basic level of health care in all societies" (p.673). The use of non-professional sources remains almost constant throughout the course of an illness. They are used, almost exclusively prior to entry into the formal sector, then simultaneously with the latter and also after leaving the formal sector. But most utilisation studies "generally omit" self-medication as a source of care (Kasl and Cobb, 1966 pp.258-9). Similarly, as mentioned in chapter 3, the medical role of Sacred sources should not be ignored. It is important that they should be recognised as separate but important sources in the health services literature.

That is to say, the non-formal sector is too large and pervasive not to be treated as a distinctive sector. It is, therefore, crucial on the one hand, to identify and differentiate clearly the use of non-professional from professional or formal sources and on the other, between various types of non-formal sources.

The study, therefore, includes five major sources of care and a total of 19 affiliates, grouped[2] in the following manner:

Allopathy:	Allopathic family doctor (F.D.) Other Allopathic doctors besides F.D. Consultant/specialist/surgeon Nursing Home Hospital (in-patient) Hospital (out-patient) Allopathic self medication with an Allopathic professional's approval
Ayurved:	*Vaid* Hospital *Ayurvedic* self medication with an *Ayurvedic* professional's approval
Homoeopathy:	Doctor
Sacred:	*Bhuva, mantravadi* *Baba/bawa*, spiritual healers Astrologer Prayers and *badha* (vows)

Popular:	home remedies
	fringe treatments- magnet, urine therapies
	exercise, yoga
	change of climate as a therapy
	Allopathic self medications with no
	    professional approval
	Ayurvedic self medications with no
	    professional approval

The use of two or more of the medical systems by the same professional (i.e.

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[2]Undoubtedly, there are major differences between components of each of these groups but they all function within the same medical system or paradigm. For example, although different, both *Baba* and astrologer operate within the common supernatural framework (see Appendix 7 for description).

Allopathic and *Ayurvedic* or Homoeopathic) or simultaneous use of two formal systems has been referred to as Combinations.

In addition to the variety in the sources of care, there are different ways of gaining access to them. For instance, these sources can be reached in a casual encounter at a party, an appointment in a surgery/office, a consultation over the telephone. Usually, studies on utilisation behaviour do not treat deliberations outside the formal settings of a clinic as constituting utilisation. But this is incorrect, for these deliberations too are in a sense curative activities and as such cannot be excluded from consideration. In this study, use of any source of care, irrespective of the point or place of contact, has been treated as constituting utilisation. It is equally important to define use from another angle. What represents usage for the purpose of this study is only the self-reported use of a given source of treatment. The labelling of the source of care (e.g. Allopathic physician, *Ayurvedic* hospital) was therefore determined by the respondents themselves.

6.2.4. TIME FRAME

The need for a fixed and uniform time frame for studying utilisation behaviour is crucial but this is overlooked by most studies. The period under investigation in the present study has been limited to a maximum of five years (1981-1986) and minimum of one year[3].

It is meaningless to study illness behaviour within an unlimited time span. At

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[3]However, exceptions were made in the cases of jaundice, typhoid and cancer which may have had their onset in the past year. Whereas the former two are self-limiting illnesses (i.e. the duration between onset and cessation is very short), the latter is a rapidly degenerative illness and often results in death within a very short time. In most instances, cancer is identified when the disease is in its second or third stages. As a result, unless successfully treated, the mortality rate of cancer cases in the first year is higher in India.

the same time, it would be incorrect to compare illnesses of varying durations because multiple utilisation is more likely to take place in prolonged illnesses. In order to allow equitable comparisons amongst such diversity, it is not enough to have a reasonably large recall period. It is equally necessary to have the same recall period for all illnesses.

The time frame should be long enough to allow for the manifestation and identification of illness, its management and possible re-evaluation of the treatment strategy. There is a great deal of variation between illnesses and their manifestation in individuals. Some illnesses may take hours or days to manifest themselves, whereas a latent condition takes years to become noticeable. Also, an illness may be of different severity in different people or at different times in the same person. Many illnesses are at times not diagnosed accurately at onset. For example, illnesses like cancer may take a long time to manifest and at times may be diagnosed and treated inappropriately. Similarly, a considerable time may elapse before occasional headaches become frequent enough and taken seriously. Some researchers (e.g. Olsen et al., 1976) prefer to limit the time frame to a single episode of an illness. Such episodes are quite difficult to distinguish and define. In chronic or recurring illnesses, it becomes even more difficult as episodes overlap. Another disadvantage of a very short period is that the seasonal variations and epidemics could grossly bias the utilisation behaviour. It is, therefore, equally necessary to avoid too short a time frame.

But, if the time period is too long the respondents may either fail to report an event or overstate it. This is a cross-sectional study and relies very heavily on the

respondents' enumeration of the past events i.e. their ready and correct recall[4]. Any retrospective study is likely to suffer from mis-reporting, under-reporting or over-reporting of information as a result of loss of memory over a period of time[5].

A period of five years is judged to be long enough for illnesses to manifest themselves and at the same time short enough to allow fairly accurate recall. It can be argued that the nature of information partially influences the extent of recall. Certain kinds of information are better retained than others in terms of quantity and quality. For example, a more distressing illness is likely to be remembered in detail for a longer period of time than a minor cut on a finger. Martorell et al. (1970) found that minor illnesses got under reported even when the recall period was as short as one week. Similar results were obtained by Cannell, Fisher and Bakker (1965) who classified illnesses according to their seriousness ("not threatening", "somewhat threatening" and "most threatening"). They found that under-reporting was negatively inked to the threat of the illness. This strongly suggests that memory loss is a function of both time as well as the significance of the illness. All twelve illnesses chosen in the study are assumed to be fairly significant for an individual who would have encountered them. Needless to say, if an individual feels that he/she is suffering from a certain illness, that illness - however minor it may be - is bound to be important to him/her. Therefore, it is not essential to have a very short period

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[4]Essentially, there are three cognitive processes involved in any account of an event including that of an illness. The processes are namely: perception, retention and recall. The researcher can exercise only a limited degree of control over events being either incorrectly perceived or cause difficulties in retention. However, efforts can be directed towards controlling the effects of interference in recall.

[5]For example, Freij and Wall (1977) in their detailed methodological study in Ethiopia found relative over-reporting of recent illness and under-reporting of previous illness.

of recall, as long as it is dealing with a fairly recent illness which the respondent considers to be significant. In short, even though memory is a highly selective process, this selectivity in itself is important in a study like this.

6.2.5. DEFINITION OF ILLNESS

In this study, the interviewees were allowed to label their own condition, a judgement which might or might not have been medically influenced. This assumes that all people have specific notions and the necessary abilities to diagnose and treat ill-health. It has been noted that there can be some individual variation between laymen while defining an illness (e.g. Colson, 1971). It can, therefore, be argued that the individuals in the study are grouped on the basis of similarity in labelling rather than the actual medical condition. But, as discussed earlier, the need and choice of treatment is subjectively decided. Bearing in mind the principal aim of the study, the interest does not lie in testing the efficacy of various systems but in understanding the utilisation process. The perceptions of the patient are, therefore, more important than medical evaluation of their condition. Moreover, since the majority of the illnesses included in the study require professional intervention, the subjective assessment is likely to be validated in any case. It has been observed that the definitions of patients agreed with that of the doctors for the majority of the illnesses (Boyle, 1970).

For a utilisation study like this one, total reliance on the objective definition can be counterproductive. Whereas the objective definition would exclude those who are actually healthy but perceive themselves to be ill, the subjective one would exclude those who are actually ill but consider themselves to be healthy. While the former excludes potential utiliser of the health-care sources, the latter includes those

who are the involuntary users of health-care services. Since the purpose of the study is to understand the voluntary utilisation behaviour, the concentration should be on the former rather than the latter.

Moreover, the answers of the patients are known to differ according to the person asking the questions. Not only are their answers to questions from other laymen different from their responses to professionals, but the same individual often gives different answers to practitioners of different systems (e.g. Press, 1969; Durkin-Longley, 1984). Since professionals rely on patients' descriptions to varying extent, their assessments may not always be as objective.

6.3. OPERATIONAL DEFINITIONS & MEASUREMENTS

6.3.1. STAGES OF UTILISATION BEHAVIOUR

The stages of utilisation behaviour have been defined as a period of use of one or more sources of treatment without alterations. In other words, as soon as any changes are made in treatment strategy, a different stage is deemed to have begun. This demarcation on the basis of alterations in the treatment strategy has been obtained on the basis of the pilot study.

The changes in the treatment strategies as described and illustrated in Table 6.1 can be in the form of addition, replacement and reduction. However, there are two exceptions. Firstly, since the use of Popular sources in India is almost an everyday occurrence, people are less likely to accurately report their usage. Therefore, changes of sources within the Popular sector have not been considered as constituting separate stages. That is to say, individuals who remain within the Popular sector (i.e. have not entered the professional sphere at all) exhibit only one stage of utilisation, irrespective of the number of changes they have made. Secondly,

Table 6.1. DEFINITIONS AND EXAMPLES OF VARIOUS TYPE OF CHANGES BETWEEN TWO SUCCESSIVE TREATMENT STRATEGIES

TYPE OF CHANGE	DESCRIPTION	EXAMPLES	
Replace/add within same system	alterations of sources within the same system	1.	replacing the Allopathic family doctor with another doctor
		2.	supplementing the treatment of an Allopathic doctor with that of an Allopathic specialist
Replace sources/s with new ones from other system/s	discontinuation of the present form and substituting it with a new one from another system	1.	an individual using Popular sources decides to discontinue them in favour of Allopathy
		2.	an individual using Allopathy and Popular sources decides to terminate the Allopathic treatment in favour of *Ayurvedic* one
		3.	an individual using Allopathy and Popular sources decides to terminate both treatments in favour of *Ayurvedic* and Homoeopathic ones
Supplement with new source/s from other system/s	alterations leading to addition of new sources to the existing ones	1.	an individual using Popular sources decides to continue with them but also add Allopathic ones
		2.	an individual using Allopathy and Popular sources decides to add *Ayurvedic* and/or Homoeopathic
Reduce source/s from the existing combination	discontinuation of one or more sources without replacing or supplementing with new ones	1.	an individual using Allopathy and Popular sources decides drop Allopathic ones
		2.	an individual using Allopathy, *Ayurved* and Popular sources decides to drop Allopathic ones but continue with *Ayurvedic* and Popular sources
Reduce and Replace with new sources	revision leading to replacement of one of the sources and discontinuation of another, such that in the next strategy the total number of sources are less than the present	1.	an individual using Allopathic and Popular sources decides to discontinue Popular and replace Allopathy with *Ayurved*
		2.	an individual using Allopathy, *Ayurved* and Popular sources, decides to discontinue with Allopathy and Popular and replace *Ayurvedic* with Homoeopathy
Replace and add new sources	revision leading to replacement of one of the sources and discontinuation of another, such that in the next strategy the total number of sources are more than the present	1.	an individual using Allopathy decides to replace it with *Ayurveda* and supplement it with Popular
		2.	an individual is using Allopathy and Popular sources decides replace Allopathy with *Ayurved*, continue with Popular and add Homoeopathy
		3.	an individual using Allopathy, *Ayurved* and Popular sources, decides to replace Allopathy Homoeopathy and add Sacred sources

for these very reasons, the use of popular sources before entering professional care is considered only as a phase within a stage rather than constituting a separate stage.

An alternative definition of the stages of utilisation behaviour could have been on the basis of a stipulated time span. But this would not be very effective. The intricacies of utilisation behaviour cannot be captured if its stages are defined on the basis of periodic intervals. As described by Fabrega, there are enormous variations

within illnesses making it difficult to uniformly divide stages. To illustrate, the rapidly changing course of an illness like typhoid necessitates the periodic interval defining a stage of utilisation behaviour to be brief whereas in the case of rheumatism, the same period is inappropriate. Moreover, the study is based on retrospective data which is highly vulnerable to loss of memory. The inaccuracy of reporting could get further accentuated if respondents are asked pointedly to recall events within a specific time interval. In the case of a prospective study, stages could be divided into uniform time intervals. But for the purpose of the present study, stages are demarcated on the basis of the re-evaluations and/or decisions on changes in treatment strategy.

Due to the subjective nature of the phenomenon, the stages need to be carefully labelled, avoiding terms like early and later. In fact, the stages have to be named after different transition points. The first stage is defined by entry into the professional sector whereas the variations in the sources of treatment used in the preceding stage marks the second stage. Similarly, further changes mark out the subsequent stages (three, four and so on).

6.3.2. PATTERNS OF UTILISATION BEHAVIOUR

The pilot-study has demonstrated that a pattern can be delineated in utilisation behaviour. Basically there are two levels of patterns of utilisation behaviour. Whereas the first deals with actual **patterns** of usage (e.g. a movement from Allopathic to non-Allopathic sources), the second differentiates patterns into two broad groups, namely exclusive and multiple. For convenience, the latter has been also referred to as **types** of utilisation behaviour. Information on patterns of utilisation behaviour is elicited by asking the respondents to state the forms of care

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they used during different stages of utilisation.

Basically, this denotes viewing the series of moves that characterise utilisation behaviour in a sequential order. But this is an aspect which is largely ignored in the literature on utilisation behaviour. These processes are essentially tied to the various stages of utilisation. It is, therefore, important to view the phenomenon of utilisation in its entirety as a process in order to be able to comprehend the underlying patterns which underpin the whole.

Before proceeding further, it is necessary to consider the status of non-formal sources (Popular and Sacred). The patterns are defined on the basis of formal sources (use of professional care based on Allopathy, *Ayurveda* and Homoeopathy). In other words, use of non-formal sources with formal ones either simultaneously or sequentially, is not considered to be a multiple pattern of use. The non-formal sources are not considered to be independent sources for two reasons. Firstly, because of their extensive use, almost the whole sample will be treated as multiple users. As observed during the pilot study, most respondents (interview) stated that they would use Popular sources in addition to professional ones. Secondly, considering the sequential nature of utilisation process, the number of permutations increase dramatically with every additional source of treatment. For example, two sources can be used sequentially in two ways whereas three sources can be used in six different patterns (and many more if repetitions and combinations of these sources were to be taken into consideration). Keeping in mind the nature of the study and the plurality in sources, every additional source of care unnecessarily adds to the complexity. Since the present study is essentially an exploratory study, it is very important to operate with a restricted definition. The aims of the study will be

facilitated by concentrating on the patterns formed by the use of the three major

formal medical systems only. Moreover, currently available statistical techniques

cannot cope with such a detailed and multi-layered phenomenon. However, there is

one exception. While discussing the emergence of patterns (chapter 8), the Popular

sources are considered to be independent forms of care. This has been done to

provide an overview of the dynamism that underlies health-care utilisation behaviour

before concentrating only on the formal sources for the purposes of hypotheses-

Table 6.2. DEFINITION OF TYPES AND PATTERNS OF UTILISATION

TYPES OF UTILISATION	PATTERNS OF UTILISATION	DESCRIPTION
EXCLUSIVE	Allopathic	Use of Allopathy only
	Ayurvedic	Use of *Ayurvedic* system only
	Homoeopathic	Use of Homoeopathy only
	Popular	Use of only Popular sources (no use of professionals of the formal system)
MULTIPLE	Allo. = > Ayu.	User of Allopathy moving into *Ayurvedic* system at some stage before discontinuing treatment
	Allo. = > Homo.	User of Allopathy moving into Homoeopathy
	Allo. = > Ayu. & Homo.	User of Allopathy moving into *Ayurvedic* system followed by Homoeopathy or vice versa
	Allo. = > non-Allo. = > Allo.	User of Allopathy system moving to *Ayurvedic* or Homoeopathic system and returning to Allopathy
	non-Allo. = > non-Allo.	User of *Ayurvedic* system moving to Homoeopathy or vice versa
	non-Allo. = > Allo.	Users of *Ayurvedic* or Homoeopathy moving to Allopathic system
	Allo. & non-Allo.	Use of Allopathy and *Ayurvedic* systems simultaneously in at least one stage

testing in chapter 9.

The patterns can be discerned for both exclusive and multiple types of utilisation (Table 6.2). In the exclusive type, the movement can only be between one of the formal and non-formal sources. The resulting patterns are therefore comparatively less pronounced. The patterns within multiple usage form a complex web of relations resulting from movements across more than one formal source. In any case, as noted earlier, the interlude between the use of two formal systems may be marked by trying out non-formal sources either independently or in combination with formal systems.

6.3.3. DETERMINANTS OF UTILISATION BEHAVIOUR

The explanatory variables have been loosely classified under various categories notwithstanding the interwoven nature of their relationships and resulting overlaps among them.

6.3.3.1. PREDISPOSING COMPONENT

DEMOGRAPHIC VARIABLES:

Age: Errors in age reporting are very common in India and reasons ranging from illiteracy to preference for digits 5 and 10 have been advanced (Saxena et al. 1986). Age is, therefore, measured in intervals of five years for all persons over the age of 15 excepting those over 60 when categories have been collapsed.

SOCIAL STRUCTURAL VARIABLES:

Occupation: Occupation can be an important indicator of social status in India. For men, their own occupation was used as an indicator. The occupation of husband or father was used for women (both working and non-working) and non-earning youngsters (both male and females) respectively. In this study, occupation is

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categorised into following levels:

Level 1: Professionals, Executives
Level 2: Manufacturers, Businessmen
Level 3: Small businessmen, Agents
Level 4: Sales, Clerks, White collar jobs
Level 5: Skilled Manual
Level 6: Unskilled Manual workers
Level 7: Housewives (single women without father or husband)
            and wives of retired husbands
Level 8: Miscellaneous
Level 9: Unemployed

Education: The number of years of formal schooling completed is used to measure

the educational level of individuals. The six educational categories which mark the

usual break-off points in the educational ladder in India are as follows:

Level 1: no schooling
Level 2: less than 4 years,
Level 3: between 4 and 8 years,
Level 4: between 8 and 11 years, higher secondary
Level 5: diploma
Level 6: university degree and more

Medium of instruction: Gujarati children rarely go to schools which teach in other

vernacular languages (e.g. Hindi, Marathi). It is, therefore, not necessary to

consider languages other than Gujarati and English as alternative medium of

instruction. However, there exist mixed-medium schools which conduct teaching in

both English and Gujarati. Whereas some of these teach certain subjects in one

language and the rest in the other, many teach all subjects in Gujarati until standard 7

and then switch to English. As a result, three categories emerge, namely mother-

tongue, mixed and English medium.

BELIEF VARIABLES:

Attitudes to Shopping: In this study, six attitude statements dealing with orientations

towards seeking alternative and multiple sources (measured on a 5-point agree-

disagree scale) have been used.

Prior Belief in Efficacy of a System: It was indicated by the most preferred formal medical system (Allopathic, *Ayurvedic*, Homoeopathic) prior to the onset of the current illness. Those exhibiting preference for more than one system have been classified as "others".

SOCIAL NET-WORK VARIABLE:

Prior and Stage-specific Source of Advice: It has been measured by eliciting information on the sources of advice on health-related matters prior to illness as well as at the time of revising each of the treatment strategies. For those seeking advice from others, the sources may range from family or neighbours to a professional. But this does not exhaust the entire source of support as there are others (e.g. caste and community groups) which however play a less significant role and, therefore, are not included here. In Bombay, where many live in apartment blocks or *chawls* (buildings with many single-room apartments), intimacy amongst neighbours is common. Neighbours are often considered to be a part of the family and addressed as one (brother, sister-in-law, aunt, uncle etc.). The sources of advice (stage-specific as well as prior to illness) have been grouped as follows:

LAY GROUP:	immediate and extended family, relatives, neighbours, friends, members of social and religious groups, colleagues at work
PROFESSIONAL:	qualified practitioner of any formal system, qualified pharmacists and paramedics
PROFESSIONAL AND LAY:	collaboration between professionals and lay individuals, a member of lay group who is also a qualified practitioner of a formal system, semi-qualified paramedics like *compounder*
OWN:	completely self-initiated

6.3.3.2. ENABLING COMPONENT

FAMILY AND INDIVIDUAL RESOURCE VARIABLES:

Income: It is defined here as the current total earnings of the family members (presently residing) per month. It has been divided into four tiers

LOWER CLASS	LEVEL 1:	less than Rs. 1000
	LEVEL 2:	Rs. 1000-1999
UPPER CLASS	LEVEL 3:	Rs. 2000-4999
	LEVEL 4:	Rs. 5000 or more.

These divisions are modelled on the basis of official statistical indices. To gather information on the income of a person is difficult not only because it is a sensitive topic but because it is not readily known. The majority of the people don't know the exact income they earn for it is possible that income may come from several sources besides one's main occupation (like income from a farm in the village, next of kin). It is equally difficult to establish the income of a wage labourer. On an average women do not earn a living, except among the lower socio-economic classes. Normally the earnings of a daughter are saved for her marriage, so they do not contribute towards the family's standard of living. The prevalence of 'black money' amongst the upper classes further complicates the issue. Therefore, some inaccuracy is inevitable whilst gathering information on income. Since the purpose of obtaining information on income is to establish a rough comparative estimate of the standard of living, a very simple measure is sufficient.

Prior Access to Regular Allopathic Care: It is indicated by access to a regular Allopathic physician, i.e. the family doctor before the onset of illness under consideration.

Prior Access to Regular Non-Allopathic Care: It refers to regular use of one or more

non-Allopathic sources prior to onset of the current illness. In order to increase the accuracy in reporting additional responses on simultaneous and sequential use of Allopathic and non-Allopathic sources were also elicited.

TREATMENT VARIABLES:

Scepticism of care: It has been measured by asking respondents to state on a 5-point scale the extent to which the practitioner could cure the illness with the treatment being provided (complete cure, almost complete cure, partial cure, some cure, no cure but some relief).

Matching Diagnostic Paradigms: The information on similarity of diagnosis has been elicited by asking the respondents if there was a difference in the diagnosis they made prior to seeing the professional and the one made by the latter.

Level of Satisfaction: The degree of satisfaction with the services (diagnosis and treatment) being provided by the professional was measured on a five-point scale (very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, very dissatisfied).

Accuracy of Professional diagnosis: The respondents were asked to state whether the diagnosis made by the first professional was clinically accurate.

Compliance with Instructions: The extent to which the respondents complied with the instructions of the professional (totally, partially or hardly) was also included.

Stage-specific Expectation from New Treatment Strategy: Each alteration in treatment strategy is accompanied by expectations from the new combination. These expectations range from, diagnosis to need for permanent cure. The respondents were asked to state the most relevant motivation for selecting the new strategy. They were asked to select from the following options:

1.   to obtain immediate relief
2.   to obtain total cure
3.   previous experiences or faith proved that cure can be obtained
4.   to experiment or try out the source in case it can cure
5.   to diagnosis, second opinion, confirmation of their own diagnosis
6.   to obtain diagnosis as well as cure
7.   any other

Since option 6 is broad enough to include the remaining options, option 6 was not

read out. It was offered only when the interviewer felt that none of the other options

were suitable.

STAGE-SPECIFIC IMPACT OF TREATMENT VARIABLES: This was indicated

by various reasons for discontinuing each of the treatment strategy. The respondents

were asked to select the most relevant reason - ranging from financial constraints and

dissatisfaction to partial or total recovery - for terminating the current strategy. The

treatment was stopped because you thought that the

1.   the symptoms were cured
2.   illness was cured from the "roots"
3.   symptoms were brought under control
4.   the improvement was not satisfactory
5.   there was no improvement at all
6.   there were severe side-effects
7.   the doctor/form of treatment was not capable of treating this kind of illness
8.   it was too expensive and could not afford it
9.   you could not understand what the doctor was saying, or that the doctor was not giving proper explanations or his/her manners were not pleasant
10.   any other

While reasons 4 and 5 are indicative of the dissatisfaction, 8 suggests the financial

constraints and 9 touches on the aspects of the patient-practitioner relationship.

6.3.3.3. ILLNESS COMPONENT

There are two aspects of illness variable to be considered, namely their types

and manifestations. Type of illness denotes an overall concept which refers to the

clinical classification or labelling of an illness. The manifestation of an illness refers

to the aspects related to the unfolding of an illness and its various stages.

TYPE OF ILLNESS: In this study, the perception of attributes such as severity, chronicity, perceived vulnerability, possibilities of prevention, and recovery are used to derive groupings of illnesses. These perceptions of the respondents of their specific illness are measured using 14 statements on a 5-point scale.

MANIFESTATION OF AN ILLNESS: Since different aspects and processes are relevant at different stages of utilisation, information on these aspects has been gathered selectively. Each of these processes and aspects have been examined to a varying degree in the study with the help of open-ended and multiple choice questions.

Symptoms at Onset: An open-ended question elicited information on the initial symptomatology.

Preliminary Attribution of Cause: Fifteen categories of causal attribution were included. While some originated from specific medical systems like *Ayurveda* (e.g. *tri-dosha*, *prakriti*) and Allopathy (e.g. viral infection, lack of hygiene) others were more general and common to both. Some of these referred to stress, irregularity in routine, pressures of city life, faulty dietary habits, neglect, old age, lack of exercise, exposure to extreme climate. A category dealing with supernatural causes (evil eye, fate etc.) was also included.

Accuracy of Lay Diagnosis: If the initial diagnosis made by the respondent was the same as the actual clinical identification of the illness, the illness was considered to have been predicted accurately.

Initial Nature of Symptoms: The initial symptoms may be perceived as serious, painful, disruptive and worrying. The degree of each of these were measured on a

five-point scale.

Duration of Illness: It was measured in number of years since onset.

Stage-specific Illness Characteristics: Each alteration in the treatment strategy is influenced by the illness characteristics which are specific to that point in time and may be different from the overall attributes of the illness. The respondents were asked to select the most relevant illness characteristic which triggered the revision of the previous strategy. The categories were as follows:

1. severity
2. pain
3. disruption
4. desire to prevent further deterioration in health/recuperation
5. persistence of symptoms
6. complications or severe relapse
7. any other

The first three characteristics have been referred to as the nature of illness.

6.4. DATA COLLECTION

This section addresses the methodological issues and attempts are made to reduce the sampling and measurement errors and biases by improving the instrument and method of data collection.

6.4.1. SAMPLE DESIGN

The quality of the research finding is dependent on its sampling design. The advancements in sampling methodology and statistical techniques enable a researcher to carefully plan a sample to meet the inferential requirements of the study. The present study, like the majority of health-care studies (apart from epidemiological ones) is based on a sample rather than on the entire population. The appropriateness of any sample design has to be assessed in light of the resources, aim of the study and its applicability. A systematically collected sample ensures the necessary control

and detailed information required in such a study.

Quota sampling[6], a variant of non-probability sampling, has been used to collect data for the present study. Although subjectivity could interfere with the generalisability of results[7], quota sampling has several advantages in the present context.

ADVANTAGES OF USING QUOTA SAMPLING: Essentially, this research is an analytical study exploring various aspects of utilisation behaviour and its determinants. One of the aims is to assess the impact of illness type on utilisation behaviour. But, illnesses are not alike in their distribution and frequency of occurrence. A probability sample is likely give a skewed distribution with higher proportion of illnesses which are common (like colds, headache) and almost negligible proportion of rare ones (like cancer)[8]. It is, therefore, essential - both statistically and rationally - to have groups which are comparable.

Secondly, unlike some of the western countries, there is no centralised health service in India. As a result, it is not possible to select sample from general

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[6]The task of the researcher in a quota sampling study is to collect data from the predetermined number of cases in each category. Ideally, the size of the quota groups would be proportionate to the population. Often for simplicity, equal size groups are gathered. For example, two groups of 60 employed and unemployed people which are further divided according to gender into groups of 30 each. Sometimes, these two groups may be divided further (e.g. into three age groups, of 10 individuals in each cell).

[7]Such sample estimates cannot approximate population parameters in a highly differentiated population. In a quota sampling, the interviewer is left to decide who will be interviewed from all the people who may be eligible. As a result, compared to the randomly collected sample, the quality of information may be affected.

[8]It may be of interest to note that, while collecting data for the present study, the cells for common illnesses were very quickly filled up. To give an estimate, by the time cells of illnesses like colds, headache etc. were completely filled, only 25% of the cancer patients had been interviewed.

practitioner's record. A random sample using systematic sampling or stratified sampling techniques can only be used when such records are obtainable. Alternatively, a random sample from the total population will have to be sufficiently large to gather the required data. Considering the size and nature of the research, such an attempt would be both ambitious and impractical.

Thirdly, quota sampling is more flexible and economical when nonresponses[9] are encountered. The nature of the problem under study is likely to increase the probability of nonresponse. It was noted during the pilot-work that an average person is not used to the demands of an interview - be it formal or informal. Needless to say, such a novel and difficult activity is likely to deter an ill person more often than a healthy one. Quota sampling with adequate controls, offers the freedom to gather data from alternative sources within the category[10].

Since the aim of the research required comparison of equal number of people per category of illness, the quota sampling technique was judged to be optimal. The extent of bias is controlled by adopting a strict sampling frame.

<u>6.4.2.</u> **SAMPLING FRAME:** It involved three levels of explicit controls and a few subtle ones. Differences in gender and income are associated with illness type, amount and reporting, which in turn, are linked to greater propensity to use services (see McKinlay, 1972 for a comprehensive review). In order to reduce this bias, the

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[9]Nonresponse may occur at two levels. The individual may either refuse to participate from the beginning or fail to complete either due to personal or social reasons.

[10]Nonresponses are not uncommon in a probability sample and can occur for a number of reasons. Often nonresponses suggest failure of interview situation, rather than a weakness in sample design.

number of respondents was fixed for each of these groups. This produced a three

factorial design with gender (2) income (4) and illness (12). The resulting sampling

frame can be represented as follows:

SAMPLING FRAME

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                        ┌─────────┐
                        │   480   │
                        └─────────┘
          ┌──────────────────┴──────────────────┐
        2 0                                    2 0
   ┌──────────┐                          ┌──────────┐
   │   MALE   │                          │  FEMALE  │
   └──────────┘                          └──────────┘
   INCOME  LEVELS                        INCOME  LEVELS
  ┌────┬────┬────┬────┐              ┌────┬────┬────┬────┐
 60   60   60   60             60   60   60   60
┌───┐┌────┐┌─────┐┌────┐       ┌───┐┌────┐┌─────┐┌────┐
│ I ││ II ││ III ││ IV │       │ I ││ II ││ III ││ IV │
└───┘└────┘└─────┘└────┘       └───┘└────┘└─────┘└────┘
ILLNESS ILLNESS ILLNESS ILLNESS  ILLNESS ILLNESS ILLNESS ILLNESS
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 ┌───┬───┬───┬───┬───┬───┬───┬───┬───┬───┬───┬───┐
 5   5   5   5   5   5   5   5   5   5   5   5*
┌─┐ ┌─┐ ┌─┐ ┌─┐ ┌─┐ ┌─┐ ┌─┐ ┌─┐ ┌─┐ ┌─┐ ┌─┐ ┌─┐
│A│ │B│ │C│ │D│ │E│ │F│ │G│ │H│ │I│ │J│ │K│ │L│
└─┘ └─┘ └─┘ └─┘ └─┘ └─┘ └─┘ └─┘ └─┘ └─┘ └─┘ └─┘
```
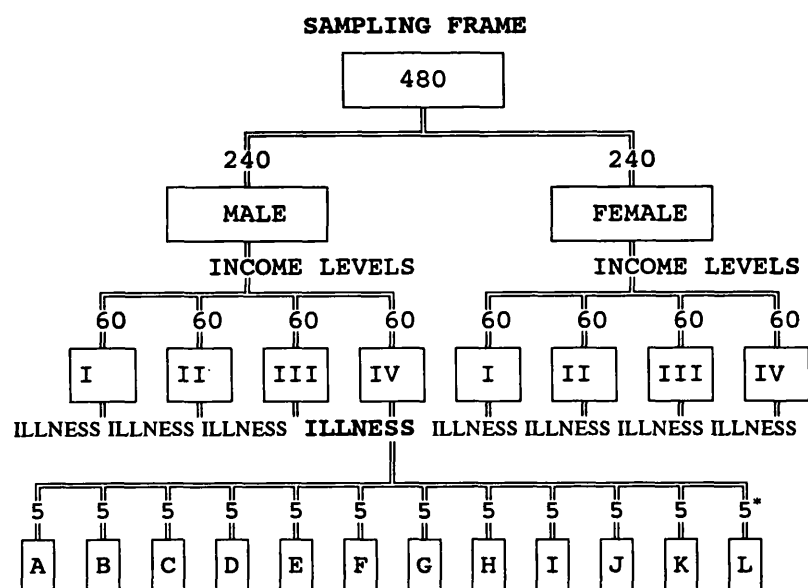
* A-L refer to 12 illnesses, namely, acidity, colds, headaches, 'gas', constipation, jaundice, typhoid, rheumatism, piles, blood pressure, diabetes, cancer

6.4.3. SAMPLE SELECTION

The above sample frame was operationalised in the following manner. It was

based on only one member of the household who was present at the time of contact.

Neither proxy responding nor anyone under 15 years of age was accepted.

Moreover, an individual was only included if his/her illness began within the five

year period under study (from 1981 to 1986). Individuals whose illnesses started

either more than five years or less than a year ago at the time of data collection were

excluded. Individuals suffering from illnesses which are known to be 'correlated'

(e.g. B.P. and diabetes; colds and headache) or which had their onset more or less at

the same time were excluded from the study. This was done to limit the

contamination of data. As a result of coexistence, the diagnosis, prognosis and

treatment are inter-related and overlapping. Isolating one of these illnesses would

affect the quality of the data. To sum up, the respondent must have suffered from only one of the twelve illnesses which must have begun more than a year but less than five years ago.

The respondents were chosen in the following manner. Bombay, like many cosmopolitan cities can be divided into sections. Different areas are reputed to be dominated by certain linguistic, income, racial and religious groups. A list was made of the buildings with predominantly Gujarati residents in south Bombay. It was discussed with two people with some research experience in Bombay. A rough itinerary and a coding sheet of quota requirements was prepared. Most women and retired men were contacted during the day time and working men during the evenings or weekends at their homes[11]. Typically, the starting point was the first flat to be noticed in an apartment block. Depending on the size of the building, between 10 and 25 flats were contacted. Care was taken to leave reasonable gaps between flats and whenever possible every 10th flat was chosen.

The investigator was introduced as a student doing research on issues related to health and illness. While seeking their permission[12], minimum information about the actual purpose of the study was volunteered in order to reduce any bias. Emphasis was placed on assuring the respondent that the investigator was not from

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[11]In Bombay, the majority of offices have a five day week of nine hours a day and businesses have a six day week of 8-10 hours a day. Late evenings and Sundays are most suitable for gathering data on these individuals.

[12]Generally in India, it is not necessary to obtain a written consent from the respondent. It is very likely that by asking him to sign a consent form, the prospective interviewee would be made suspicious. The need for anonymity in research, compared to the West, is by and large incomprehensible to most Indians. Furthermore one could argue that it is more important in topics other than the current one.

any official organisation and that the information would be kept totally confidential[13]. It is interesting to note that very few respondents insisted on letters of introduction or similar proofs to establish the researcher's bona fides.

Initially, all interviewee were asked if they had suffered from some kind of major or minor illness in past five years. If one of the illnesses included in the study was mentioned, details about its onset were obtained to reconfirm that it fell within the time period under consideration. If none of the illnesses were mentioned, a list of twelve illnesses was read out. If they could not be selected, they were asked if any family members had suffered from one of these illnesses. If more than one illness 'unrelated' illness was mentioned, they were either questioned on the more recent one or not included in the study. Care was taken to avoid 'snowball sampling' (i.e. the recommendation of a person known to the respondent)[14]. As far as possible, respondents were questioned alone. In the rest of the cases, care was taken to reduce participation of family members.

Once the respondent was selected, information on the second classificatory variable, i.e. income was gathered. Requesting information on income has always been considered tricky in India. Because of 'black' money and tax evasion practices, those from upper income groups tend to be secretive about their true income. The fear of information percolating to the income-tax department, coupled with fear of

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[13]Some people, especially poor people, were further reassured that the investigator did not belong to any official body and the data would not be made available to any organisation. This was done to ensure that she was not confused with epidemiologists, or other public health personnel or the income-tax department.

[14]In India, once a little confidence has been established, it is not unusual to take interest and go out of one's way to help. Interviewing people on recommendations would increase bias.

arousing unnecessary jealousy deters many from being forth-coming. A direct question on income, especially at the beginning of the interview was likely to arouse suspicion. Moreover, since the interviews were conducted at their homes, anonymity was only partial. As a result, only casual efforts were made initially to establish whether their family income was under Rs.2000 a month or not. Excepting when quota groups were almost full, additional information on income was obtained only on completion of the interview.

Due to unequal distribution of illnesses, it was not possible to obtain the required number of individuals per cell for some illnesses. About 11% of the sample (N=53)[15] was therefore, interviewed in the waiting rooms of clinics, out-patient and in-patient departments of hospitals and nursing homes. In order to gather more representative data, individuals from several hospitals and dispensaries were sought. Basically, every third or fifth person was asked what illness s/he was suffering from and when did it first begin. Care was taken to avoid inviting attention from other patients[16]. The in-patients, not more than two from each ward, were approached last.

The interviews, on an average, lasted for over an hour. Those who failed to complete (N=43) were not included in the final sample. The interviewees were not offered any payment.

6.4.3 DATA ELICITATION PROCESS

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[15]Cancer (29) Blood Pressure (6) Piles (5) Diabetes (3) Rheumatism (3) Typhoid (3) Jaundice (2) Acidity (1)
Constipation (1).

[16]It was equally important to avoid people cooperating either out of curiosity or pity (i.e. by relating a vicarious episode of illness).

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Reliable and accurate data is difficult to obtain in any type of research, and generally, the nature of the research determines the most efficient way of collecting data. A cross-sectional design wherein retrospective data is collected using a detailed questionnaire at a fixed point in time was preferred over several alternative forms of data gathering techniques[17].

THE INSTRUMENT

The present instrument was designed to obtain a descriptive, systematic and standardised account of the nature and contents of different aspects of the perceived illness by an individual. It was a questionnaire with a mixture of pre-coded and open-ended questions. The instrument was mostly devised on the basis of the observations and discussions carried out during the pilot work. To recapitulate, it was noticed that the majority of Indians (irrespective of their educational qualifications) are not used to writing answers. Moreover, the instrument should be able to follow a sequence of naturally occurring events which may vary from one individual to another.

The instrument, as a result, was punctuated with open-ended questions in order to capture additional information and maintain uninhibited flow of information, yet sufficiently structured to enable standardised analysis. Since the quality of the data hinges heavily on the design and the contents of the questionnaire, close

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[17]The ideal approach, of course, would have been to record events as they happened or at regular intervals either by the researcher or by respondents maintaining a daily diary. The advantages of using either of the techniques are obvious, especially when the data is sensitive to changes in time. Given the practical difficulties of carrying out a longitudinal study in the context of the present research, diary method could be the only viable option. But, because of lower levels of literacy in India and the fact illnesses are generally disruptive, diaries may not be practical since they tend to place greater demands on the respondents.

attention was paid to the construction of the questionnaire - especially the nature and

the wording of the questions.

The information to be elicited in the study can be grouped into the following

categories:

1. Background information on all predisposing and some enabling variables
   a. demographic, social structural, social, belief in efficacy of systems, and attitudes towards the use of multiple sources
   b. family and individual resources, prior access to health-care sources,
   c. practice and rapport-building questions on past heath-seeking behaviour
2. Illness specific information:
   a. health seeking process for a specific illness
   b. perception of their specific illness based on fourteen attitude items and three general questions

Before obtaining detailed information on different aspects of each stage of

utilisation, an attempt was made to establish rapport by asking simple factual

questions. It was hoped that these questions would give the interviewee some

practice and familiarise them with the interview to follow. Questions pertaining to

the specific illness were not asked until a rapport was established. Socially delicate

issues were avoided and as explained earlier, certain questions were approached

carefully (e.g. income). For closed questions with fixed alternatives, care was taken

to ensure that the respondents fully understood the questions and were able to classify

their opinions in fixed categories.

As far as possible, the respondents were encouraged to express and share their

experiences and lay "theories". The respondents were not interrupted while they

were thinking or giving apparently irrelevant information. Moreover, extra care was

taken not to intimidate them. They were neither rushed nor discouraged from

revising their earlier answers.

6.5. SUMMARY

The conceptual framework provided by the multi-dimensional model has been restated in terms of observable and measurable units. The conditions under which the model has been operationalised has also been explained. The explanatory and outcome variables have been operationally defined using a series of indicators. It is possible that the variables, their indicators, and the questions eliciting data have varying degrees of strengths and weaknesses in terms of reliability, validity and level of abstraction. Taylor (1979, p.78) has appropriately summed up the dilemma facing researchers in this field,

> "whatever can be measured is extremely crude, whatever needs to be measured is too subtle to measure with present instruments".

CHAPTER 7
ANALYSIS STRATEGY AND PRELIMINARY RESULTS

7.1 INTRODUCTION

The analysis of the present data involved both qualitative and quantitative evaluation of it. Needless to say, the nature of the data and the focus of the overall study both define and restrict the analysis. For example, the choice of statistical technique to be used in the present study must take into account the weaknesses of retrospective data. In other words, a statistical technique can only be used when assumptions pertaining to level of measurement, probability distribution, sampling etc. are satisfactorily met. The data obtained in the present study is analyzed in terms of both descriptive and inferential statistics.

Prior to performing the definitive statistical analysis, it is instructive to examine the sampling distribution as well as the structure of the relationship between several independent variables. Also, since some of the sub-components discussed in chapters 5 and 6, subsume more than one variable and indicator, the data need to be cross-validated and reduced to a manageable number. A summary on how variables were either condensed, eliminated, validated or constructed follows a brief description of the statistical techniques used in the analysis and the characteristics of the sample.

7.2 STATISTICAL TECHNIQUES USED IN THE ANALYSIS

7.2.1 PERCENTAGES

Due to complexity of the phenomenon under consideration, approximate nature of the instrument and difficulties in meeting the assumptions of independence and normality, there is heavy reliance on percentages as an analytical tool. These

percentages have not been calculated on the basis of the entire sample. Due to differential involvement at different stages or in different illnesses, the denominator varies. Due to multiple responses, at times the sum of percentages may exceed 100.

7.2.2. MEASURES OF ASSOCIATION

Although percentages are useful for displaying the distribution of a variable, they fall short of explaining the variation in the data. The measures of associations basically check if two or more variables are related as hypothesized. One of the popular tools is crosstabulation or joint contingency of two or more variables. In the present analysis, the statistical significance of crosstabulated data is tested with Chi-square (χ^2) distribution. The probability or significance level (α) used in the analysis is set at $\alpha = .05$ unless otherwise stated. In a 2x2 table, Yate's correction has been used and reported.

7.2.3 GENERALIZED LINEAR MODELS (GLMs)

One basic aim of the present study is to identify a minimal model of utilisation behaviour which is well supported by the data. The principle aim of statistical modelling is to "present a simplified or *smoothed* representation of the underlying population" (Aitkin, Anderson, Francis and Hinde, 1990 p.67).

This is attempted by using generalised linear models or GLMs. Derived from the classical models, the GLMs are ideal for studies such as this for at least three reasons. They score over classical models like linear regression in situations where

a)   the majority of events being measured are not continuous, and

b)   simultaneous consideration of more than two explanatory variables is important.

As McCullagh and Nelder (1990) put it,

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"With the introduction of generalized linear models, scaling problems are greatly reduced. Normality and consistency of variance are no longer required..." (p.23).

In the present study, the assumptions about normality can not be satisfied since most variables are measured on the nominal scale and the respondents are selected using quota sampling techniques. Secondly, the application of crosstabulation technique becomes increasingly difficult as the number of explanatory variables under consideration exceed three. The number of possible relationships multiply substantially when dealing with four or five dimensional tables as would have been the case in the present analysis.

In most data sets, there are certain variations which are systematic or representative of the underlying processes whereas others are spurious or occur by chance. The GLMs basically separate the systematic variations from the random variation. They then link the two sources of variations and model the systematic effect on the basis of appropriate probability distribution. The resulting solution is a more concise and better representation of the true processes. In short, as Aitkin et al. (1990 p.76) put it, they are

"defined by three components:

(1) a probability distribution $f(y)$ for the single response variable y depending on the mean μ , and possibly other parameters;

(2) a *linear regression function* or *linear predictor* in the p explanatory variables

$$\eta = \beta'x = \beta_0 x_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_p x_p$$

where x_0 is identically 1;

(3) a *parameter transformation* or link function g (μ) which relates the linear predictor η to the mean μ :

$$\eta = g(\mu).''$$

In this study, the analysis has been carried out using a binomial distribution and logistic (logit) link function. The "linear predictor" is expected to be a linear combination of the explanatory variables based on the framework presented in chapter 5 and defined in chapter 6. It is extremely important to exercise care and caution while selecting the probability distribution and the link function. According to Aitkin et al. (1990) the weakness or "failure of the model" may stem from four areas:

"(1) mis-specification of the probability distribution for y, leading to an inappropriate likelihood function and inappropriate maximum likelihood estimates for the parameters;
(2) mis-specification of the link function;
(3) the occurrence of aberrant observations, distorting either the probability distribution or the parameter estimates from the model;
(4) mis-specification of the systematic part of the model, leading to incorrect interpretations." (p.97).

They further add, that excepting the last area of weakness which can be "rectified by further modelling" (p.105), the rest should be carefully controlled before modelling can begin.

The probability distribution is the most important component of modelling. It is generally used to estimate the population parameters. Essentially, it defines the distribution of the random element. Bernoulli distribution is the natural distribution for categorical variables which are binary, since it takes into consideration the proportion of successful outcomes[1]. In the present study, the outcome variable, i.e. type or pattern of utilisation behaviour is essentially a dichotomous or binary variable (exclusive or multiple utilisation behaviour) and distribution of its random error is closest to the Bernoulli distribution. Since the existing statistical packages like GLIM "can not fit models to multiple response variables.." (Aitkin et al.,1990 p.69), the

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[1]In a Bernoulli distribution, μ or the mean is equal to the proportion of successful outcomes.

patterns of utilisation behaviours within each type, have been transformed into separate binary variables. The resulting models are obtained by comparing one pattern with those remaining in the group. For example, the model explaining the exclusive use of Allopathic care has been derived by comparing the Allopathic users against the exclusive users of Ayurvedic, Homoeopathic and Popular sources put together but excluding the multiple users totally.

The second important feature is the link function, which determines the scale on which the systematic variation is modelled. The link function basically connects the "linear predictor" to the expected values of the outcome variable. The transformation parameter used in the analysis is called the logit model. It is essentially a model for proportions or the logarithm of the odds ratio expressed as, $\log\dfrac{\pi}{(1-\pi)}$. There are two distinct advantages of the logit model. First, it is a simple model in terms of its assumptions as well as interpretations. Secondly, it is possible to apply it to data which has been collected retrospectively. As McCullagh and Nelder (1990) put it,

> "One important property of the logistic functions not shared by the other link functions is that differences on the logistic scale can be estimated regardless of whether the data are sampled *prospectively* or *retrospectively*" (p.111).

The third source of error as mentioned by Aitkin et al. (1990), essentially refers to inaccurate recording of data. Extreme care has been taken while coding and entering the data of the study to reduce this bias to the extent possible.

To achieve this, GLMs begin by replacing the data values with expected values based on the link function. Obviously, a model will be most accurate, when there are as many parameters as there are data values. In other words, it is a *full*

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model in which all variance is assigned to the systematic component. But that defeats the whole purpose of modelling. The aim of model fitting is to provide a simple model based on major systematic variation. Therefore, only those variables which are needed are included in the final model. The first step in modelling is to produce a *null model* which is composed of only one parameter. It is obtained by extracting the mean of all the data values and assigning the variation between the data values to the random component. In the subsequent stages, variables and their interactions are added to the *null model* until a satisfactory model is obtained.

Basically, the goal of modelling is to find an optimum model which lies between the *null* and the *full* models. This is done by checking the goodness-of-fit between the actual data and the fitted values obtained from the model. The goodness-of-fit criterion used is called deviance or "*scaled deviance*" $D^*(y;\mu)=2l(y;y)-2l(\mu;y)$ (McCullagh and Nelder, 1990 p.24). It is basically the logarithm of a ratio of likelihoods which assist in deciding if the discrepancy between the fitted values and the actual values is small enough to be ignored. The decision of whether the model is acceptable or not is made on the basis of χ^2 distribution with $\alpha = .05$ unless otherwise stated. The results of the study have been analyzed using a statistical package developed by The Royal Statistical Society called GLIM (Generalised Linear Interactive Modelling).

7.2.4. OTHER TECHNIQUES

Besides the above mentioned statistical techniques, the analysis also consists of limited application of two data reduction techniques (cluster analysis and factor analysis) and a classificatory technique (discriminant analysis) have been used. The cluster analysis (see Romesburg, 1984 for more details), is used to group illnesses

which are perceived to be similar. The factor analysis is used to identify the common factors underlying certain attitudes and perceptions. The discriminant analysis is used to identify group membership on the basis of explanatory variables.

The coding of open-ended questions is not entirely conventional. Since these answers were in Gujarati, it was not possible to do content analysis on words. As a result, despite the element of subjectivity, the data from open-ended questions have been analyzed qualitatively on the basis of themes. Either of the options - enlisting help of a trained researcher conversant with Gujarati or translating the contents into English - were not practical. Moreover, the open ended questions were included to maintain continuity while providing salient and insightful information. In order to reveal the contextual meaning and substance it was considered appropriate to carry out thematic analysis (see Krippendorf, 1980 for more details).

7.3 PRELIMINARY RESULTS

7.3.1. DESCRIPTION OF SAMPLE

Before exploring the interrelationship between various explanatory variables, it is necessary to know their distributions. This would assist in making decisions pertaining to the analysis as well as collapsing of categories of certain variables. The following section describes the sample with the help of important explanatory variables and their distributions.

Age: Age distribution as displayed in Figure 7.1, appears to be normally distributed. Whenever necessary, categories have been collapsed into four groups, namely 15-30 years, 31-40 years, 41-50 years and 51 years and over.

Education: The distribution of sample based on educational qualification, is positively skewed (Figure 7.2). Due to small number, those receiving higher
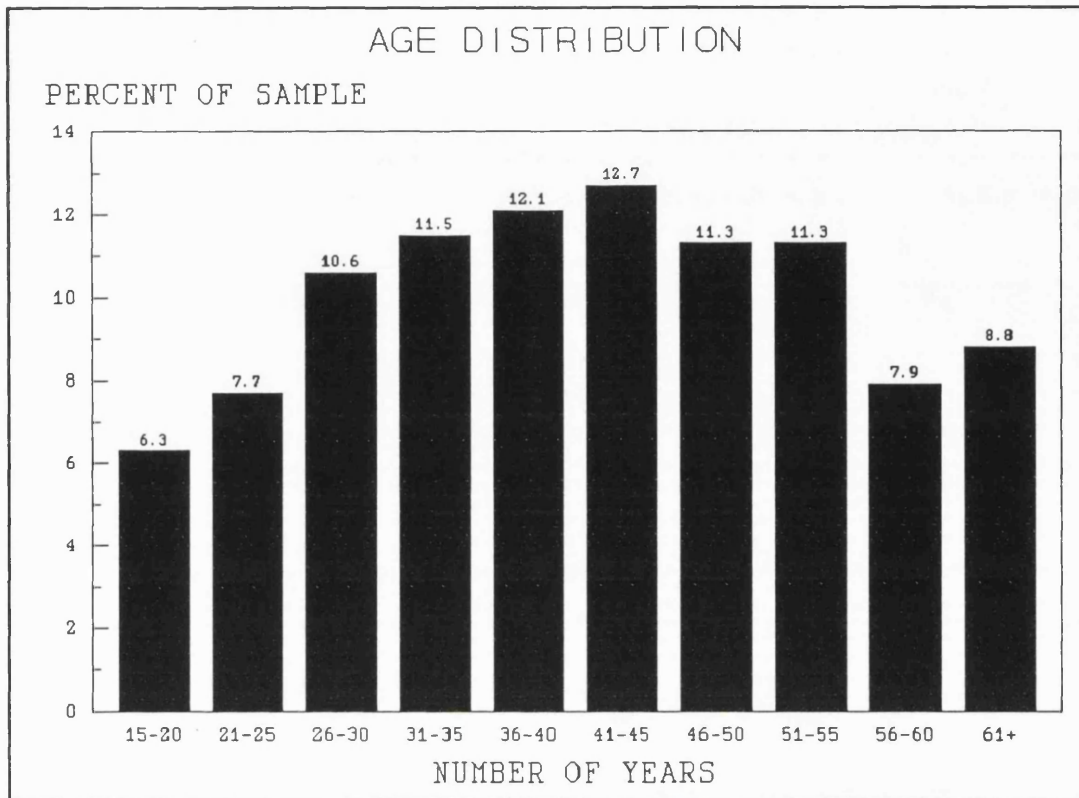
Figure 7.1. SAMPLING DISTRIBUTION ACCORDING TO THE AGE GROUPS
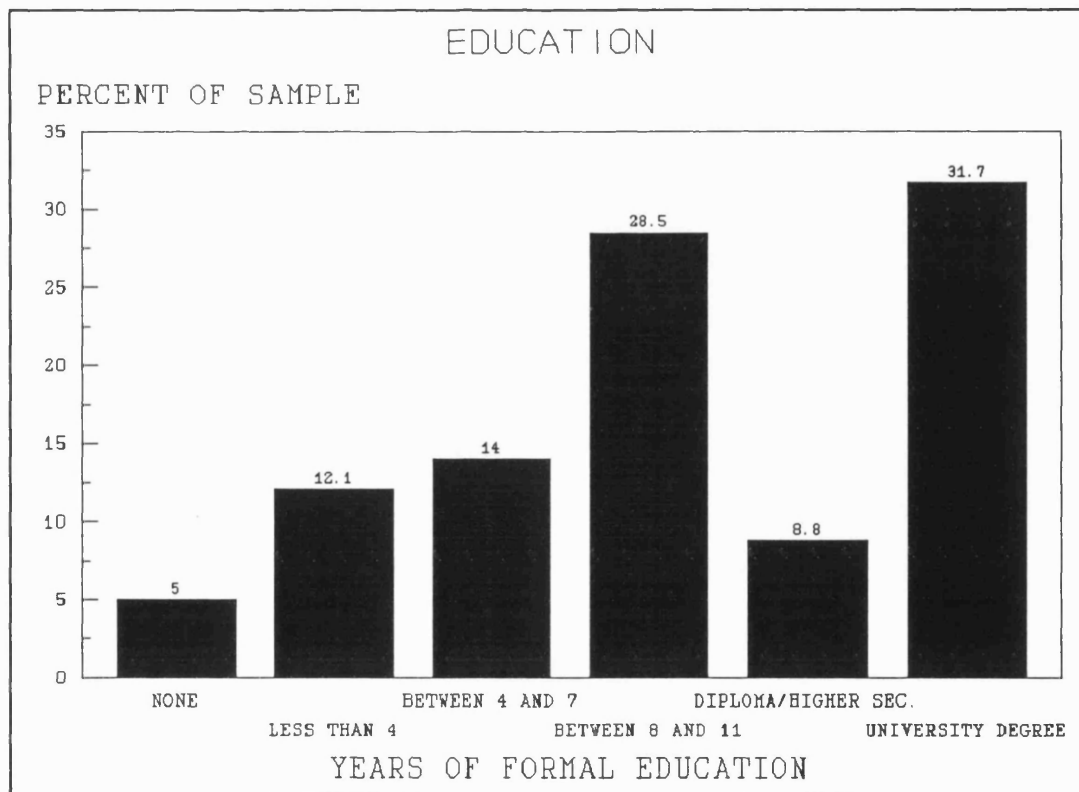
Figure 7.2. SAMPLING DISTRIBUTION ACCORDING TO THE NUMBER OF YEARS OF FORMAL EDUCATION
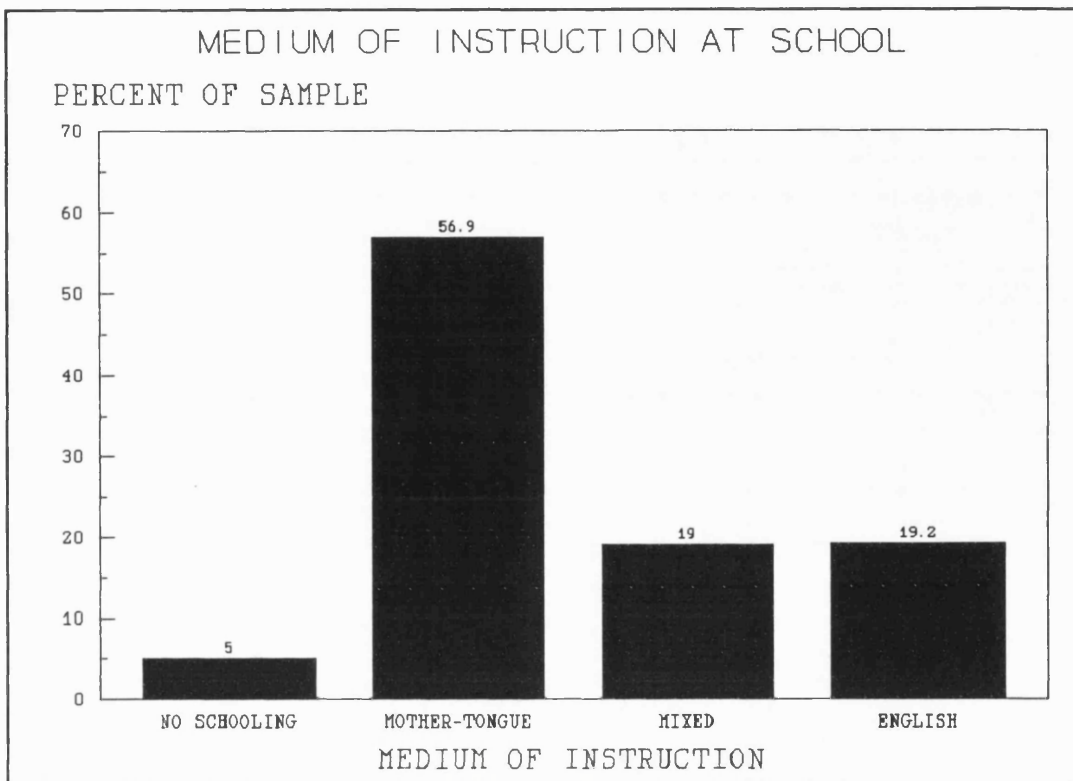
Figure 7.3. SAMPLING DISTRIBUTION ACCORDING TO MEDIUM OF INSTRUCTION AT SCHOOL
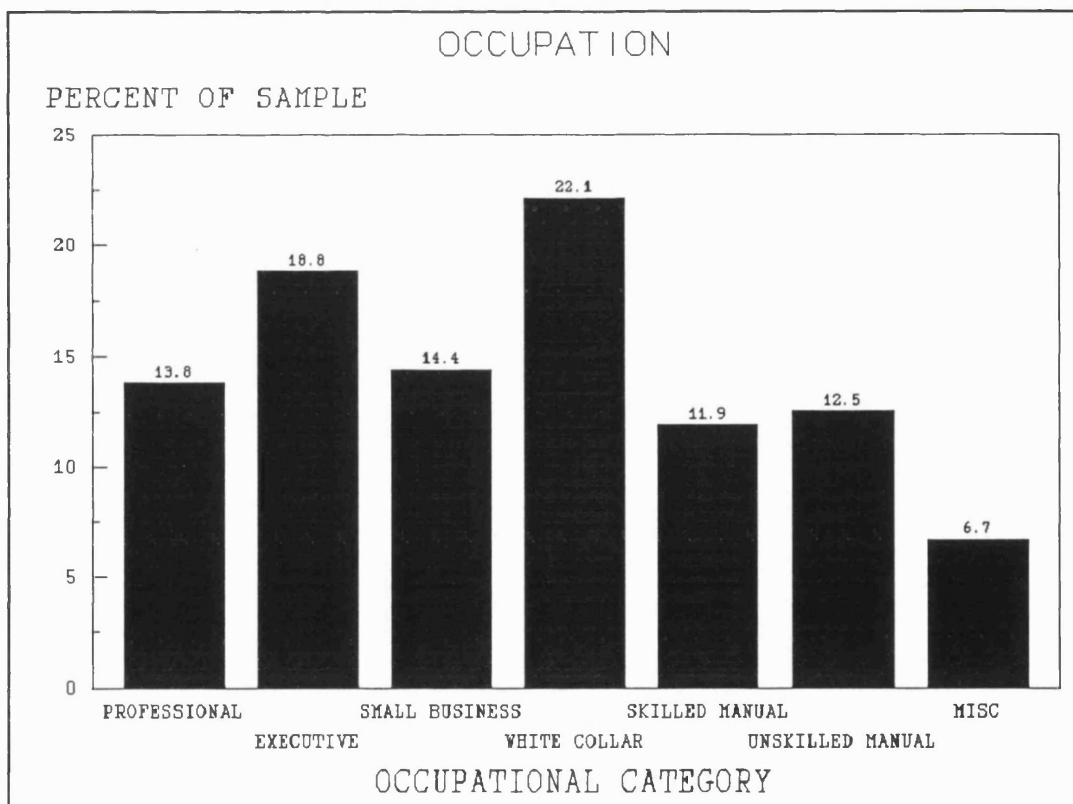
Figure 7.4. SAMPLING DISTRIBUTION ACCORDING TO OCCUPATIONAL LEVELS

education have been collapsed into a single category as well as those receiving less than 8 years of formal education.

Medium of Instruction at School: As can be seen from Figure 7.3, 60% of the total sample was educated in vernacular schools. The reminder were educated in either English or mixed medium schools. Due to smaller sample sizes, the English and mixed medium categories have been collapsed.

Occupation: Due to small numbers, Levels 7-9 (housewife, miscellaneous and unemployed) have been collapsed and termed miscellaneous. For GLM, three categories have been created by collapsing Levels 1-3 (professionals and independent businessmen) and Levels 5-7 (manual workers and miscellaneous). Level 4 (white collar workers) remained unchanged.

Prior Access to Allopathic and non-Allopathic Sources: It is important to examine the distribution of the total sample, in order to gauge the extent of accessibility of sources. As can be seen from Table 7.1, only 5% of the total sample did not have access to a regular source of care. Although another 12% did not have a family

Table 7.1. PRIOR ACCESS TO DIFFERENT TYPES OF FORMAL CARE (percentages)

	PRIOR ACCESS TO REGULAR SOURCES OF TREATMENT IN ADDITION TO FAMILY DOCTOR					
	NONE	ALLOPATHIC		NON-ALLOPATHIC	BOTH: ALLOPATHY & NON-ALLOPATHIC	ROW TOT
		ONLY SPECIALIST	G.P. & SPECIALIST			
FAMILY DOCTOR	20.8 N=100	21.2 N=102	10.8 N=52	25.4 N=122	4.8 N=23	83.1 N=399
NO FAMILY DOCTOR	5.2 N=25	1.1 N=5	6.0 N=29	0.8 N=4	3.8 N=18	16.8 N=81
TOTAL SAMPLE	26.0 N=125	22.3 N=107	16.8 N=81	26.2 N=126	8.5 N=41	100% N=480

doctor, they did have access to either Allopathic or non-Allopathic sources. Although access to non-Allopathic sources was lower compared to the Allopathic ones, 95% of the sample has access to some form of regular care prior to the onset of the illness under consideration. Moreover, nearly 30% of the total sample had access to both Allopathic family doctor and non-Allopathic practitioners. It is therefore safe to take assume that people of south Bombay have had access to some form of medical care, whether Allopathic or non-Allopathic, and availability in itself was never a problem.

7.3.2. RELATIONSHIP BETWEEN SELECTED EXPLANATORY VARIABLES

Despite a strictly controlled sampling frame, the variability in several explanatory variables as well as their interactions have not been controlled in the study. Some important indicators (e.g. age and gender; age and income; income and occupation; income and access) may be interdependent and correlated. The following section isolates and discusses the relationship between these variables and their possible impact on utilisation behaviour.

Age and Gender: Both age and gender are indicators of demographic variable (predisposing component). It is important to examine their joint distribution since it can affect utilisation behaviour. The gender-specific age distributions of the sample are displayed in Figure 7.5. The sharp differences between the distribution of males and females in two age groups, i.e 41-45 and 51-55, are not significant ($\chi^2=$ 11.73 p=.229 df=9). It is therefore safe to assume that association between age and gender is of little consequence.

Age and Income: Since income tends to generally increase with age, the sample distribution needs to be examined. The test of significance ($\chi^2=$ 18.02 p=.902
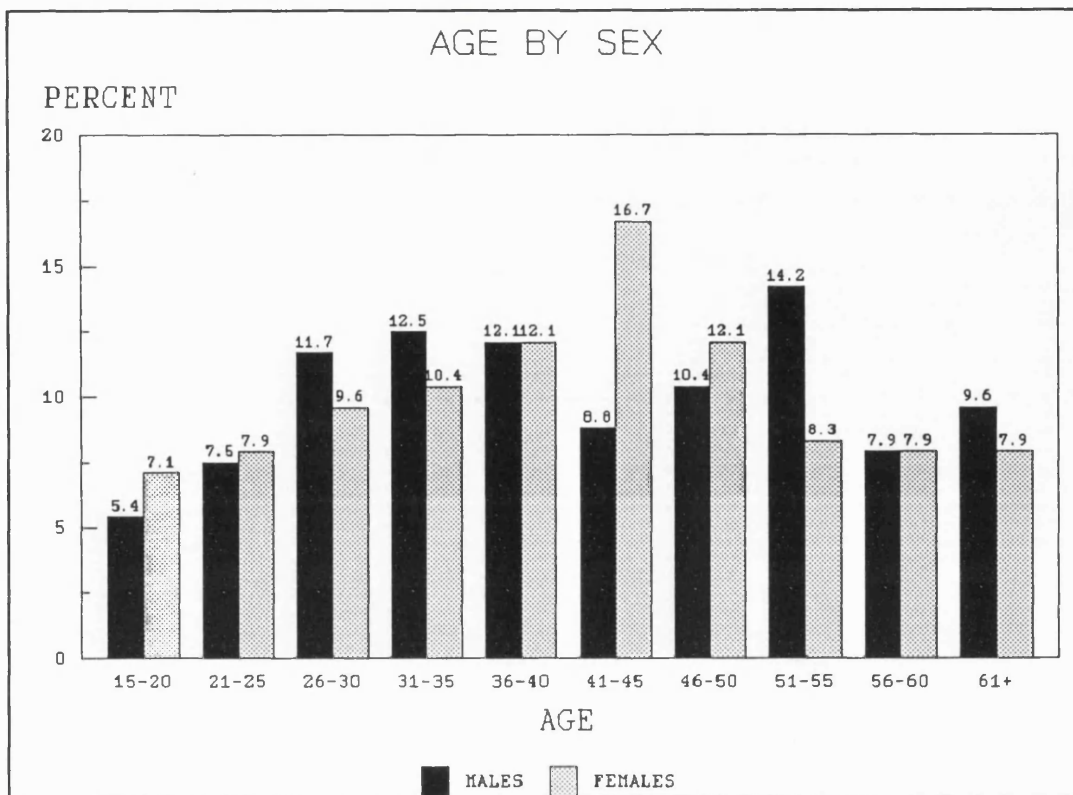
Figure 7.5. AGE DISTRIBUTION OF THE SAMPLE PER GENDER GROUP

df=27) as well as very weak Pearson correlation (r=.097) suggests that there is little association between age and income.

Age and Illness Type: Since differences in morbidity can affect utilisation, it is important to assess the age distribution of the sample for each of the illnesses. Figure 7.6 displays the collapsed age distribution of each of the illnesses included in the study. Different illnesses tend to be predominant in different age groups, it is therefore not at all surprising to find the serious (e.g. cancer) and chronic illnesses (e.g. diabetes, B.P.) prevalent mostly amongst the older age groups. The common illnesses (e.g. colds, jaundice), on the other hand tend to be frequent amongst the younger people. These differences are significant (χ^2= 130.31 p=.000 df=33) suggesting that differences in the utilisation behaviour across illnesses could be a result of the differences in health-status across age groups. Therefore, while
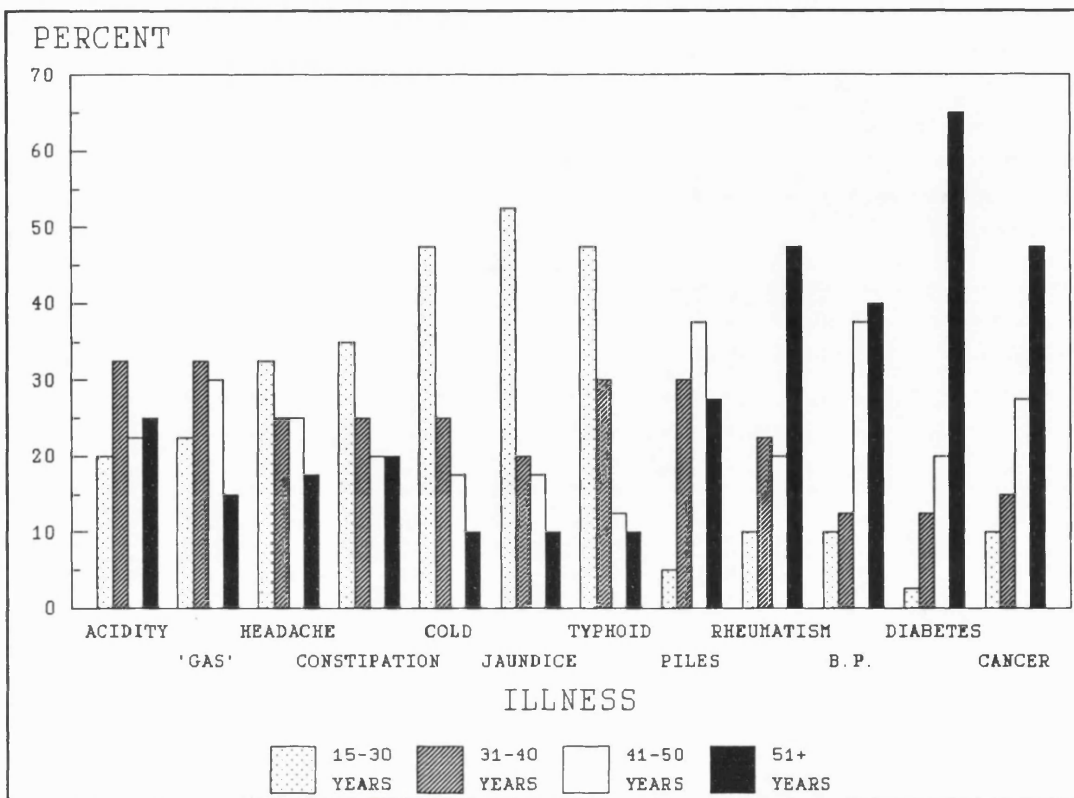
Figure 7.6. AGE DISTRIBUTION WITHIN EACH ILLNESS

developing GLMs, age should be controlled before entering illness type.

Education and Instruction: Until recently, the medium of instruction at the

Table 7.2. PERCENTAGES OF TOTAL SAMPLE ACCORDING TO EDUCATION AND MEDIUM OF INSTRUCTION AT SCHOOL (percentages based on total sample with formal education)

YEARS OF SCHOOLING	MEDIUM OF INSTRUCTION			
	MOTHER TONGUE	MIXED	ENGLISH	ROW %
less than 4	12.7 (n=58)	0	0	12.7 (N=58)
between 4-7	12.5 (N=57)	1.5 (N=7)	0.7 (N=3)	14.7 (N=67)
between 8-11	18.6 (N=85)	7.7 (N=35)	3.7 (N=17)	30.0 (N=137)
Diploma Higher Sec.	4.6 (N=21)	2.9 (N=13)	1.8 (N=8)	9.2 (N=42)
University	11.4 (N=52)	7.9 (N=36)	14.0 (N=64)	33.3 (N=152)
COLUMN %	59.9 (N=273)	20.0 (N=91)	20.2 (N=92)	100 (N=456)

university level in India was English. Even though universities offering tuition in vernacular languages are available in Bombay, they are small in number and less popular. Thus, students who have been through English-medium schools are more likely to enter and succeed in higher education. The results show that there is a strong association (χ^2= 120.81 p=.000 df=8) between educational qualifications and the medium of instruction at school. For example, although only 20% of the sample has had English as the medium of instruction at school, nearly 40% of those who have completed a university degree had their school education in English. Since both are indicators of the social structural variables, both variables will not be entered together while developing GLMs.

Education and Income: Both these variables are known to be highly correlated as higher education can increase the likelihood of getting better income and vice versa.

Table 7.3. PERCENTAGES OF RESPONDENTS WITHIN EACH INCOME GROUP ACCORDING TO EDUCATION

YEARS IN SCHOOL	INCOME LEVEL			
	UNDER Rs.1000	Rs.1000 -1999	Rs.2000 -4999	Rs.5000 or more
less than 4	25.0 (N=30)	9.2 (N=11)	8.3 (N=10)	5.8 (N=7)
between 4-8	18.3 (N=22)	20.0 (N=24)	7.5 (N=9)	10.0 (N=12)
between 8-11	27.5 (N=33)	38.3 (N=46)	29.1 (N=35)	19.2 (N=23)
Diploma/ higher sec.	8.3 (N=10)	10.8 (N=13)	11.7 (N=14)	4.2 (N=5)
University	5.0 (N=6)	20.0 (N=24)	42.5 (N=51)	59.2 (N=71)
COLUMN %	25.0 (N=120)	25.0 (N=120	25.0 (N=120)	25.0 (N=120)

The crosstabulated results based on total percentages are presented in Table 7.3. As anticipated, education and income are associated (χ^2= 149.40 p=.000 df=20). But the correlation is rather weak (τ_c= =.379). This is not unusual in Gujarati communities as many despite their basic educational

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qualifications are engaged in prosperous businesses. Another reason behind weak association is lower education levels amongst women and older age groups. Both education and income variables are retained for another reason. Not only are they indicators of different components and sub-components, they are some of the most frequently cited explanatory variables.

Income and Occupation: Income and occupation are known to be highly correlated. While occupation is an indicator of social structural variable (predisposing component), income denotes family and individual variables (enabling component). The crosstabulated results of the study are displayed in Table 7.4, and the *null hypothesis* that there is no association can be rejected (χ^2= 537.62 p=.000

Table 7.4. PERCENTAGES OF RESPONDENTS WITHIN EACH INCOME LEVEL ACCORDING TO OCCUPATIONAL CATEGORY

HUSBAND'S OCCUPATION	INCOME LEVEL			
	UNDER Rs.1000	Rs.1000-1999	Rs.2000-4999	Rs.5000 or more
Professionals	0 (N=0)	5.0 (N=6)	16.7 (N=20)	33.3 (N=40)
Executive & Industrialists	0 (N=0)	.8 (N=1)	16.7 (N=20)	57.5 (N=69)
Small Business	1.7 (N=2)	11.7 (N=14)	39.2 (N=47)	5.0 (N=6)
Service & White Collar	15.0 (N=18)	53.3 (N=64)	19.2 (N=23)	.8 (N=1)
Skilled Manual	27.5 (N=33)	19.2 (N=23)	.8 (N=1)	0 (N=0)
Unskilled Manual & misc.	55.8 (N=67)	10.0 (N=12)	7.5 (N=9)	3.3 (N=4)
Column Totals	25.0 (N=120)	25 (N=120)	25 (N=120)	25 (N=120)

df=20). Also, as expected, there is a significantly high positive correlation (τ_c= .6914 p=.000) with higher status occupations enjoying higher levels of income. This suggests that only one of these two indicators can be used while developing GLMs. It has been decided to use income as an indicator because of the lower number of levels and less ambiguity in measurement.

Income and Prior Access to non-Allopathic source: Prior access to non-Allopathic sources is not related to income ($\chi^2 =$ 2.78 p=.59 df=4). That is to say, although both are determinants of family and individual resource variables (enabling component), income is not a surrogate for prior access to non-Allopathic care and both can be included while developing GLMs.

Income and Prior Access to Allopathic source: The availability of a family doctor or a G.P. is used as an indicator of access to Allopathic source. The results suggest that there is an association between income and access to F.D ($\chi^2 =$ 110.89 p=.000 df=4). This suggests that income is a surrogate for prior access to Allopathic care and only one of them should be included while developing GLMs.

Prior Access and Belief in Efficacy of System: While prior access to both Allopathic and non-Allopathic sources is an indicator of enabling component, system

Table 7.5. PERCENTAGES OF RESPONDENTS WITH PRIOR ACCESS TO ALLOPATHIC AND NON-ALLOPATHIC CARE AND THEIR BELIEF IN EFFICACY OF THE SYSTEM

TYPE OF PRIOR ACCESS	SYSTEM PREFERENCE		ROW TOTAL
	NON-ALLOPATHIC	ALLOPATHIC	
ALLOPATHIC	10.4 (N=30)	89.6 (N=258)	100 (N=288)
NON-ALLOPATHIC*	79.0 (N=132)	21.0 (N=35)	100 (N=167)
NEITHER	80.0 (N=20)	20.0 (N=5)	100 (N=25)

*may have prior access to an Allopathic source in addition to the non-Allopathic one

preference reflects the psychological predisposition (belief variable) and it is necessary to examine their relationship. The results, displayed in Table 7.5 show that the null hypotheses, i.e. no association between access and preference can be

rejected (χ^2= 207.52 p=.000 df=2). This holds true even when people without

access to either of the sources have been excluded from the analysis. Although, as

discussed earlier, it is not possible to establish causal links between belief in efficacy

of a medical system and actual access. However, it is safe to say that psychological

propensity (measured as system preference) is also reflected in regular access to

sources providing that form of treatment.

Duration of illness and Illness Type: Although the time-span of illness was limited

to a maximum of five and minimum of one year, the utilisation behaviour may be

affected by the length of illness. Since the probability of using multiple sources is

likely to increase as the duration of an illness increases, it is important to examine the

their joint distribution. However, there was no significant association between illness

type and duration (χ^2= 5.8 p=.44 df=6). Since the illness of some of the cancer

and self-limiting illness patients had occurred within the year, these two groups were

excluded from the analysis. It is, therefore, not necessary to control for duration of

illness.

7.3.3. CONSTRUCTION OF NEW VARIABLES

INITIAL NATURE OF ILLNESS: Four indicators of perceived morbidity at onset,
namely the degree of seriousness, pain, worry and disruption to routine have been used. One factor solution was obtained with varimax rotation. The resulting correlations and item

Table 7.6. INTER-ITEM AND ITEM-TOTAL CORRELATION FOR INITIAL MANIFESTATION OF THE SYMPTOMS

	SERIOUS	PAINFUL	DISRUPT
PAINFUL	.4861		
DISRUPT	.5463	.4905	
WORRY	.6623	.4369	.6266
NATURE	.8253	.7365	.8388

NATURE=(SERIOUS+PAINFUL+DISRUPT+WORRY)/4

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total correlation called Nature, as shown in Table 7.6, are reasonably high.

Attitude to Shopping: A scale was constructed using the results of factor analysis on

six attitude statements (measured on a five point scale) which were judged to be

indicative of an individual's predisposition to use multiple sources.

A two factor solution was obtained with varimax rotation. Items 2,4,5,6

loaded on one factor whereas Items 1 and 3 loaded on the second factor[2]. The first

Table 7.7. INTER ITEM AND ITEM TOTAL CORRELATION: ATTITUDES TO MULTIPLE UTILISATION

NO	ATTITUDE STATEMENTS	ITEM NUMBER		
		2	4	5
2	DIFFERENT KINDS OF DISEASES HAVE DIFFERENT CAUSES, THEREFORE ONE HAS TO GO TO DIFFERENT PRACTITIONERS			
4	DEPENDING ON THE NATURE OF THE ILLNESS, ONE SHOULD TAKE ALLOPATHIC OR NON-ALLOPATHIC MEDICINES	.67		
5	ONE SHOULD CHANGE THE TYPE OF TREATMENT WHEN IT FAILS TO CURE (e.g.IF ALLOPATHY FAILS, GO TO *AYURVED*)	.59	.64	
	ITEM TOTAL	.87	.88	.84

ITEM TOTAL=ITEMS (2+4+5)/3

factor accounted for 42% of the variance whereas the second accounted for 18% of

the variance. Therefore, only Items 2,4,5 were retained in the final construction of

the scale. Item 6 was exclude in the final scale to be used since it was poorly

correlated with rest of the items (pearson's r between .17 and .28). The resulting

correlations and item total correlation, as shown in Table 7.7, are reasonably high.

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[2]Items 1 ("All diseases are curable if 'suitable' medicines can be found") and 3 ("It is very important that any attempts to cure a person should treat him as a whole and not just the affected parts, since treating the parts or the symptoms does not remove the illness from the roots) were included in the questionnaire as they are considered to be associated with multiple usage in India. Since these items are not directly related to multiple usage it is not surprising to find that they formed a separate factor.

Illness Type: As mentioned in chapter 5, it is necessary to group illnesses with similar characteristics so that the findings of the study can be abstracted and generalised to illnesses other than those included in the study. In order to achieve this objective, perceptions of respondents' specific illnesses were gathered using 14 attitudinal statements based on 5 point ordinal scale[3]. The similarities between these responses were standardised and used to cluster illnesses (i.e. Q-analysis).

As a first step, items 1,3,6,7,9,10,12,14 were reversed so that consistency of direction could be maintained. Then, a similarity matrix was computed using the Average Euclidean Distance coefficient since the data set was measured on an ordinal scale. The cluster analysis was carried out using the complete linkage method. The solution is displayed in Figure 7.7.

The resulting solution, suggests that the illnesses could be clustered as follows:

```
                                C
                                O
                R               N
                H               S
                E       J   D   T   H
                U   T   A   I   I   E               A
        C   M   Y   U   A   P   A               C
        A   A   P   P   N   B   A   D   C   I
        N   T   I   H   D   E   T   A   O   D
        C   I   L   O   I   T   I   C   L   G   I
        E   S   E   I   C   E   B   O   H   D   A   T
        R   M   S   D   E   S   P   N   E   S   S   Y
   1    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
   2    X   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
   3    X   XXXXXXXXXXXXXXXX   XXXXXXXXXXXXX
   4    X   XXXXXXXXXX   XXXX   XXXXXXXXXXXXX
   5    X   XXXX XXXX   XXXX   XXXXXXXXXXXXX
   6    X   XXXX XXXX   XXXX   X   XXXXXXXXXX
   7    X   XXXX XXXX   XXXX   X   X   XXXXXXX
   8    X   X X XXXX   XXXX   X   X   XXXXXXX
   9    X   X X XXXX   X X X   X   XXXXXXX
  10    X   X X XXXX   X X X   X   X   XXXX
  11    X   X X X X   X X X   X   X   XXXX
```

Figure 7.7. VERTICAL ICICLE PLOT

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[3]Items 1, 3-15 on pages 431-4 of the questionnaire. These referred, respectively, to the extent to which the illness is common, infectious, serious, painful, fatal, sudden onset, easy to prevent, personally known, disruptive, easy to cure, worrying, costly, lengthy, and leads to full recovery.

CLUSTER 1: cancer

CLUSTER 2: **self-limiting illnesses:**   jaundice and typhoid

CLUSTER 3: **serious-chronic illnesses:**   B.P. and diabetes

CLUSTER 4: **non-serious chronic illnesses:**   piles & rheumatism

CLUSTER 5: **common illnesses:**   acidity, 'gas', headache, colds and constipation.

These clusters were almost similar to the categories identified at the time of the pilot-study. The only difference being that whereas in the pilot-study cancer was categorised as a serious illness together with B.P. and diabetes, here it forms a separate cluster. It is not difficult to understand why the cancer patients perceived their illness differently from the other patients. This is, perhaps, because cancer stands out as the most serious, costly yet at the same time a terminable illness. This corroborates the sorting-task results obtained during the pilot-study. Nearly 28% of the sample preferred to sort illnesses into five groups as obtained here. Another 14% had sorted into four groups by combining cancer with B.P. and diabetes.

The results also point to appropriateness of labelling of illness types. The sample means for each category of illness are displayed in Table 7.8. As can be seen, common illnesses were perceived to be least serious, disruptive and costly, routinely experienced ("almost everyone gets it" and "most people I know have got it"), easy to prevent, and having a high probability of total recovery. In contrast, the serious-chronic illnesses (including cancer) were perceived to be very serious, fatal, disruptive, expensive, least common, difficult to prevent. The perception of non-serious chronic illnesses are more similar to common illnesses than their serious counterparts. The self-limiting illnesses, on the other hand, are perceived to be marginally more serious, life-threatening, worrying and disruptive than the common

Table 7.8. PERCEPTION OF EACH ILLNESS TYPE: BASED ON SAMPLE MEANS FOR EACH ITEM

	ILLNESS TYPE				
	COM MON	JAU TYP	PIL RHE	B.P DIA	CAN CER
1=ALMOST EVERYONE GETS IT; 5=ALMOST NO ONE	2.1	2.7	2.9	2.5	3.6
1=EXTREMELY INFECTIOUS; 5=NOT AT ALL	4.5	3.7	4.9	5.0	4.9
1= NOT AT ALL SERIOUS; 5=EXTREMELY	2.3	3.4	3.0	3.5	4.4
1= NOT AT ALL PAINFUL; 5=EXTREMELY	3.2	3.2	3.8	3.0	4.3
1=ALMOST ALWAYS FATAL; 5=ALMOST NEVER	4.4	3.4	4.5	2.4	1.8
1=VERY SUDDEN ONSET; 5=VERY GRADUAL	3.0	2.6	3.6	2.7	2.3
1=VERY EASY TO PREVENT; 5=VERY DIFFICULT	2.8	3.2	3.1	3.4	4.6
1=MOST PEOPLE I KNOW HAVE GOT IT; 5=NONE	2.1	2.7	3.0	2.3	4.1
1=TOTALLY DISRUPTIVE; 5=NOT AT ALL	3.1	1.4	2.2	3.0	1.7
1=VERY EASY TO CURE; 5=VERY DIFFICULT	3.0	3.0	3.6	3.7	4.5
1=LOT OF WORRY; 5=NO WORRY	3.1	2.0	2.1	2.2	1.1
1=VERY CHEAP TREATMENT; 5=VERY EXPENSIVE	2.2	2.7	2.9	2.9	4.6
1=VERY LENGTHY TREATMENT; 5=VERY SHORT	2.9	2.8	2.2	1.7	2.2
1=FULLY RECOVER; 5=NEVER FULLY RECOVER	1.7	1.4	2.0	3.1	3.2

illnesses. At the same time, the chances of complete recovery from self-limiting illness were higher than other illnesses.

7.3.4 USE OF FORMAL SOURCES: A BRIEF NOTE ON PUBLIC AND PRIVATE SECTORS

Since the following chapters will discuss the use of three formal systems without distinguishing whether the source of care originated in Public or Private Sector, a short note on the latter is in order. On the whole, the Private Sector appears to be overshadowing the Public Sector as far as relative use is concerned. Only 22% of those using hospital-based care resorted to Public Sector hospitals. The respondents (including the poor) cited various medical and non-medical reasons for preferring the Private Sector. The quality of care provided by the Private sector was

considered to be far superior to the one provided by the Public Sector for various reasons. Being client-oriented, the Private Sector caters to the varying needs of the ill population. The shortcomings of the Public Sector have boosted the popularity of the Private Sector. Various factors like deficiencies in organisation (impersonal, bureaucratic, inefficient), and lack of funds, poverty, disinterested personnel, identification of health care services with interference and pressures from authority (e.g. birth control) were cited. On the whole, the Public Sector appears to be the second choice for both patients and staff.

7.3.5 USE OF NON-FORMAL SOURCES: A BRIEF NOTE

Since the non-formal sources (Popular and Sacred) assume secondary importance, the chapter 8 and 9 fail to elaborate on their use. In addition, the uniqueness of the Sacred sources as a supplementary treatment option demands special attention. As a result, a separate section dealing with the medical role of the Popular and Sacred sources has been added here.

7.3.5.1. POPULAR AND FOLK SOURCES

Nearly 7% of the total sample preferred to rely exclusively on the Popular sources for treatment. Since the use of popular sources in general will be discussed at length in subsequent chapters, the following only concentrates on the specific use of certain forms of popular and folk care.

YOGA: The Yogic treatment was resorted to by 11% of the total sample either on their own or on advise of their doctor. Yoga was considered to be particularly useful for controlling, curing or preventing further deterioration in the current level of ill-health in various stress disorders like B.P. and chronic illnesses like headaches, colds, rheumatism. However, it was used almost exclusively by upper income

groups (Rs.5000 and over). As noticed during the pilot-study, amongst this section of the population it was considered fashionable to attend yogic centres in the morning for preventive care in general. Despite the availability of cheap treatment from charitable centres, Yoga is not popular amongst the poorer sections of the community for prevention and cure. They seemed to be either unaware or sceptical.

NATUROPATHY AND OTHER FOLK SOURCES: Like Yoga, Naturopathy was popular amongst the elite who can not only afford to be on a diet of fruits and vegetables but also spend working-days undergoing expensive treatment. About 14% of the sample resorted to naturopathic treatment especially for conditions like constipation, piles, rheumatism. Certain forms of non-formal treatments like *shivambu* and Acupressure were more popular than others like magnet therapy. It was interesting to find that *shivambu* was used by 23% of the cancer patients and many considered it to be an effective therapy for their illness. Some of them have not only incorporated it in their daily prevention rituals, but have become active in popularising the therapy.

7.3.5.2. USE OF SACRED SOURCES

The use of sacred sources was unlike that of its formal and Popular counterparts. They were used frequently to supplement other sources but never independently. As a result, the above discussion failed to reflect the extent of their use. Due to their unique position in the medical sphere, it is important to examine how and when they are used. The results point to both individual and illness differences.

The proportion of sacred users seem to increase with the severity of illness (χ^2=72.9 p=.000 df=11). Whereas 68% of the total cancer patients and
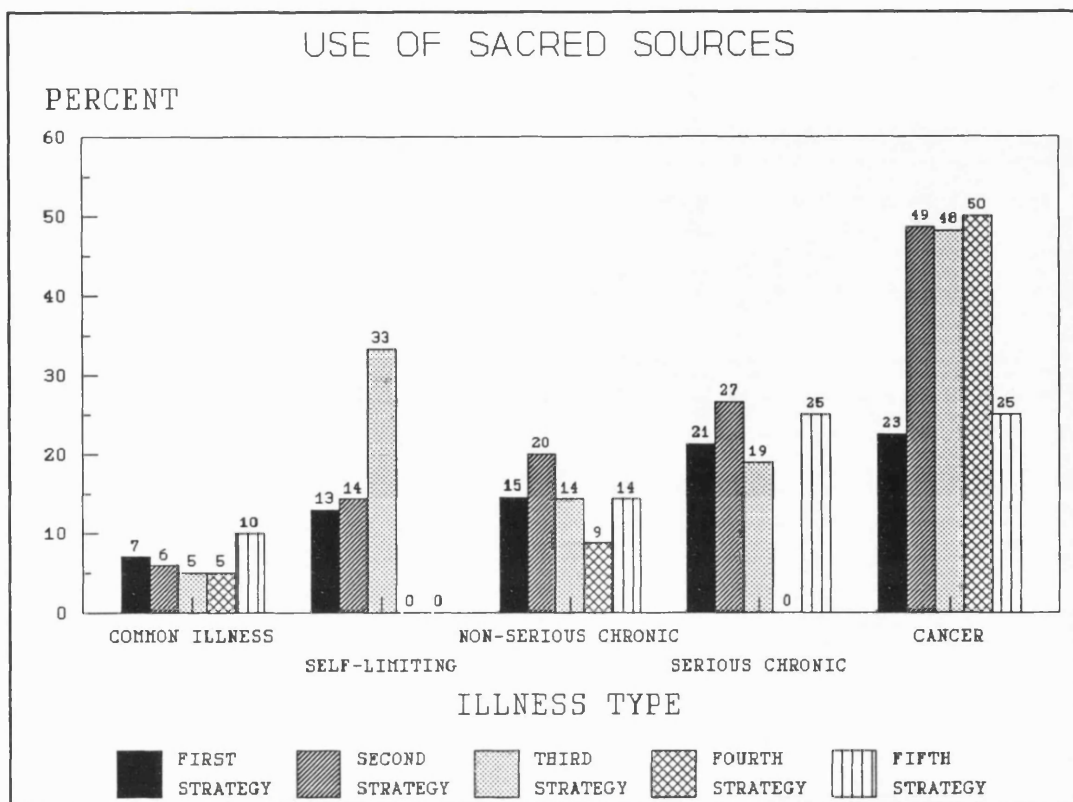
Figure 7.8. PERCENTAGES OF RESPONDENTS USING SACRED SOURCES DURING VARIOUS TREATMENT STRATEGIES IN EACH OF THE ILLNESS TYPES

approximately a third of the serious-chronic illnesses (33% of B.P. and 30% of diabetes) supplemented their treatment with sacred sources, only 3% did so in the cases of constipation. Given the gravity of the situation, it is not surprising that the majority of the cancer patients turned to supernatural intervention to fortify the human endeavour. As can be seen from Figure 7.8, the proportion of sacred users increased with the number of stages in common and self-limiting illnesses. This is perhaps due to the difficulties in controlling the illnesses and the resulting frustration. This, in turn, increases the need to use all available means to effect a recovery. It may initially appear strange that the use of supernatural sources in non-serious illnesses (piles and rheumatism) was not substantially lower compared to serious-chronic illnesses. This is partially due to the fact that the majority of the piles patients who opted for surgical removal sought various types of sacred sources for

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successful outcome.

Individually based variables like social structural and enabling are also significantly associated with the use of sacred sources. It seems that low education, income and occupational level increase the likelihood of using these sources. Nearly 63% of those without any formal schooling and 36% of the manual workers used these sources compared to only 9% of the university graduates and 12% of the professionals. Similarly, while one out of two people in the lowest income bracket (family earnings less than Rs.500 per month) used sacred sources, one out of eight people from the upper-middle class (earning between Rs.2000-5000 per month) and one out of six from the upper class (Rs. 5000 and above a month) do so. However, the demographic variables (age, gender) were not significantly related to use. Although women (25%) compared to men (20%), and older compared to younger used these sources more, the differences were not statistically significant.

To sum up, an important but not surprising result is the medical role of the magico-religious sources. Although the role played by religion may have changed over the centuries but, as the results based on the study highlight, it continues to be an important source of supplementary health-care in a modern city. An illness situation poses cognitive problems for the sufferer and onlookers alike. Not only is it necessary to maintain optimism and faith, it is equally necessary to answer questions like "why do I have a particular illness?". Satisfactory answers to such questions go beyond the scope of most rationalist medicine. The role played by religion and the eclectic sources comes into prominence when such fundamental and existential questions need to be answered. And it becomes exceptionally vital as the complexity and seriousness of an illness increases. The meta-physical principles (like *dharma,*

karma) help in rationalising and resolving such problems. The treatment, its pace and outcome also poses similar cognitive and emotional problems. Since human beings are considered to have limited capacity to treat an illness, diseases cannot always be treated successfully and the treatments which are known to be successful can often fail. It is therefore seen as necessary to supplement human endeavour with help from supernatural forces. This is evident from use of a variety of sources specialising in the supernatural intervention by more than one in five persons in the total sample.

SUMMARY

The aims of this small-scale study are both substantive and exploratory and it is therefore not surprising to encounter severe problems regarding sampling, data collection techniques and accuracy of responses in such a study. Although, some questions of accuracy pertaining to the study can still be raised, attempts have been made to reduce the nature and extent of bias by adopting suitable analysis strategy.

CHAPTER 8
RESULTS: PART I
UTILISATION BEHAVIOUR: A DECISION-MAKING PROCESS

8.1. INTRODUCTION

This chapter addresses the first objective of the study, i.e. **how** do individuals

or groups make treatment related decisions. It is based on the premise that,

utilisation behaviour is a process involving a series of decisions. The resulting

treatment stages, each with its distinctive characteristics and events, provide a crucial

insight into the dynamics of utilisation behaviour. This has been captured by

addressing the following issues:

1. Utilisation is a decision-making process comprising the first and subsequent

    strategies. A variety of events and actions are associated with each of these

    strategies.

2. The individuals revise their treatment strategies by selectively adding,

    replacing and discontinuing certain sources. They continue to make these

    adaptations to their treatment strategies until they recover totally or do not feel

    the necessity for revising the current combination of sources.

3. These alterations are made in response to regular evaluations based on the

    changes in illness, feed-back from previous strategy, expectations from new

    strategy, and advice from the lay group.

4. The individuals do not use different sources of care at once but adopt a

    sequential strategy. These revisions in treatment strategy produce different

    patterns of utilisation. One of the major aim of the study is to conceptualise

    the process of utilisation behaviour in terms of these patterns and attempt to

    understand how they are formed.

The following is an attempt to build a model of stages of utilisation behaviour based deductively on the empirical results obtained from the study. It attempts to delineate its intricacies by partially drawing on Suchman's and Igun's models for looking at the succession of events within the utilisation process and related decisions. However, unlike their models and associated studies, the utilisation process presented here controls for the differences between illnesses. In order to stress the importance of recognising these differences in a utilisation study, wherever possible, it contrasts illness-specific results with those of the whole sample.

The chapter begins by temporally ordering the events and actions associated with various treatment strategies. This is followed by a descriptive analysis of this progression of unfolding events, how they are structured internally as well as across various stages, and different types of illnesses. In order to highlight the sequential nature of the process of utilisation, the following presentation adheres to the actual unfolding of the events rather then the specific hypothesis-testing format.

8.2. STAGES OF UTILISATION BEHAVIOUR: AN OVERVIEW

As discussed in chapter 5, utilisation behaviour is a linear process comprising several intermediary stages. Both the duration and the activities within each stage vary since stages are both illness and individual specific.

Listed below is the descriptive account of the sequential events and actions associated with utilisation behaviour. These stages span the transition from health to illness and back to accepted level of health. The stages, as discussed in chapter 6, are demarcated by the decision to change the treatment strategy. To recapitulate, a revision in the current treatment strategy as a result of any addition, reduction or replacement of sources is deemed to be a new stage of utilisation.

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FIRST STAGE OF UTILISATION BEHAVIOUR

Phase I. Pre-utilisation

(i)   symptomless latent condition

(ii)   symptoms which are not specific or pronounced

(iii)   perception of something wrong as a result of symptom manifestation

(iv)   symptoms pose a problem, leading to anxiety and a need to identify, label and diagnose the illness

(v)   attribution of cause and initial evaluation of illness characteristics

Phase II. Lay Utilisation

(vi)   decision to act: self medication and use of Popular sources

(vii) communication to others

(viii) preliminary assumption of sick-role

(ix)   lay referral or suggestion of other sources

(x)   evaluation of treatment and expectancy of cure

Phase III. Professional Utilisation

(xi)   decision to seek professional care

(xii) reassessment of illness, confirmation of sick-role

(xii) simultaneous use of other sources

(xiii) evaluation of treatment leading to recognition of

      a)   total recovery, i.e. no need to resume treatment in future, or

      b)   stable or tertiary state i.e. continue with the same treatment strategy without any revisions, or

      c)   partial or no recovery and no expectation of future recovery with the present treatment, i.e. need to revise the treatment strategy

SUBSEQUENT STAGES OF UTILISATION BEHAVIOUR

(xiv) addition, reduction or replacement of sources used in the previous treatment strategy by those who perceived a partial or no recovery

(xv)   evaluation of the revised treatment strategy leading to perception of total recovery, stable state, partial or no recovery, as in (xiii)

(xvi) repeat (xiv to xvi) until decision to withdraw is taken as a result of total recovery or stability in treatment

The following is a discussion of these treatment strategies and phases. It should be noted that the utilisation stages listed above are intended to cover a wide range of illnesses. The sequence therefore cannot be universally applied since neither the individual nor the unfolding of the illness follow a standard order. These qualifications will become meaningful from the discussion of the results.

8.3 FIRST STAGE:DECISION TO SEEK PROFESSIONAL CARE

Every form of utilisation behaviour commences with the perception of ill-health and the need for remedial action. This marks an individual's entry into the first stage of utilisation. Essentially, this stage is characterised by three phases, namely, the pre-utilisation, lay and professional utilisation phase. In other words, it marks the transition of a healthy individual into a patient.

8.3.1. PRE-UTILISATION PHASE: ILLNESS MANIFESTATION AND IDENTIFICATION

This is the most elementary phase and consists of physical, cognitive and emotional elements which influence the decision to seek care. It primarily deals with the question "What has happened?". This is analogous to the "symptom experience stage" mentioned by Suchman (1965) and Igun (1979) as well as the "illness recognition and labelling stage" described by Fabrega (1973).

Essentially during this phase, the physical discomfort accompanying the symptoms is noticed and attempts are made to understand and identify their causes. Decisions about whether or not to seek care and the type of treatment, are made at this juncture.

The perception of poor health as a result of the changes in bodily appearance (e.g. skin colour) or function (e.g. bowel movement) is characteristic of this phase and forms a basis for initiating treatment actions. However, the perception of ill-

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health is not always instantaneous in all cases. It is not unusual that people are sometimes totally unaware of their ailment in the absence of any apparent symptoms; this is the **symptomless latent condition** period of an illness. For example, several cancer patients expressed their shock on learning that they had contracted cancer when "there was no apparent indication".

Often the manifestation of symptoms was very **slow and not pronounced.** There was a gradual but not necessarily a discernible deterioration in health. As a result it was not easy to perceive the nature and extent of the problem. In this study, some respondents (19%) - including those suffering from illnesses like cancer and B.P. - reported that they decided not to use medicines since they were experiencing nothing more than occasional discomfort or slight pain. They eventually became concerned only because of "persistence", "irritating characteristics" of the symptoms, "frequent disruptions", "reappearance of symptoms within shorter time period", "accumulation of several symptoms" etc.

But more often, the manifestation of symptoms is **pronounced** from the onset, and the individuals immediately interpret these symptoms as **indicative of an illness.** Acute physical pain or discomfort and severe or sudden deterioration in health, (i.e. the physical element) were the most frequently cited early signs of the impending illness. This will be discussed at length after dealing with the remaining two elements of the stage, namely the cognitive and emotional responses.

As symptoms began to manifest, individuals began questioning "Why has it happened to me?" and "why now?". This lead them to attach meaning and **attribute causes** (i.e the cognitive element). The results presented in Table 8.1 highlight two facts. The first refers to the multi-causal attribution. Despite being encouraged to

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select one category, four out of five individuals (81%) felt that more than one causes were acting together. Secondly, most illnesses were seen as an outcome of their irresponsibility. This is evident from the fact that certain categories of causes were ascribed greater prominence than others. For example, the most frequently cited explanation of all illness types referred to irregularity in daily routine and faulty dietary habits. That is to say, etiology is viewed largely in terms of factors over

Table 8.1. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE ATTRIBUTING THEIR ILLNESS TO VARIOUS CAUSES

	TOTAL SAMPLE %	ILLNESS TYPES				
		COM MON	JAU TYP	PILE RHEU	B.P DIAB	CAN CER
CHANGE OF SEASON	17.3	**26.0**	18.8	7.5	11.3	2.5
HEREDITY	10.6	13.5	0	11.3	**17.5**	2.5
'PRAKRITI'	14.2	**22.5**	0	13.8	11.3	7.5
'TRI-DOSHA'	8.1	**11.0**	7.5	5.0	3.8	10.0
VIRUS,INFECTION	10.8	6.0	**41.3**	1.3	2.5	10.0
STRESS & WORRIES	26.0	28.5	10.0	22.5	<u>46.3</u>	12.5
IRREGULARITY IN DAILY ROUTINE	34.2	**37.5**	33.8	32.5	33.8	22.5
FAULTY DIETARY HABITS	41.0	<u>42.5</u>	<u>48.8</u>	<u>51.3</u>	23.8	32.5
LACK OF HYGIENE	3.3	1.0	**13.8**	2.5	0	2.5
NEGLECT	19.6	17.0	**25.0**	23.8	18.8	15.0
SUPERNATURAL (FATE/EVIL EYE)	3.1	3.0	0	**7.5**	3.8	0
CITY LIFE	15.6	18.5	8.8	12.5	**23.8**	5.0
OLD AGE	10.0	6.0	0	18.8	15.0	**22.5**
LACK OF EXERCISE	18.3	20.0	1.3	**28.8**	27.5	5.0
LONG EXPOSURE TO HOT/COLD WEATHER	12.9	13.5	13.8	**17.5**	8.8	7.5
OTHER	13.8	10.0	2.5	20.0	8.8	<u>52.5</u>

Percentages based on proportion of positive responses for each causal category for each of the illness types
TOT based on proportion of the total sample referring to the given cause, i.e. irrespective of the illness type
Bold denotes the highest row percentage
<u>Underline</u> denotes highest column percentage
KEY: JAU,TYP= self limiting (jaundice, typhoid)
           PILE,RHEU= non-serious chronic (piles, rheumatism)
           B.P.,DIAB= serious chronic (B.P., diabetes)

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which the individuals have greater control rather than the ones which are perceived to be beyond their control like the hereditary proneness (e.g. *prakriti*) or environmental agents (e.g. changes in weather, excessive exposure). This is as much a reflection of the types of illnesses chosen in the study as the modern urban context. Similarly, the attribution of illness to supernatural causes (e.g. fate, evil eye) is not as common as those of natural origins (e.g. bad dietary habits). Only 3-8% of the illnesses were explained in terms of such supernatural causes. This proportion is much lower than what some of the anthropological studies have observed. This is probably due to the inroads of modern science coupled with pragmatic considerations which lead people to look for tangible explanations of illness. Therefore illnesses like B.P. and diabetes are attributed to psychosomatic causes (like stress, irregularity of routine) whereas jaundice and typhoid are believed to be caused by micro-organisms or unhygienic conditions. Similarly, non-serious illnesses (chronic and common) are attributed to diet, irregularity, lack of exercises rather than viral infections or lack of hygiene. The causal attributions of nearly half of the cancer patients belonged to "other" category since they attributed their initial symptoms like soreness of throat to smoking, bleeding gums to toothache, skin rash to washing practices.

The manifestation of symptoms leads to concern. The degree of seriousness, pain and disruptive effect of the initial symptoms **arouses anxiety** (i.e. emotional component). As one would expect, there was a reasonably high positive correlation between the extent of worry and nature of symptoms like seriousness ($r=.67$), disruption ($r=.63$) and moderate correlation with pain ($r=.44$). The more serious the symptoms, the more they disrupted the routine activities and increased anxiety. As expected there were differences between illness types and the extent of initial

worry (χ^2=102.6 p=.000 df=16). That is to say, the initial manifestation of

serious illnesses was equally serious and vice versa. And this was reflected in the

Table 8.2. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING DIFFERENT LEVELS OF WORRY CAUSED BY THE INITIAL SYMPTOMS

LEVELS OF WORRY	ILLNESS TYPE				
	COMMON	JAUNDICE TYPHOID	PILES RHEUMATISM	B.P. DIABETES	CANCER
EXTREMELY	0	6.3	3.8	3.8	**15.0**
VERY	10.0	**32.5**	17.5	27.5	27.5
MODERATELY	27.5	41.3	37.5	**47.5**	27.5
HARDLY	34.0	14.5	32.5	15.0	20.0
NOT AT ALL	**28.5**	2.5	8.5	6.3	10.0

Bold denotes highest row percentages

corresponding increase in the anxiety level (Table 8.2). In addition, the extent of

worry is correlated with predisposing variables. It is negatively correlated with all

three measures of social structural variables, i.e. education (r=17 p=.001),

occupational level (τc=.08,p=.01) , westernisation measured by English as medium

of instruction at school (τc=.07,p=.04) . That is to say, increase in the social status

of the person leads to corresponding decrease in the anxiety level. Other

predisposing and enabling variables were not significant. However, men, upper

income and older age groups appeared to be less worried than their counterparts.

Higher level of anxiety almost always resulted in immediate resort to

professional care, thereby skipping the lay utilisation phase (χ^2=66.8 p=.000

df=4). As displayed in Table 8.3, the majority of those who were very worried,

sought professional care immediately on noticing the symptoms. Nearly 83% of

those suffering from cancer and 61% suffering from serious illnesses (B.P. and

Table 8.3. PERCENTAGES OF RESPONDENTS IMMEDIATELY RESORTING TO PROFESSIONAL CARE WITHIN EACH ILLNESS TYPE AND THEIR REPORTED LEVELS OF WORRY

	COMMON N=12	JAUNDICE TYPHOID N=43	PILES RHEUMATISM N=10	B.P. DIABETES N=21	CANCER N=12
EXTREMELY OR VERY	50.0	41.9	50.0	60.9	**83.3**
MODERATELY	16.7	39.5	**40.0**	28.6	
HARDLY OR NOT AT ALL	**33.3**	18.6	10.0	9.5	16.7

Bold denotes highest row percentages

diabetes) who rushed to a professional, reported being very anxious.

The perception of illness, precipitated by anxiety results in **a need to identify** the illness, its likely course, prognosis and outcome. In this sample, 58% reported that they could accurately identify their illness on the basis of the symptoms during this phase. However, all illnesses cannot be diagnosed to an equal degree (χ^2=242 p=.000 df=11 and χ^2=198.8 p=.000 df=4). As can be seen from Table 8.4, common illnesses can be easily diagnosed. Serious illnesses like diabetes, B.P., cancer are difficult to identify as their symptoms tend to be disguised and are likely to mislead the diagnosis. It is, therefore, not at all surprising that typhoid was almost as difficult to diagnose (10%) as cancer (13%) since high temperature was mistaken for common influenza. The deceptive nature of these otherwise serious illnesses is evident from the choice of inappropriate sources, like the Home Remedies and Over The Counter (OTC) preparations, as in the case of 73% of the cancer patients and 80% of the diabetic patients. Nor is it surprising that more people could correctly identify jaundice since its specific symptoms such as yellow urine were clearly

Table 8.4. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS WHO ACCURATELY IDENTIFIED ILLNESS AT THE ONSET

COLD		100%
HEADACHE		97%
CONSTIPATION	90%	90%
'GAS'		87%
ACIDITY		75%
JAUNDICE	34%	58%
TYPHOID		10%
PILES	69%	92%
RHEUMATISM		45%
B.P.	17%	18%
DIABETES		15%
CANCER	13%	13%

visible. Apart from illness type, accurate identification of illness was positively associated with educational attainment of the ill person ($\tau c=.19$ and $\chi^2=17.5$ p=.004 df=5). Whereas only 38% of those without any schooling were able to identify their illness accurately, 67% of those with university education were able to do so. None of the remaining predisposing and enabling variables were significantly associated with it. Since education leads to greater awareness and easy access to information, it naturally leads to more accurate identification.

The identification of illness influenced the **immediate choice of medical sources** ($\chi^2=23.0$ p=.000 df=2) and the **delay in seeking professional care.** Those who could identify the illness immediately sought either popular (67%) or formal sources (15%). A relatively small proportion (19%) decided not to seek care, i.e. postpone the decision to seek care. They preferred to ignore the symptoms (4%), rest and/or observe diet control (15%). Although early diagnosis generally increases the need for medical intervention, it does not necessarily lead to immediate entry into professional care (Table 8.5). In the present sample, those who could accurately identify the illness chose to wait longer before entering formal care, i.e. professional utilisation phase ($\chi^2=61.1$ p=.000 df=4). As can be seen from

Table 8.5, nearly 78% of those who could not identify the illness sought professional

help within two weeks, whereas less than 51% of those who could identify sought

professional help within the same period. But most of those who could identify

Table 8.5. PERCENTAGES OF RESPONDENTS WHO COULD IDENTIFY THEIR ILLNESS AND DELAY IN SEEKING PROFESSIONAL CARE

| IDENTIFY | DELAY IN SEEKING PROFESSIONAL HELP | | | | | | TOT % |
	IMMEDI ATE	UNDER 2 DAYS	UNDER 2 WEEKS	UNDER 2 MONTHS	OVER 2 MONTHS	NEVER	
NO (N=200)	8.0% (N=16)	25.5% (N=51)	44.5% (N=89)	12.5% (N=25)	9.0% (N=18)	0.5 (N=1)	100
YES (N=280)	5.0% (N=14)	10.4% (N=29)	30.4% (N=85)	21.1% (N=59)	21.4% (N=60)	11.8 (N=33)	100

waited for more than 2 weeks (24%) or longer (26%).

8.3.2. LAY UTILISATION PHASE: DECISION TO USE POPULAR SOURCES

Once the symptoms are recognised and the cause and/or illness identified

(correctly or incorrectly), the next step is to decide whether something ought to be

done about it. The individual asks questions like, "What should I do about the

symptoms?". This should not suggest that the only decisions made at this stage are

the ones which require taking medications (i.e. self medication or professional care).

Actions like changes in diet (restriction and supplementation) and behaviour (reducing

work-load, resting) are also forms of lay illness management and often carried out by

an individual in response to recognition of symptoms. Nearly 21% of the total

sample, decided to respond by resorting to such forms of illness management instead

of taking any medication. Many either excluded food substances believed to

aggravate the illness (e.g. astringent foods in the case of acidity patients) or added

new ones which could counterbalance the properties of the illness (e.g. coconut water which is believed to be *cooling* was added by acidity patients). The most frequently mentioned justifications for not resorting to medication were as follows: "symptoms were bearable", "symptoms were too mild", "did not think it was necessary at that stage since the symptoms would appear and then soon disappear", "it was too early to go to the doctor", "hardly disrupt the daily routine", "thought they would disappear with little bit of precaution or restraint".

Many decided to act by seeking medicines based within the non-formal sector (58%) ranging from patent medication (including left-overs from previously prescribed course) to village and home remedies. This decision to seek care is mostly made by the individual himself, thus entering the **phase of self-medication.** In the study sample, 64% of the individuals decided for themselves what was to be done. The remainder were either advised by one or more of the family members (27%) or by their friends and colleagues (9%). A relatively higher number of those who could correctly identify their illnesses (70%) took decisions unaided. These individuals used their knowledge - gained from interactions with others or vicarious learning - to identify and treat their symptoms. They tried to treat the symptoms either individually (e.g. laxative for stomachache and paracetamol for fever) or compare the group of symptoms with what they knew and treated accordingly (e.g. simultaneous occurrence of cold, temperature, and stomachache was interpreted as a bout of influenza and treated accordingly).

As symptoms persisted or became more noticeable, the family and significant others (e.g. immediate and extended family, neighbours) became involved. The particulars of illness and/or symptoms were either verbally **communicated to the**

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members of the lay network or were deduced from the visible signs (e.g. fever, paleness, loss of appetite) or reduced performance of the sick individual (e.g. reduced ability to interact or perform daily role). In easily identifiable illnesses, if the person has not already assumed a sick-role, he/she was assigned one by the family during this phase. The sick individual may, as a result, be entitled to special treatment (e.g. special food, comfortable atmosphere, relief from duties) even when resources were scarce. However, the nature of privileges offered seemed to depend on the status of the person in the household, nature of sickness and the sick individual's willingness to accept the sick-role and the privilege. As will be seen later, the involvement of the lay group was most noticeable in the decision to seek professional help. Only 32% of the sample took this decision unaided. The involvement of lay group reinforced the use of popular sources.

The **use of popular sources**, especially during the first stage is often more pronounced in a medically pluralistic society. Popular sources were used differently for different illnesses ($\chi^2 = 76.5$ p=.000 df=11) and illness types ($\chi^2 = 66.3$ p=.000 df=4). In instances where the symptoms were visibly not serious, the illness was likely to be treated within the non-formal sector. For example, in the case of constipation, the entire sample used Popular sources, whereas for a serious illness like typhoid only 38% did. While the majority of those who suffered from common illnesses (75%), non-serious but chronic illnesses (63%) and cancer (55%) used popular sources, a relatively lower proportion did so in the case of serious but chronic illnesses (40%) and self-limiting ones (28%).

This suggests that although it is possible for people to seek formal treatment at the onset of illness - thereby skipping the lay phase altogether - this does not happen

until the lay phase is perceived as totally ineffective. On the contrary, the lay care was seen to be a self-sufficient source by 7% of the sample, such that formal care was never even sought.

During the lay utilisation stage, the majority of the illnesses are not considered to pose a serious problem. Nearly two thirds of the sample (63%) gave this as a reason to explain their actions. The use of popular sources was considered by them to be sufficient to treat symptoms. Others were trying to reach a diagnosis or waiting to see if the symptoms "become serious enough to be taken to a doctor".

The **duration of the lay phase** varied considerably. For the entire sample, it was as short as 4 days or less (22%), or between 2-4 weeks (17%). In more than a quarter of the sample it was as long as 1-6 months (19%), 6-12 months (6%) or even

Table 8.6. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE AND THE DURATION OF LAY UTILISATION PHASE

DURATION OF THE LAY UTILISATION PH	COMM ON	JAUNDICE TYPHOID	PILES RHEUMATISM	B.P. DIABETES	CAN CER
UNDER 4 DAYS	13.5	**40.0**	16.3	**25.0**	**35.0**
UNDER 7 DAYS	14.0	10.0	6.3	17.5	15.0
UNDER 15 DAYS	12.5	23.8	13.8	10.0	15.0
UNDER 30 DAYS	12.0	21.3	**22.5**	**23.8**	7.5
UNDER 6 MONTHS	**25.0**	5.0	**23.8**	13.8	17.5
UNDER 1 YEAR	8.5	0	11.3	1.3	0
OVER 1 YEAR	4.0	0	2.5	3.8	0
STABLE	10.5	0	3.8	5.0	0

Bold denotes highest column percentage

extended over a year (3%). As a result of differences amongst illnesses and/or their manifestations, there was substantial variation. This phase, as displayed in Table 8.6, lasted for fifteen days or less in the majority of the sample suffering from

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illnesses with serious manifestations like cancer (75%), jaundice and typhoid (74%). On the other hand, a much smaller number from those suffering from non-serious illnesses i.e. common (40%) and chronic (37%) terminated the use of popular sources within that period. Further credence to this is lent by the case of serious but chronic illnesses. Although serious, the initial symptoms of B.P. and diabetes can be mild and easily controlled by Popular treatment. This is reflected in the relatively smaller proportion of these serious-chronic illnesses (53%) terminating their treatment within two weeks.

8.3.3. PROFESSIONAL UTILISATION PHASE: DECISION TO SEEK FORMAL CARE

Entry into professional sphere is the most important landmark in the first stage of utilisation behaviour. The identification, recurrence and the severity of the symptoms and the resulting need to respond appropriately, paves the way to entering this phase.

Irrespective of illness or socio-demographic variables, as many as 93% of the sample, made the **transition to formal care**. Although there are minor differences between illnesses (Figure 8.1), it is educating to find out that 86% of those who made the transition resorted to an Allopathic doctor, and in particular a family doctor (77%). The rest resorted to professionals from *Ayurveda* (5%) and Homoeopathy (6%) or a combination of Allopathy and non-Allopathy (4%). That is to say, although by definition there exists a host of alternative medical paradigms in a pluralistic milieu, the first source of professional care is almost always an Allopathic doctor in an urban context. The use of non-Allopathic sources was restricted to the non-serious illnesses.

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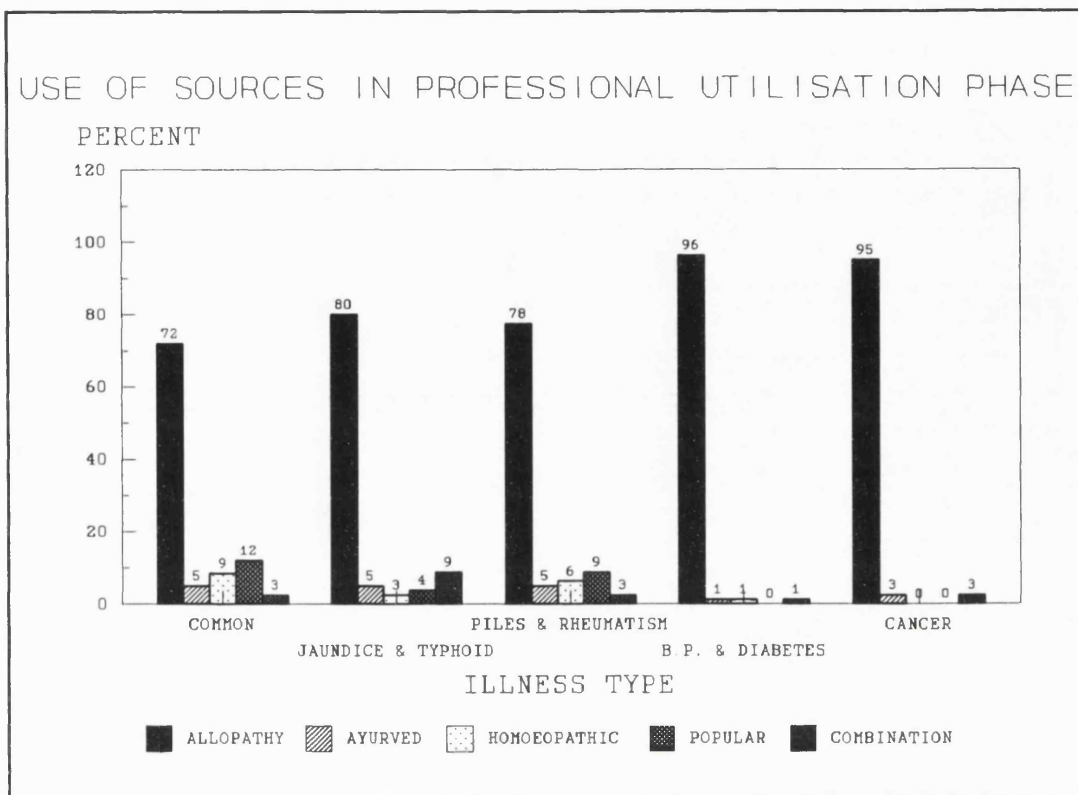
Figure 8.1. **PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE USING VARIOUS SOURCES DURING THE PROFESSIONAL UTILISATION PHASE**

Another feature of this phase which is most typical of a medically pluralistic society, is the **simultaneous use of more than one source**. The simultaneous use occurred in two forms. More than half of the sample (55%) combined either one formal source with one or more non-formal ones (40%) or multiple sources within the same system (15%) during this phase. It should be pointed out that the extent of simultaneous use of this nature is often ignored in the literature on multiple utilisation. In addition, there was also the simultaneous usage of two formal systems. This occurred in two distinctive manners. It took place either on account of the respondents' own initiative (2% of the total sample) or because of the professional who prescribed medicine from two formal systems (3% of the total sample who resorted to professional care).

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The **pathway and delay**[1] in entering the professional utilisation phase also varied according to the illness type. As discussed earlier, some entered formal care within a few hours of noticing the symptoms (23%), while most did so only after using popular sources for some time. Illnesses with serious manifestations were usually taken to a professional almost immediately. The majority of the illnesses

Table 8.7. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS AND THEIR DELAY IN SEEKING PROFESSIONAL CARE

	UNDER 2 DAYS	UNDER 2 WEEKS	UNDER 2 MONTHS	OVER 2 MONTHS	NEVER
ACIDITY	17.5	**32.5**	20.0	27.5	2.5
GAS	17.5	**30.0**	20.0	17.5	15.0
HEADACHE	2.5	**32.5**	25.5	27.5	15.0
CONSTIPATION	0	**42.5**	10.0	27.5	20.0
COLDS	7.5	27.5	20.0	**32.5**	12.5
JAUNDICE	**55.0**	37.5	2.5	0	5.0
TYPHOID	**60.0**	37.5	2.5	0	0
PILES	15.0	20.0	**42.5**	12.5	10.0
RHEUMATISM	15.0	40.0	15.0	**27.5**	2.5
B.P.	32.5	**47.5**	17.5	2.5	0
DIABETES	20.0	**42.5**	25.0	12.5	0
CANCER	32.5	**45.5**	15.5	7.5	0
COLUMN % N=480	22.9 N=110	36.3 N=174	17.5 N=84	16.3 N=78	7.1 N=34

— divides one cluster of illness from the next
Bold denotes highest row percentages

were taken to a professional within two weeks of manifestation (Table 8.7). More than three out of four people had resorted to professional care within two months of first noticing the symptoms. As one would expect, the extent of delay varies

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[1]The patients do not necessarily enter the Professional utilisation phase as soon as they terminate the Lay utilisation phase. Since people often prefer to wait in between the two phases, it should be emphasised here that the duration of lay utilisation phase is not identical to the delay in seeking professional care.

according to the illness type (χ^2=142.7 p=.000 df=20). Compared to the common

and non-serious chronic illnesses, the initial symptoms of self limiting and serious

illnesses were perceived to be more severe and worrying, and therefore, a relatively

higher proportion of the sample resorted to professional care within a shorter period.

The results are self-explanatory with one exception. It is interesting to note that the

majority of those suffering from common illnesses sought professional care within as

short a duration as their counterparts suffering from serious illnesses. This is

perhaps a reflection of the acute symptomatology of the former. For example, in

some cases, sudden onset of 'gas' produced symptoms similar to a coronary attack,

thereby leading to an immediate entry into the professional care. Similarly, since it

is popularly believed that passing stools at least once a day (ideally twice a day) is a

sign of good health, in some cases being constipated for two days heightened anxiety

and resulted in quicker entry into professional sector.

Besides the manifestation of symptoms, i.e seriousness (15%), pain (16%),

Table 8.8. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING ILLNESS CHARACTERISTICS WHICH TRIGGERED THEIR ENTRY INTO PROFESSIONAL UTILISATION PHASE

ILLNESS CHARACTERISTIC WHICH PROMPTED FIRST STRATEGY	TOT N=446	COM MON N=176	JAUN TYPH N=77	PILE RHEU N=73	B.P. DIAB N=80	CAN CER N=40
PERSISTENCE OF SYMPTOMS	8.1	13.1	9.1	2.7	1.3	7.5
DESIRE TO PREVENT FURTHER ILL-HEALTH	32.7	31.3	<u>48.1</u>	24.7	31.3	27.5
COMPLICATIONS or SEVERE RELAPSE	7.4	11.4	6.5	9.6		2.5
NATURE OF ILLNESS (severity,pain, disruption)	47.7	<u>40.9</u>	35.1	<u>60.2</u>	<u>60.2</u>	<u>55.0</u>
OTHER	4.0	3.4	1.3	2.8	7.0	7.5

TOT= % of the total sample which referred to the given criterion
Bold denotes highest row percentages
<u>Underline</u> denotes highest column percentages

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and disruption to normal routine (17%), other **illness related aspects** acted as triggers for seeking professional help (Table 8.8). These ranged from the desire to prevent further deterioration (33%), to persistence (8%) and complications (7%). However, there are differences between illnesses. Since the symptoms of self-limiting illnesses were easily identifiable and indicative of an illness, a relatively higher proportion of the sample (48%) decided to seek professional help in order to prevent further deterioration. On the other hand, the decision to seek professional help was triggered by the debilitating nature of the initial symptoms in the cases of both serious and non-serious chronic illnesses (60%). At first it may appear strange to note that the professional utilisation phase in non-serious illnesses (common and chronic) was triggered by "complications or severe relapses". Since the lay utilisation phase was prolonged and largely effective in controlling the symptoms, their entry into professional care became necessary only after the deterioration in health was perceived to be too sudden and severe to be managed within the lay sector.

Individuals, often assisted by lay-networks decided to seek professional advice for different reasons. Their **expectations from professional care**, as displayed in Table 8.9, suggests that although some expected the professional to carry out diagnosis related tasks, most relied on their curative expertise to either totally cure or immediately relieve the discomfort. As can be seen, the emphasis varied according to the illness type. Serious and non-serious chronic illnesses provide an illustration. While the majority of those with the former (B.P. and diabetes) decided to seek professional help for identification of their illness (51%), their counterparts (piles and rheumatism) mainly expected either total cure or immediate relief (70%).

Table 8.9. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING THEIR EXPECTATIONS FROM THE PROFESSIONAL

EXPECTATION FROM THE PROFESSIONAL	TOTAL N=446	COM MON N=176	JAUN TYPH N=77	PILE RHEU N=73	B.P. DIAB N=80	CAN CER N=40
IMMEDIATE RELIEF	27.6	31.8	18.2	27.4	27.5	27.5
TOTAL CURE	31.8	33.5	39.0	42.5	13.8	27.5
FAITH/PAST EXPERIENCE	2.7	0	6.5	2.7	2.5	7.5
TRYING NEW SOURCES	.2	.6	0	0	0	0
DIAGNOSIS/SECOND OPINION/ CONFIRMATION	29.2	26.1	18.6	12.3	51.3	30.0
DIAGNOSIS AND CURE	7.8	7.4	7.8	12.3	5.0	7.5
OTHER	.7	.6	0	2.7	0	0

TOTAL= % of the total sample in the stage who selected the given criterion
Bold denotes highest row percentages

Unlike the lay utilisation phase, entry into this phase was often influenced by the lay network. As can be seen from Table 8.10, nearly one half of the total sample and similar proportions within illness-specific groups decided to seek professional care after being advised by one or more members of their lay group.

Table 8.10. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING THE SOURCE OF ADVICE WHICH INFLUENCED THEIR DECISION TO SEEK PROFESSIONAL CARE

SOURCE OF ADVICE IN SELECTING FIRST STRATEGY	TOTAL N=446	COM MON N=176	JAUN TYPH N=77	PILE RHEU N=73	B.P. DIAB N=80	CAN CER N=40
OWN	37.9	48.9	32.5	24.7	33.8	30.0
LAY NETWORK	48.9	46.5	61.1	54.7	61.3	42.5
PROFESSIONAL & LAY NETWORK	13.2	4.6	6.5	20.6	5.0	12.5

Bold denotes highest row percentage, Underline denotes highest column percentages

Nearly 89% of those who sought lay advice - irrespective of illness type - turned to immediate and/or extended family (especially elderly women). The remainder were advised by distant relatives, caste members, neighbours, friends, colleagues,

employer etc. As one would expect, those suffering from common illnesses, tend to rely less on lay advice. It is interesting to note that for self-limiting illnesses, there was heavy reliance on the lay network. This is perhaps due to early identification and initial severity of the symptoms in jaundice and typhoid, respectively. It is equally interesting to note that compared to other illness groups, those suffering from non-serious chronic illnesses relied more on the combined advice from professional and lay sources. Two reasons can be identified to explain this. Firstly, a greater proportion of piles patients already had a immediate family member with similar condition. As a result, they sought informal advice of a relative who recommended them directly to a surgeon who carried out the operation. The recommendation and operation took place within the same stage. Secondly, some women had developed severe piles soon after child-birth i.e. whilst they were in the maternity hospital. They were, as a result advised by their doctors as well as relatives to seek treatment. Apart from these illness-specific differences, certain individual variables (predisposing and enabling) also influenced which source of advice triggered their entry into the professional utilisation phase (Table 8.11). With the exception of the self-limiting illnesses, it is safe to say that, men compared to women, those educated in English or mixed medium schools compared to Gujarati-medium schools and higher income compared to lower income groups were less likely to rely on the lay network. Like Suchman's cosmopolitan group, they tend to make decisions unaided. Alternatively, they combine lay advice with that of a professional.

Professional diagnosis sometimes means **reassessment** of the patients' own diagnosis - tentative or definitive - made prior to entering organised health-care. This diagnosis may have been influenced by the lay network during the earlier phase.

Table 8.11. PERCENTAGES OF RESPONDENTS WITHIN SELECTED GROUPS OF VARIABLES ACCORDING TO SOURCES OF ADVICE INFLUENCING THEIR DECISION TO SEEK PROFESSIONAL CARE FOR EACH ILLNESS TYPE

VARIABLES		COMMON			JAUNDICE & TYPHOID			PILES & RHEUMATISM		
		SE LF	LAY	MIX	SE LF	LAY	MIX	SE LF	LAY	MIX
GENDER	MALE	70	18	12	33	59	8	39	44	17
	FEMALE	28	67	5	32	63	5	14	60	27
MEDIUM OF INSTRUCTION	MOTHER-TONGUE	43	51	5	38	58	4	26	57	17
	ENGLISH	59	29	12	24	66	10	26	45	29
INCOME	UNDER Rs.2000	56	42	2	43	57		22	64	14
	UNDER Rs.1999	42	44	13	23	65	13	30	41	30

VARIABLES		B.P. & DIABETES			CANCER		
		SELF	LAY	MIX	SELF	LAY	MIX
GENDER	MALE	43	33	25	45	30	25
	FEMALE	25	63	13	15	55	30
MEDIUM OF INSTRUCTION	MOTHER-TONGUE	38	53	9	30	50	20
	ENGLISH	29	40	31	30	20	50
INCOME	UNDER Rs.2000	48	38	15	25	50	25
	UNDER Rs.1999	20	58	23	35	35	30

Significant results (p < .05, df=2) have been highlighted
MIX refers to combination of professional & lay sources of advice
ENGLISH includes MIXED MEDIUM

It is not necessary that the two diagnoses always agree, i.e. there can be a discrepancy between patient's (or lay group's) and professional's diagnosis. Although there are no individual-specific differences (gender, income, education), there exist significant illness-specific differences in the discrepancy between the two sets of diagnoses (χ^2=128.6 p=.000 df=4). As expected, there was highest agreement in common illnesses and the least in the serious-chronic illnesses

(Table 8.12). However, a brief mention needs to be made about the diagnosis of

Table 8.12. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING THE DISCREPANCY BETWEEN LAY AND PROFESSIONAL DIAGNOSIS

DIAGNOSIS	COMMON	JAUNDICE TYPHOID	PILES RHEUMATISM	B.P. DIABETES	CANCER
DID AGREE (N=150)	88.6 (N=156)	49.3 (N=38)	72.6 (N=53)	28.8 (N=23)	65.0 (N=26)
DID NOT AGREE (N=296)	11.4 (N=20)	50.7 (N=39)	27.4 (N=21)	71.3 (N=51)	35.0 (N=14)

cancer. As mentioned earlier, cancer is a difficult illness to diagnose accurately in

the first instance. Since its symptom manifestation was indicative of other illnesses,

there was little disagreement between the lay and professional diagnoses. This is

further corroborated by the results presented in Table 8.13. Whereas 97% of the

common illnesses were accurately identified by the professional only 33% of the

Table 8.13. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING THE ACCURACY OF PROFESSIONAL'S DIAGNOSIS

DIAGNOSIS WAS ACCURATE	COM MON	JAUNDICE TYPHOID	PILES RHEUMATISM	B.P. DIABETES	CANCER
YES (N=388)	97.2 (N=171)	85.7 (N=66)	83.5 (N=61)	96.3 (N=77)	32.5 (N=13)
NO (N=58)	2.8 (N=5)	14.2 (N=11)	16.5 (N=12)	3.8 (N=3)	67.5 (N=27)

cancer cases were (χ^2=100.2 p=.000 df=4). The symptoms in the remaining cases

were similarly interpreted by the professional and patients. This is further echoed in

the level of satisfaction with the professional utilisation phase (χ^2=62.2 p=.000

df=8). As can be seen from Table 8.14, only a third of the cancer patients were

satisfied with the treatment being provided by the professional and another third were

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indifferent. Since their symptoms continued to persist or get worse, 40% of the total

Table 8.14. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE AND THEIR REPORTED LEVELS OF SATISFACTION

SATISFACTION WITH PROFESSIONAL TREATMENT	COMMON	JAUNDICE TYPHOID	PILES RHEUMAT'	B.P. DIABETES	CANCER
SATISFIED	73.4	89.3	54.8	75.0	30.0
NEITHER	19.7	4.0	30.1	16.3	30.0
DISSATISFIED	6.9	6.7	15.1	8.8	40.0

Based on collapsed data
SATISFIED=VERY & QUITE SATISFIED; DISSATISFIED=VERY & QUITE DISSATISFIED

cancer patients were dissatisfied with their treatment.

The discrepancy between patient's and professional's diagnosis is believed to result in dissatisfaction, scepticism, low compliance rate etc. which are manifested in multiple utilisation behaviour (chapter 2). But the results of the present study seem to only partially support this (see chapter 9 for details). In 32% of the total sample, there was a discrepancy between the diagnosis made prior to illness and that of the professional, yet their rate of switching to other formal systems was not significantly higher than those whose diagnosis was similar. In other words, although there is a discrepancy in diagnosis, individuals using the Allopathic system do not necessarily turn to non-Allopathic systems for cure[2]. They continue to remain within the Allopathic sector. However, there are significant differences between their current strategy and the next one. Nearly 83% of those whose diagnosis did not agree but did prefer to remain within Allopathy, had shifted to a new Allopathic doctor (including specialists and consultants) in the subsequent stages. That is to say,

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[2]Since 86% of the total sample used Allopathic care during the professional utilisation phase, it is safe to interpret the results as mentioned.

although they continued to remain within the same formal system, they had replaced the current professional with another one. This type of multiple usage within a system has been ignored by previous studies.

The current treatment being provided by the professional is periodically **evaluated** by the individual and the lay network. If the treatment is not having the desired effect, it may lead to changes in the current treatment strategy. As can be seen from Figure 8.2, while 11% of those who entered professional utilisation phase recovered completely as a result of the first treatment strategy, the majority of the sample (80%) moved into the subsequent stages. Figure 8.2 isolates people in whom the current form of treatment remained unaltered, i.e. stable[3]. In other words, if the treatment strategy is producing desired results and the individual does not feel any need to alter the treatment procedure, i.e. prefers to continue with the existing treatment, they are said to have stabilised with their treatment. It is important to separate people whose treatment procedures have become constant from those who

CONTINUE 80%

TOTALLY RECOVERED 11%

STABLE 9%

END OF FIRST STRATEGY
N=480

Figure 8.2. PERCENTAGE OF SAMPLE RECOVERING COMPLETELY, BECOMING STABLE, OR CONTINUING TO SEEK FURTHER TREATMENT AT THE END OF FIRST TREATMENT STRATEGY

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[3]The treatment may be continuous or used whenever necessary. As long as no changes are made to this treatment strategy, this is referred to as stable or as users of tertiary care.

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have completely recovered i.e. those who have not had any relapses and have terminated their treatment on a permanent basis. In cases where treatment strategies remain stable, the individuals have the potential to modify their current form of treatment. There are differences between illnesses in the rate of recovery and stability at the end of first strategy (Table 8.15). The self-limiting illnesses are the only ones in which almost half of the sample recovers completely as a result of the

Table 8.15. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS WHO RECOVER TOTALLY OR STABILISE AFTER THE FIRST TREATMENT STRATEGY

	ILLNESS TYPE		INDIVIDUAL ILLNESS	
	TOTAL RECOVERY	STABLE	TOTAL RECOVERY	STABLE
ACIDITY			5%	5%
'GAS'			3%	20%
CONSTIPATION	2%	13%	0	20%
HEADACHE			0	13%
COLDS			3%	8%
JAUNDICE	50%	0	55%	0
TYPHOID			45%	0
PILES	2.5%	4%	5%	5%
RHEUMATISM			0	3%
B.P.	1.5%	19%	0	15%
DIABETES			3%	23%
CANCER	10%	3%	10%	3%
% of TOTAL SAMPLE (N=480)	11	9	11	9

— divides one cluster of illnesses from the next, PERCENTAGES based on N=40 per illness

first treatment strategy. About one out of five suffering from certain common and serious but chronic illnesses (e.g. 'gas', constipation, B.P., diabetes) decided to opt for tertiary care. The rest of the sample continued to seek further treatment.

Those who continued to seek care after the first strategy, cited various

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reasons for discontinuing their treatment procedures. These ranged from incomplete

cure to unsatisfactory treatment. As can be seen from Table 8.16, the principal

reason for discontinuing the first treatment strategy is the perception of cure rather

then dissatisfaction or financial limitations. Contrary to numerous studies which

identify economic barriers as restricting access to the organised sector, it is

interesting to note that only 4% of the sample in each illness type (9% in serious-

Table 8.16. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING THEIR REASONS FOR STOPPING THE FIRST TREATMENT STRATEGY

REASONS FOR DISCONTINUING STRATEGY	TOT %	COM MON	JAUN TYPH	PILES RHEUM	B.P DIAB	CAN CER
SYMPTOMS/ILLNESS CURED	34	44	60	24	22	20
SYMPTOMS UNDER CONTROL	28	32	5	29	44	0
NOT ENOUGH IMPROVEMENT	16	13	10	25	16	25
NO IMPROVEMENT AT ALL	10	5	13	11	3	39
SIDE EFFECTS	4	1	8	4	6	6
NOT CAPABLE/POSSIBLE TO CURE	2	0	5	3	0	11
EXPENSIVE	4	4	0	4	9	0

percentages based on those who continued to seek care after stage 1, N=384

chronic type) stopped treatment because of financial limitations.

The **duration of the professional utilisation phase** also varied in length. It

lasted for longer than a year (6%) or less than four days (9%) or continued

indefinitely in 9% of the cases. But in more than half of the cases (54%), treatment

did not last longer than a month. These variations, displayed in Table 8.17, depend

on the type of illness (χ^2=142.7 p=.000 df=20). In diabetes this phase continued

for 6 months or more for 60% of the sample, whereas it spanned just under a month

for common illnesses like 'gas' (80%), headaches (82%) and self-limiting illnesses

like jaundice (90%) and typhoid (97%). This short duration of the professional

utilisation phase reflects the fact that a majority of these cases resorted to Allopathy

for diagnosis and/or temporary relief. It is not very surprising that this phase lasted

for less than a month in 85% of the cancer patients. Illnesses like cancer are not

easily and correctly diagnosed in most instances (68%) during the preliminary phases.

Table 8.17. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS REPORTING THE DURATION OF PROFESSIONAL UTILISATION PHASE

| | LESS THAN | | | | | MORE THAN A YEAR | STABLE |
	7 DAYS	15 DAYS	A MONTH	6 MONTHS	1 YEAR		
ACIDITY (N=40)	**35.1**	13.5	16.2	16.2	13.5	2.7	2.7
GAS (N=36)	**50.0**	16.7	13.3	6.7	3.3	0	10.0
HEADACHE (N=33)	**42.4**	24.2	15.2	6.1	5.3	9.1	0
CONSTIPAT'(N=33)	18.2	21.2	**27.3**	**27.3**	3.0	0	3.0
COLDS (N=34)	2.9	11.8	**26.5**	**26.5**	17.6	11.8	2.9
JAUNDICE (N=37)	24.0	28.6	**35.7**	10.7	0	0	0
TYPHOID (N=40)	10.7	32.1	**53.6**	3.6	0	0	0
PILES (N=34)	8.8	5.9	**50.0**	29.4	5.9	0	0
RHEUMATISM(N=39)	10.5	15.8	**28.9**	18.4	13.2	10.5	2.6
B.P (N=40)	9.1	15.2	**18.2**	12.1	**18.2**	9.1	**18.2**
DIABETES (N=40)	0	7.9	10.5	21.1	10.5	**26.3**	23.7
CANCER (N=40)	29.0	**34.2**	21.1	13.2	0	0	2.6

Bold denotes highest row percentage

Secondly, as can be seen from Table 8.15, in 10% of the cancer patients, it was

diagnosed and surgically removed quickly, thus reducing the span of the phase.

8.4 SUBSEQUENT STAGES OF UTILISATION: DECISION TO REVISE STRATEGY

As discussed above, in the majority of the cases the process of evaluation during the first stage of utilisation resulted in a need to revise the treatment strategy, i.e **entry into the subsequent stages.** Such revisions begin the iterative process wherein the treatment strategies continue to get altered until the illness is either satisfactorily controlled or cured.

These **alterations in the current treatment strategy** can take place in the form of reduction, addition, or replacement of one or more of the sources being used. Table 8.18 displays the proportion of the sample exhibiting different types of changes made to their first treatment strategy. It seems that the majority of the sample preferred to either change sources within the same system or replace the existing source/s with new ones from another system. Typically, the former were resorting to specialist care within

Table 8.18. PERCENTAGES OF RESPONDENTS WHO CONTINUE TO SEEK CARE AT THE END OF FIRST STRATEGY EXHIBITING THE TYPE OF CHANGE FOR SECOND STRATEGY (N=384)

TYPE OF CHANGE	
REPLACE/ADD ONE OR MORE SOURCES WITHIN SAME SYSTEM	33.1 N=127
REPLACE SOURCE/S WITH NEW ONES FROM OTHER SYSTEMS	30.2 N=116
SUPPLEMENT WITH NEW SOURCE/S FROM OTHER SYSTEM	12.5 N=48
REDUCE SOURCE/S FROM THE EXISTING COMBINATION	12.2 N=47
REDUCE & REPLACE SOURCE/S FROM OTHER SYSTEMS	8.1 N=31
REPLACE & ADD SOURCE/S FROM OTHER SYSTEMS	3.9 N=15

Allopathy on recommendation of their family doctor and the latter were replacing the Allopathic care with non-formal sources. Less than a quarter of the sample decided to carry out two or more types of changes simultaneously (e.g. reduce and replace, add and replace) suggesting that the alterations are not frantic but more controlled.

These changes in the first strategy marked the beginning of the **second stage of utilisation**. Like in the first stage, the treatment in the second stage was also evaluated and a decision to continue with the existing sources or not was taken. As a result, at the end of the second treatment strategy another 37% of the total sample was cured or had become stable. The remainder moved on to the **third stage of utilisation** and so on. In other words, this process of evaluation and revision continued until the treatment became tertiary or the individual was completely cured. The remainder of the total sample was either cured or had resorted to tertiary care after three (24%) and four (12%) stages of such revisions. In 5% of the sample the treatment strategies underwent four or more changes before an acceptable level of health was attained.

The following discussion deals with all the subsequent stages simultaneously. This has been done for two reasons, namely,

i)   to avoid repetitions as the events, decisions and actions in the first stage have already been described in detail.

ii)   to assess similarities and differences between various subsequent stages as well as to sharpen the contrast between the first and the subsequent stages.

It may be appropriate at this juncture to highlight the status of the total sample at the end of each of the subsequent stages (Figure 8.3). Excepting the last stage, the proportion of the sample who continue to revise their treatment strategy decreases. Whereas as many as 80% of those in the first stage continued to seek further care, only 53%, 43% and 29% of those in the second, third and fourth stages respectively did so. These results are meaningless until the differences between illnesses have
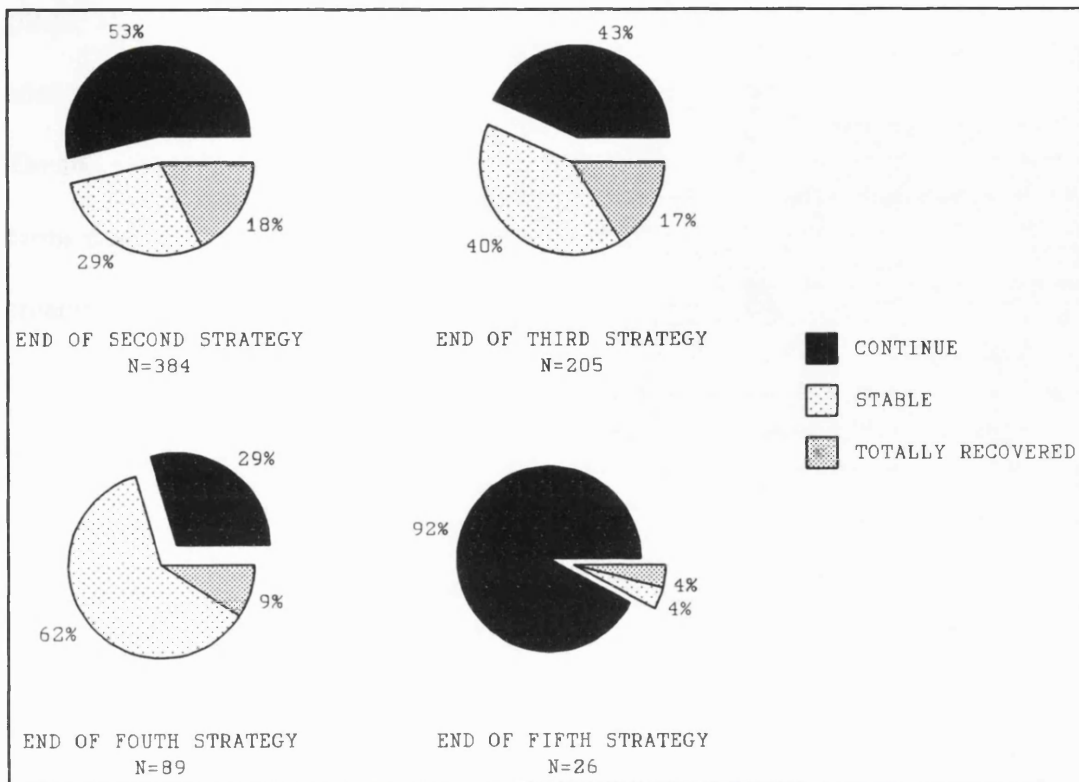
Figure 8.3. PERCENTAGE OF SAMPLE RECOVERING COMPLETELY, BECOMING STABLE, OR CONTINUING TO SEEK FURTHER TREATMENT AT THE END OF EACH SUBSEQUENT TREATMENT STRATEGY

been examined.

Table 8.19 displays the distribution of the sample within individual and clustered illnesses at the end of each stage which was totally cured or became stable. It should be noted here that approximately one third of the sample had been totally cured as a result of one or more of the treatment strategies, whereas, treatment routines of the rest of the sample stabilised at some stage of utilisation behaviour. However, there are differences between illnesses. Whereas in the case of self-limiting illnesses (jaundice and typhoid) and cancer the recovery rate was 100% and 54% respectively, less than a third of the sample suffering from other illnesses recovered fully. As expected the majority of those suffering from the self-limiting illnesses revised their treatment strategies once, i.e. their complete withdrawal took

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place after two stages of utilisation. As discussed earlier, due to difficulties in identifying cancer, the majority of the patients recovered at the end of third strategy. On the other hand, the utilisation behaviour for the majority of the sample suffering from non-serious chronic and common illnesses underwent three or more changes in treatment strategy before becoming stable with the fourth or the fifth strategy .

At this juncture it is important to understand the **nature of changes between two successive stages.** The following describes illness-specific changes for each of the subsequent stages. As can be seen in Table 8.20 to Table 8.21, the majority of the sample preferred to substitute sources from another system for the current ones.

Table 8.19. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS WHO TOTALLY RECOVER OR STABILISE AFTER EACH SUBSEQUENT TREATMENT STRATEGY

	TOTAL RECOVERY					STABLE				
	SOME STAGE		AFTER STAGE			SOME STAGE		AFTER STAGE		
			2	3	4			2	3	4
ACIDITY	16	26	5	13	3	85	76	30	23	18
'GAS'		7	5	0	0		94	40	15	20
CONSTIPATION		14	3	8	3		88	40	15	13
HEADACHE		18	10	0	8		84	28	23	20
COLDS		16	10	3	0		86	30	28	20
JAUNDICE	100	100	45	0	0	0	0	0	0	0
TYPHOID		100	33	18	3		0	0	0	0
PILES	22	33	18	10	0	80	69	38	18	8
RHEUMATISM		11	8	0	3		91	20	20	47
B.P.	16	18	13	5	0	85	83	28	25	15
DIABETES		14	8	3	0		87	20	33	11
CANCER	54	54	18	28	8	46	46	3	5	35
% of TOTAL SAMPLE	35		14	7	3	65		23	17	16

Due to rounding, totals may exceed 100
---- divides one cluster of illness type from the next
Total Recovery refers to no relapses of illness and permanent discontinuation of treatment
Stable refers to continuation of the current treatment strategy without any revisions at any point in future

To illustrate with those in the second stage. The majority of those suffering from common illnesses (except acidity) replaced the former source - i.e. the Allopathic family doctor - with a non-Allopathic one. Their visit to the doctor was triggered mainly by a need to identify the illness or to control the symptoms before resorting to other forms of care which are believed to be more effective. Those suffering from non-common illnesses, on the other hand, mainly changed sources within the system used earlier. Moreover, a relatively higher proportion of the sample added new sources in serious illnesses (cancer, B.P. and diabetes) than those which are not serious.

Although the types of changes taking place between two successive stages are different for different illnesses, there is a consistent pattern across various stages. For example, whereas those suffering from serious illnesses (especially cancer) either moved **within** the existing combination of sources or **supplemented** the existing combination with new ones, their counterparts from common illnesses **replaced** existing sources with new ones. Similarly, those suffering from self-limiting illnesses, tend to drop one or more sources from the existing combination. Overall, nearly one half of the sample in all illness types replaced the current source with a new one during each of the subsequent stages of utilisation.

Table 8.20. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE ACCORDING TO TYPE OF CHANGE EXHIBITED FOR THE SECOND AND THIRD TREATMENT STRATEGIES

TYPE OF CHANGE FOR THE SECOND STRATEGY	TOT % N=384	COM MON N=170	JAUN TYPH N=40	PILE RHEU N=75	B.P. DIAB N=64	CAN CER N=35
REPLACE/ADD ONE OR MORE SOURCES WITHIN SAME SYSTEM	33.1 N=127	31.2 N=53	22.5 N=9	33.4 N=25	39.1 N=25	42.9 N=15
REPLACE SOURCE/S WITH NEW ONES FROM OTHER SYSTEMS	30.2 N=116	40.6 N=69	30.0 N=12	29.3 N=22	15.6 N=10	8.6 N=3
SUPPLEMENT WITH NEW SOURCE/S FROM OTHER SYSTEM	12.5 N=48	7.6 N=13	5.0 N=2	9.3 N=7	21.9 N=14	34.3 N=12
REDUCE SOURCE/S FROM THE EXISTING COMBINATION	12.2 N=42	11.2 N=19	32.5 N=13	13.3 N=10	4.7 N=3	5.7 N=2
REDUCE & REPLACE SOURCE/S FROM OTHER SYSTEMS	8.1 N=31	7.6 N=13	7.5 N=3	9.3 N=7	10.9 N=7	2.9 N=1
REPLACE & ADD SOURCE/S FROM OTHER SYSTEMS	3.9 N=15	1.8 N=3	2.5 N=1	5.3 N=4	7.8 N=5	5.7 N=2

TYPE OF CHANGE FOR THE THIRD STRATEGY	TOT % N=205	COM MON N=90	JAUN TYPH N=9	PILE RHEU N=42	B.P. DIAB N=37	CAN CER N=27
REPLACE/ADD ONE OR MORE SOURCES WITHIN SAME SYSTEM	32.7 N=67	24.4 N=22	22.2 N=2	33.4 N=14	37.8 N=14	55.5 N=15
REPLACE SOURCE/S WITH NEW ONES FROM OTHER SYSTEMS	42.4 N=87	53.3 N=48	55.6 N=5	40.5 N=17	32.4 N=12	18.5 N=5
SUPPLEMENT WITH NEW SOURCE/S FROM OTHER SYSTEM	7.8 N=16	6.7 N=6	11.1 N=1	9.5 N=4	5.4 N=2	11.1 N=3
REDUCE SOURCE/S FROM THE EXISTING COMBINATION	5.9 N=12	6.7 N=6	11.1 N=1	2.4 N=1	8.1 N=3	3.7 N=1
REDUCE & REPLACE SOURCES FROM OTHER SYSTEMS	6.8 N=14	5.6 N=5	0	11.9 N=5	8.1 N=3	3.7 N=1
REPLACE & ADD SOURCE/S FROM OTHER SYSTEMS	4.4 N=9	3.3 N=3	0	2.4 N=1	8.1 N=3	7.4 N=2

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Table 8.21. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE EXHIBITING TYPE OF CHANGE FOR THE FOURTH AND FIFTH TREATMENT STRATEGIES

TYPE OF CHANGE FOR THE FOURTH STRATEGY	TOT % N=89	COM MON N=40	JAUN TYPH N=1	PILE RHEU N=23	B.P. DIAB N=11	CAN CER N=14
REPLACE/ADD ONE OR MORE SOURCES WITHIN SAME SYSTEM	23.6 N=21	20.0 N=8	0	34.8 N=8	9.1 N=1	28.5 N=4
REPLACE SOURCE/S WITH NEW ONES FROM OTHER SYSTEMS	49.4 N=44	50.0 N=20	0	56.5 N=13	54.5 N=6	35.7 N=5
SUPPLEMENT WITH NEW SOURCE/S FROM OTHER SYSTEM	5.6 N=5	5.0 N=2	0	4.3 N=1	9.1 N=1	7.1 N=1
REDUCE SOURCE/S FROM THE EXISTING COMBINATION	12.4 N=11	17.5 N=7	0	0	18.2 N=2	14.3 N=2
REDUCE & REPLACE SOURCES FROM OTHER SYSTEMS	5.6 N=5	5.0 N=2	100 N=1	4.3 N=1	9.1 N=1	0
REPLACE & ADD SOURCE/S FROM OTHER SYSTEMS	3.4 N=3	2.5 N=1	0	0	0	14.3 N=2

TYPE OF CHANGE FOR THE FIFTH STRATEGY	TOT % N=26	COM MON N=10	JAUN TYPH N=0	PILE RHEU N=7	B.P. DIAB N=4	CAN CER N=5
REPLACE/ADD ONE OR MORE SOURCES WITHIN SAME SYSTEM	19.2 N=5	0	0	42.9 N=3	0	40.0 N=2
REPLACE SOURCE/S WITH NEW ONES FROM OTHER SYSTEMS	50.0 N=13	70.0 N=7	0	42.9 N=3	50.0 N=2	20.0 N=1
SUPPLEMENT WITH NEW SOURCE/S FROM OTHER SYSTEM	11.5 N=3	0	0	14.3 N=1	25.0 N=1	20.0 N=1
REDUCE SOURCE/S FROM THE EXISTING COMBINATION	3.8 N=1	0	0	0	25.0 N=1	0
REDUCE & REPLACE SOURCES FROM OTHER SYSTEMS	7.7 N=2	10.0 N=1	0	0	0	20.0 N=1
REPLACE & ADD SOURCE/S FROM OTHER SYSTEMS	7.7 N=2	20.0 N=2	0	0	0	0

In order to gauge the relative popularity of various movements taking place, Table 8.22 displays the percentage of the sample which exhibited them at least once during the course of an illness. On the whole, 58% of the sample replaced a current form of treatment while 49% supplemented the existing form of treatment with other sources at least once during the course of an illness. This suggests that replacing or

supplementing current sources of treatment with others are the most recurrent forms of modification in treatment strategy. As can be seen, apart from typhoid, the majority of the respondents suffering from other illnesses shifted within or between systems at least once during the course of the illness. The maximum number of shifts took place for chronic illnesses and to a lesser extent in acidity both of which are amenable to control or cure with non-Allopathic medication. However, the most interesting movements took place in the treatment of cancer. In an illness which is potentially fatal and where diagnosis can be difficult, it is not at all surprising that one system or practitioner is considered insufficient. As seen earlier, the majority of

Table 8.22. PERCENTAGE OF TOTAL SAMPLE EXHIBITING DIFFERENT TYPES OF CHANGES TO THEIR TREATMENT STRATEGIES AT LEAST ONCE DURING THE ENTIRE COURSE OF ILLNESSES INCLUDED IN THE STUDY

	NO SUBSEQU ENT STAGES	% EXHIBITING TYPE OF CHANGE AT LEAST ONCE DURING THE ILLNESS					
		WITHIN	REPL ACE	ADD	REDUC E	REPL& REDU	REPL &ADD
ACIDITY	5.0	55.0	55.0	52.5	17.5	27.5	12.5
GAS	12.5	15.0	62.5	57.5	20.0	10.0	7.5
HEADACHE	17.5	32.5	70.0	40.0	17.5	5.0	5.0
CONSTIPAT'	17.5	25.0	77.5	22.5	12.5	0.0	2.5
COLD	15.0	50.0	77.5	20.0	10.0	7.5	12.5
JAUNDICE	20.0	10.0	27.5	52.5	17.5	2.5	5.0
TYPHOID	27.5	22.5	30.0	45.0	17.5	7.5	10.0
PILES	10.0	35.0	62.5	30.0	20.0	5.0	12.5
RHEUMATISM	2.5	62.5	77.5	55.0	7.5	27.5	22.5
B.P.	7.5	57.5	40.0	60.0	15.0	10.0	15.0
DIABETES	2.5	30.0	45.0	85.0	7.5	17.5	17.5
CANCER	12.5	62.5	70.0	70.0	10.0	5.0	17.5
TOT SAMPLE N=480	20.0 N=96	39.7 N=191	57.9 N278	49.2 N=236	14.4 N=69	10.4 N=50	11.7 N=56

—— denotes division of illness clusters
redu & repl refers to reduce and replace

these patients progressively added new sources to the existing ones.

A limited number of individually based variable belonging to other components (predisposing and enabling) were associated with the nature of changes across various stages. Compared to women, a significantly higher number of men preferred to replace sources while initiating their second and third strategies. Other variables (education, medium of instruction, income) were not associated with the nature of changes taking place between successive stages.

The **illness characteristics** which influenced the choice of new treatment strategy during the subsequent stages were different from the professional utilisation phase. In each of the subsequent stages, as displayed in Table 8.23, the actions were mainly triggered by persistence of symptoms rather than their debilitating nature (severity, pain etc.). The only exceptions were the self-limiting illnesses and cancer in the second stage. As can be seen, while the majority of the former were motivated by desire to prevent further deterioration in health, the latter were motivated by the debilitating nature of the symptoms. Since almost the entire sample suffering from the former was cured after two or three revisions, many resorted to Popular sources for recuperation or permanent recovery and removal of side-effects of the previous treatment. In contrast to the other illness groups, cancer was the most difficult illness to be correctly identified at onset. In the majority of the cases it was diagnosed in the second or third stage. It is therefore not surprising to find that the decisions of the cancer patients in the second stage, like their counterparts from other illness groups in the first stage, were motivated by the nature of illness.

That is to say, the most common illness characteristic (across the various stages with the exception of the first stage) was the persistence of symptoms and the

Table 8.23. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING THE CHARACTERISTIC OF ILLNESS WHICH TRIGGERED THE NEW TREATMENT STRATEGY IN EACH OF THE SUBSEQUENT STAGES

ILLNESS CHARACTERISTIC WHICH PROMPTED SECOND STRATEGY	TOTAL N=384	COM MON N=170	JAUN TYPH N=40	PILE RHEU N=73	B.P. DIAB N=64	CAN CER N=35
PERSISTENCE OF SYMPTOMS	61.7	80.0	22.5	58.7	59.4	28.6
DESIRE TO PREVENT FURTHER ILL-HEALTH/RECUPERATION	12.2	3.5	45.0	20.0	1.6	20.0
COMPLICATIONS or SEVERE RELAPSE	10.9	6.5	12.5	12.0	25.0	2.9
NATURE OF ILLNESS (severity,pain,disruption)	13.2	10.1	10.0	8.3	11.0	45.7
OTHER	2.0	0	10.0	0	3.2	2.9

ILLNESS CHARACTERISTIC WHICH PROMPTED THIRD STRATEGY	TOTAL N=205	COM MON N=90	JAUN TYPH N=9	PILE RHEU N=42	B.P. DIAB N=37	CAN CER N=27
PERSISTENCE OF SYMPTOMS	67.8	74.4	33.3	61.9	75.7	55.6
DESIRE TO PREVENT FURTHER ILL-HEALTH/RECUPERATION	10.7	3.3	22.2	26.2	0	22.2
COMPLICATIONS or SEVERE RELAPSE	13.7	16.7	0	9.5	16.2	11.1
NATURE OF ILLNESS (severity,pain,disruption)	5.0	3.3	11.1	2.4	8.1	7.4
OTHER	2.9	2.2	33.3	0	0	3.7

ILLNESS CHARACTERISTIC WHICH PROMPTED FOURTH STRATEGY	TOTAL N=89	COM MON N=40	JAUN TYPH N=1	PILE RHEU N=23	B.P. DIAB N=11	CAN CER N=14
PERSISTENCE OF SYMPTOMS	66.3	75.0	0	60.9	63.6	57.1
DESIRE TO PREVENT FURTHER ILL-HEALTH/RECUPERATION	20.0	20.0	0	17.4	9.1	35.7
COMPLICATIONS or SEVERE RELAPSE	7.9	2.5	0	13.0	18.2	7.1
NATURE OF ILLNESS (severity,pain,disruption)	4.5	2.5	100	8.7	0	0
OTHER	1.1	0	0	0	9.1	0

ILLNESS CHARACTERISTIC WHICH PROMPTED FIFTH STRATEGY	TOTAL N=26	COM MON N=10	JAUN TYPH N=0	PILE RHEU N=7	B.P. DIAB N=4	CAN CER N=5
PERSISTENCE OF SYMPTOMS	76.9	80.0	0	71.4	100	60.0
DESIRE TO PREVENT FURTHER ILL-HEALTH/RECUPERATION	15.4	10.0	0	28.6	0	20.0
COMPLICATIONS or SEVERE RELAPSE	3.8	0	0	0	0	20.0
NATURE OF ILLNESS (severity,pain,disruption)	3.8	10.0	0	0	0	0

desire to prevent further ill-health. The importance of other characteristics varied for different stages. For example, the nature of the illness was the main motivating force in the first stage of utilisation but not necessarily during the subsequent stages. The first stage, as discussed earlier, is an illness definition and professional utilisation stage when the sick individuals and their lay referral groups try to comprehend and come to grips with the situation. Hence, characteristics of illness like severity, pain, disruption of routine caused concern and influenced the decision to seek professional help. If this strategy failed to produce desired results, subsequent decisions were mainly triggered by relapses and/or continued ill-health, thereby shifting the focus on to other attributes of illness.

The **expectations from the new treatment strategy** also show similar shift from the first stage (Table 8.24 and Table 8.25). Whereas in the professional utilisation phase the emphasis was on seeking accurate diagnosis, in the subsequent stages it was on immediate relief or total cure. The only exception, as discussed above, being cancer in the second stage. The majority of the cancer patients decided to change the current strategy in favour of a new one in order to facilitate a better diagnosis and cure. Similarly, compared to other illnesses, those suffering from self-limiting illnesses expected total cure from their new strategy, i.e. from the second treatment strategy. This is because, their decision to initiate the new strategy was taken only after the illness was brought under control with the previous strategy. As mentioned above, in the majority of the cases, the aim of the current strategy was to ensure total restoration of health. To summarise, motivations related to the identification of illness such as diagnosis and second opinion were important only during the early stages of the illness. Once the illness has been correctly identified,

the focus shifted to treating the illness either with known or new sources.

Table 8.24. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING THEIR EXPECTATIONS FROM SECOND, THIRD AND FOURTH TREATMENT STRATEGIES

EXPECTATION FROM THE SECOND TREATMENT STRATEGY	TOTAL N=384	COM MON N=170	JAUN TYPH N=40	PILE RHEU N=75	B.P. DIAB N=64	CAN CER N=35
IMMEDIATE RELIEF	31.8	40.0	25.0	21.3	34.4	17.1
TOTAL CURE	20.6	17.1	55.0	24.0	10.9	8.6
FAITH/PAST EXPERIENCE	15.4	20.6	5.0	17.3	12.5	2.9
TRYING NEW SOURCES	10.7	10.0	0	12.0	21.9	2.9
DIAGNOSIS/SECOND OPINION/CONFIRMATION	5.2	5.9	2.5	5.3	3.2	8.6
DIAGNOSIS AND CURE	10.4	4.1	5.0	9.3	7.8	54.3
OTHER	6.0	2.4	7.5	10.7	9.4	5.7

EXPECTATION FROM THE THIRD TREATMENT STRATEGY	TOTAL N=205	COM MON N=90	JAUN TYPH N=9	PILE RHEU N=42	B.P. DIAB N=37	CAN CER N=27
IMMEDIATE RELIEF	38.0	40.0	11.1	40.5	48.6	22.2
TOTAL CURE	17.1	12.2	77.8	16.7	10.8	22.2
FAITH/PAST EXPERIENCE	20.0	32.2	11.1	9.5	10.8	11.1
TRYING NEW SOURCES	16.1	11.1	0	26.2	21.6	14.8
DIAGNOSIS/SECOND OPINION/CONFIRMATION	2.5	1.1	0	2.4	2.7	7.4
DIAGNOSIS AND CURE	3.9	3.3	0	2.4	0	14.8
OTHER	2.4	0	0	2.4	5.4	4.7

EXPECTATION FROM THE FOURTH TREATMENT STRATEGY	TOTAL N=89	COM MON N=40	JAUN TYPH N=1	PILE RHEU N=23	B.P. DIAB N=11	CAN CER N=14
IMMEDIATE RELIEF	25.8	30.0	0	21.7	36.4	14.3
TOTAL CURE	21.3	15.0	100	39.1	9.1	14.3
FAITH/PAST EXPERIENCE	28.1	40.0	0	21.7	9.1	21.4
TRYING NEW SOURCES	13.5	12.5	0	13.0	18.2	14.3
DIAGNOSIS/SECOND OPINION/CONFIRMATION	0	0	0	0	0	0
DIAGNOSIS AND CURE	0	0	0	0	0	0
OTHER	11.2	2.5	0	4.3	27.3	35.7

Table 8.25. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS REPORTING THEIR EXPECTATIONS FROM THE FIFTH STRATEGY

EXPECTATION FROM THE FIFTH TREATMENT STRATEGY	TOTAL N=26	COM MON N=10	JAUN TYPH N=0	PILE RHEU N=7	B.P. DIAB N=4	CAN CER N=5
IMMEDIATE RELIEF	26.9	20.0	0	42.9	50.0	0
TOTAL CURE	23.1	30.0	0	42.9	0	0
FAITH/PAST EXPERIENCE	30.8	40.0	0	0	50.0	40.0
TRYING NEW SOURCES	15.5	10.0	0	14.3	0	20.0
DIAGNOSIS/SECOND OPINION/CONFIRMATION	0	0	0	0	0	0
DIAGNOSIS AND CURE	0	0	0	0	0	0
OTHER	7.7	0	0	0	0	40.0

Despite stage-specific variations, it is possible to make two generalisations about the **duration of each subsequent treatment stage.** Firstly, the treatment

Table 8.26. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING THE DURATION OF SECOND STRATEGY

DURATION OF THE SECOND STRATEGY	LESS THAN					MORE THAN A YEAR	STA BLE
	7 DAYS	15 DAYS	A MONT H	6 MONTHS	1 YEAR		
ACIDITY (N=36)	0	5.6	11.1	36.1	13.9	0	33.3
GAS (N=31)	0	0	3.2	12.9	12.9	19.4	51.6
HEADACHE (N=35)	0	8.6	11.4	22.9	8.6	17.1	31.4
CONSTIPAT'(N=32)	0	0	3.1	21.9	21.9	3.1	50.0
COLDS (N=36)	0	0	2.8	27.8	22.2	13.9	33.3
JAUNDICE (N=18)	0	33.3	44.4	16.7	0	5.6	0
TYPHOID (N=22)	4.5	18.2	31.8	45.5	0	0	0
PILES (N=36)	5.6	0	8.3	25.0	8.3	11.1	41.7
RHEUMATISM(N=39	0	10.3	7.7	48.7	5.1	5.1	23.1
B.P (N=34)	0	5.9	0	26.5	29.4	8.8	29.4
DIABETES (N=30)	3.3	0	20.0	30.0	10.0	10.0	26.7
CANCER (N=35)	0	14.3	14.3	62.9	2.9	2.9	2.9

lasted for longer periods as the number of stages increased. The duration of treatment in the subsequent stages rarely lasted for periods less than a month. This is as much a reflection of the increasing use of non-Allopathic sources which are believed to be slow acting as the gradual grip the patient and the lay-group begin to develop over the event. Secondly, the proportion of individuals whose treatment source was stable increased with every new stage. Both generalisations are equally true across all types of illnesses (Table 8.26 and Table 8.27). That is to say, although few are content with their initial treatment strategies, not many fail to find the satisfactory treatment combination after two to three revisions of the treatment strategy.

Table 8.27. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS REPORTING THE DURATION OF THIRD AND FOURTH STRATEGY

DURATION OF THE THIRD STRATEGY	LESS THAN					MORE THAN A YEAR	STAB LE
	7 DAYS	15 DAYS	A MONTH	6 MONTHS	1 YEAR		
ACIDITY (N=22)	4.5	0	4.5	27.3	18.2	4.5	**40.9**
GAS (N=13)	7.7	15.4	7.7	7.7	7.7	7.7	**46.2**
HEADACHE (N=20)	10.0	10.0	0	20.0	15.0	0	**45.0**
CONSTIPAT'(N=15)	0	20.0	6.7	0	13.3	20.0	**40.0**
COLDS (N=20)	0	5.0	5.0	15.0	10.0	10.0	**55.5**
JAUNDICE	0	0	0	0	0	0	0
TYPHOID (N=9)	0	11.1	0	0	0	0	0
PILES (N=14)	0	14.3	0	14.3	21.4	0	**50.0**
RHEUMATISM(N=28)	0	3.6	10.7	**32.1**	17.9	7.1	28.6
B.P (N=18)	0	5.6	5.6	22.2	5.6	0	**61.1**
DIABETES (N=19)	0	5.3	0	5.3	5.3	10.5	**73.7**
CANCER (N=27)	7.4	7.4	14.8	**37.0**	14.8	7.4	11.1

DURATION OF THE FOURTH STRATEGY	LESS THAN					MORE THAN A YEAR	STAB LE
	7 DAYS	15 DAYS	A MONTH	6 MONTHS	1 YEAR		
ACIDITY (N=8)	0	0	0	12.5	25.0	0	**62.5**
GAS (N=7)	0	14.3	0	14.3	0	0	**71.4**
HEADACHE (N=11)	0	0	0	27.3	18.2	0	**54.5**
CONSTIPAT'(N=6)	0	0	0	0	0	16.7	**83.3**
COLDS (N=8)	0	0	12.5	12.5	0	0	**75.5**
JAUNDICE	0	0	0	0	0	0	0
TYPHOID (N=1)	0	0	100	0	0	0	0
PILES (N=3)	0	33.3	0	0	0	0	**66.7**
RHEUMATISM(N=20)	0	0	0	20.0	15.0	0	**65.0**
B.P (N=6)	0	0	0	16.7	16.7	0	**66.7**
DIABETES (N=5)	0	0	0	40.0	0	0	**60.0**
CANCER (N=14)	0	0	7.1	21.4	7.1	14.3	**50.0**

Bold denotes highest row percentage

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The **use of sources** during the subsequent stages is displayed in Figure 8.4 to Figure 8.7. Although a substantial portion of the sample continued to use Allopathic sources during the subsequent stages, there was a steady movement towards substituting it with the non-Allopathic sources in each illness group. Moreover, there are differences between illnesses. Whereas the use of Allopathic sources in serious illnesses like cancer continue to be very high, in non-serious illnesses its proportion decreases substantially as the number of stages increases. This will be discussed at length in the next section.
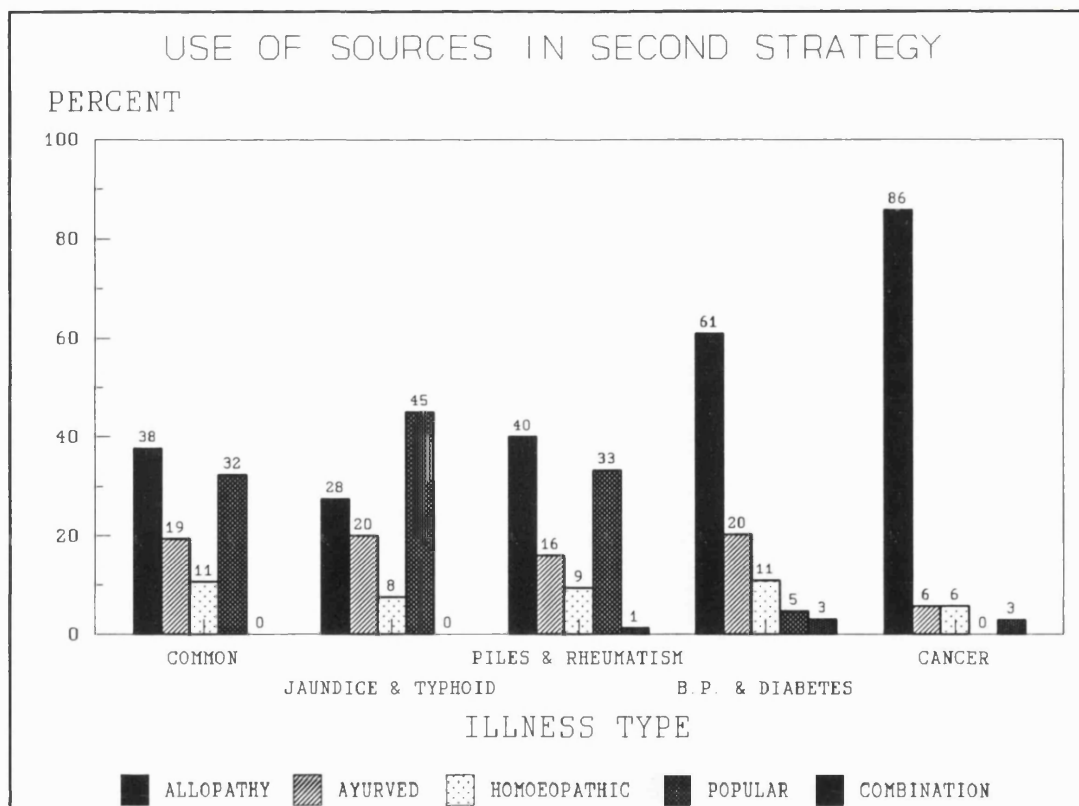
Figure 8.4. USE OF SOURCES IN THE SECOND STRATEGY

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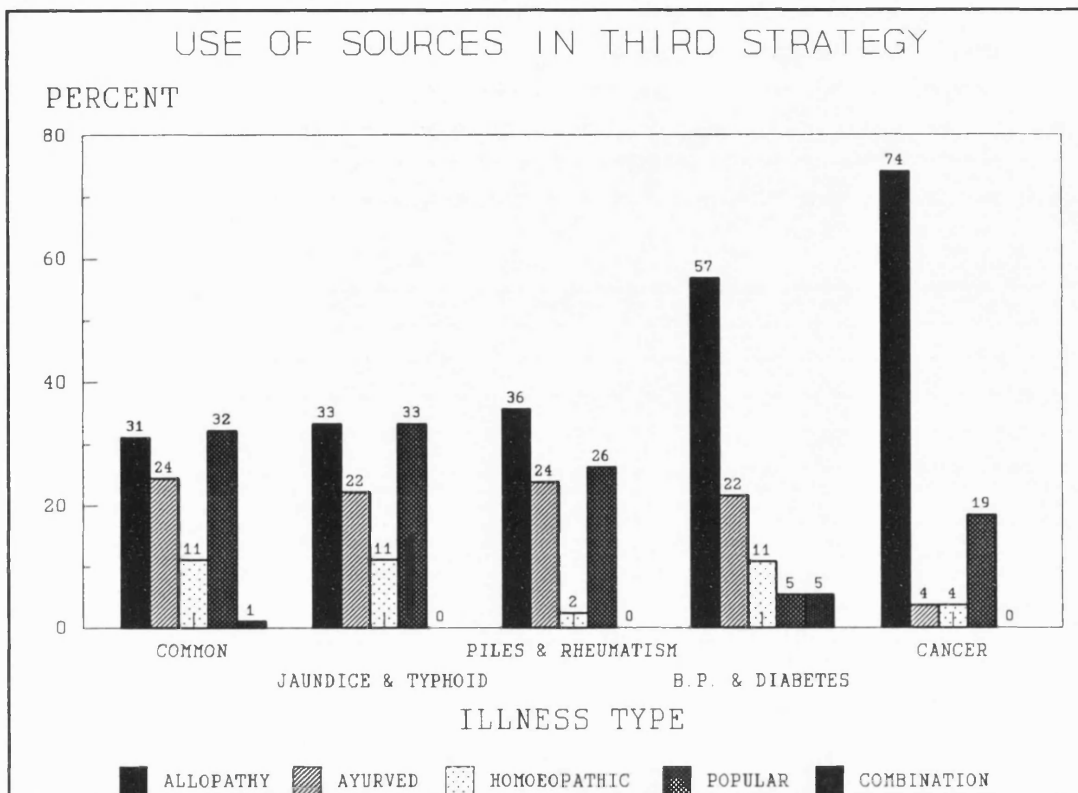
Figure 8.5. USE OF SOURCES IN THE THIRD STRATEGY
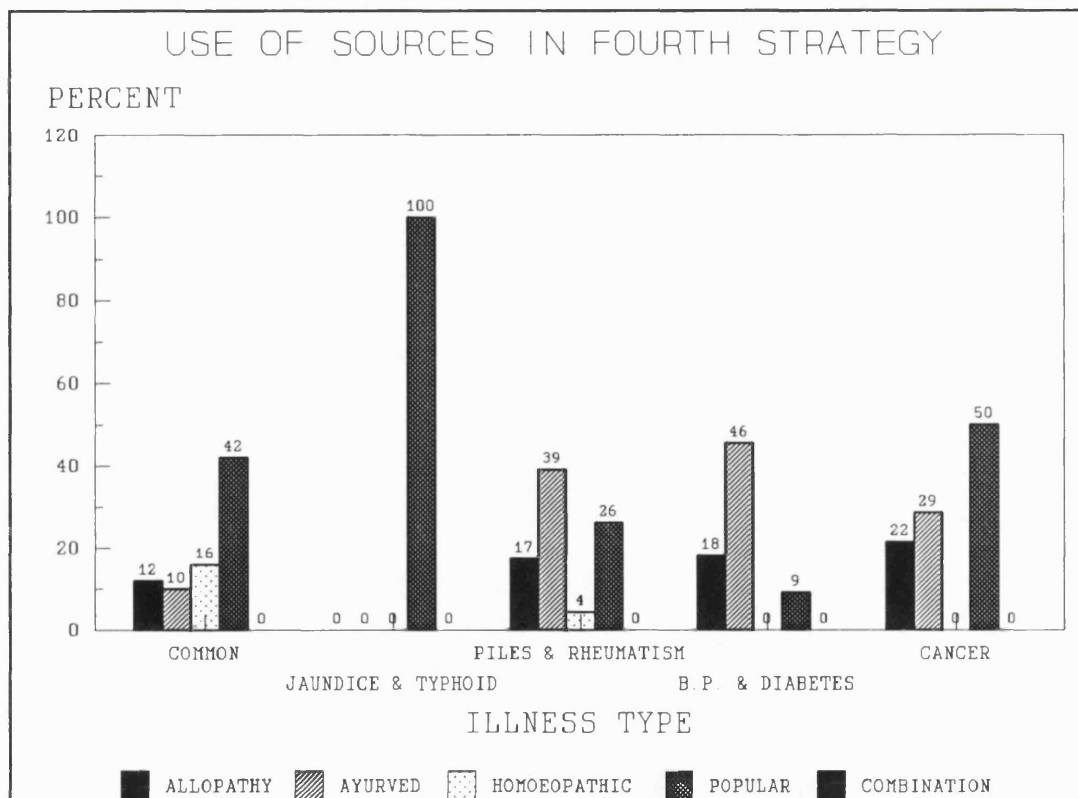
Figure 8.6. USE OF SOURCES IN THE FOURTH STRATEGY
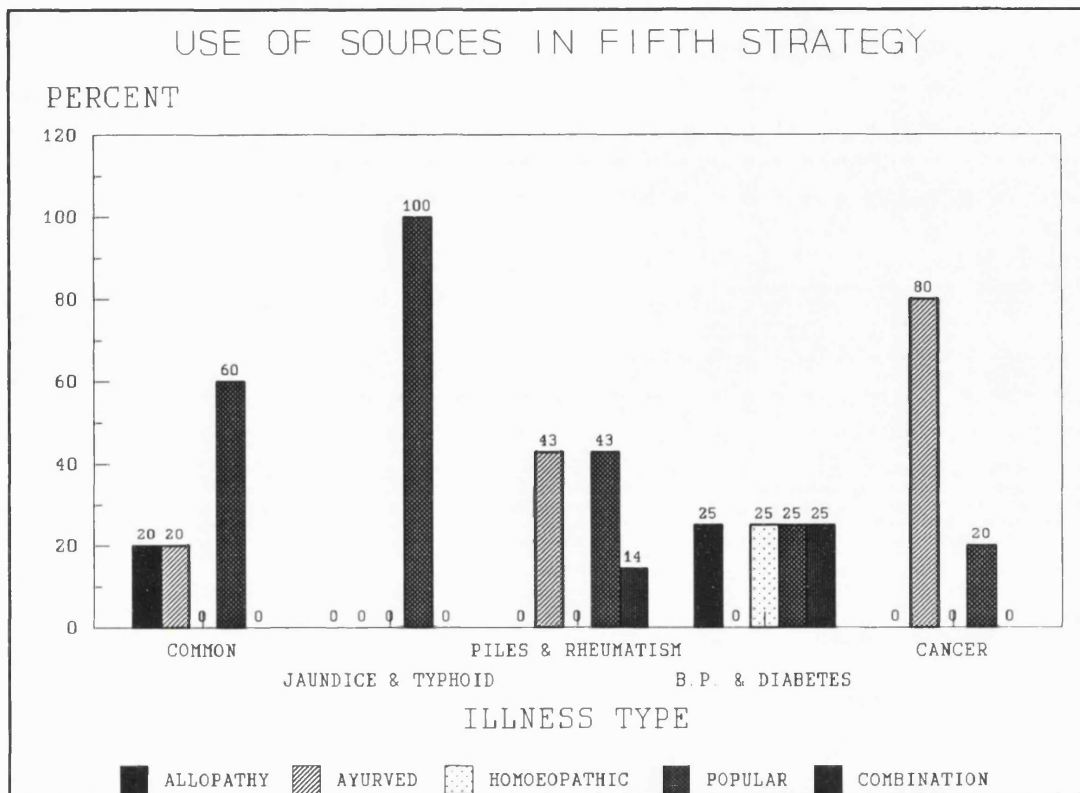
Figure 8.7. USE OF SOURCES IN THE FIFTH STRATEGY

The **family and the lay referral group**, as shown in Table 8.28, continued to exercise a significant influence on the utilisation behaviour of the individuals even beyond the first stage. The lay group assisted about a third of the sample in each stage in identifying the new treatment strategy. However, their involvement varied according to the illness. Take for example, those who revised their first treatment, i.e. initiated the second stage of utilisation. Almost half of the sample who revised the first treatment strategy selected the new strategy on the advise of the lay group in self-limiting illnesses, i.e. jaundice (61%), and typhoid (46%) and serious-chronic ones diabetes (53%), B.P. (41%). In the case of common illnesses the reverse trend can be observed. The majority preferred self-initiated actions in acidity (58%), headache (57%), 'gas' (55%), colds (47%) and constipation (44%). It is interesting to note that for cancer only 11% relied on the lay network exclusively. But nearly

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43% jointly collaborated with professionals to initiate the current strategy. This trend

continues in the rest of the subsequent stages.

An interesting trend in the stage specific role of the lay group can be observed

Table 8.28. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE ACCORDING TO SOURCES OF ADVICE WHICH INFLUENCED THEIR DECISION TO REVISE EACH OF THE SUBSEQUENT TREATMENT STRATEGIES

SOURCE OF ADVICE LEADING TO REVISION OF FIRST STRATEGY AND SELECTION OF SECOND	TOTAL N=384	COM MON N=170	JAUN TYPH N=40	PILE RHEU N=75	B.P. DIAB N=64	CAN CER N=34
OWN	37.5	51.8	30.0	29.3	31.3	5.7
LAY NETWORK	33.6	28.8	52.5	33.3	46.9	11.4
PROFESSIONAL	14.8	11.2	7.5	17.3	12.5	40.0
PROFESSIONAL & LAY NETWORK	13.7	8.3	10.0	20.0	9.4	42.9

SOURCE OF ADVICE LEADING TO REVISION OF SECOND STRATEGY AND SELECTION OF THIRD	TOTAL N=205	COM MON N=90	JAUN TYPH N=9	PILE RHEU N=42	B.P. DIAB N=37	CAN CER N=27
OWN	39.0	56.7	44.4	26.2	35.1	3.7
LAY NETWORK	38.0	31.1	44.4	54.8	40.5	29.6
PROFESSIONAL	14.1	6.7	0	9.5	16.2	48.1
PROFESSIONAL & LAY NETWORK	8.8	5.6	11.1	9.5	8.1	18.5

SOURCE OF ADVICE LEADING TO REVISION OF THIRD STRATEGY AND SELECTION OF FOURTH	TOTAL N=89	COM MON N=40	JAUN TYPH N=1	PILE RHEU N=23	B.P. DIAB N=11	CAN CER N=23
OWN	47.2	50.0	100	30.4	45.5	64.3
LAY NETWORK	30.3	25.0	0	43.5	36.4	21.4
PROFESSIONAL	15.7	15.0	0	17.4	18.2	14.3
PROFESSIONAL & LAY NETWORK	6.7	10.0	0	8.7	0	0

SOURCE OF ADVICE LEADING TO REVISION OF FOURTH STRATEGY AND SECTION OF FIFTH	TOTAL N=26	COM MON N=10	JAUN TYPH N=0	PILE RHEU N=7	B.P. DIAB N=4	CAN CER N=5
OWN	69.2	90.0	0	28.6	75.0	80.0
LAY NETWORK	23.1	10.0	0	42.9	25.0	20.0
PROFESSIONAL	0	0	0	0	0	0
PROFESSIONAL & LAY NETWORK	0	0	0	28.6	0	0

Table 8.29. PERCENTAGES OF RESPONDENTS WITHIN EACH STRATEGY WHO RECOVER COMPLETELY OR BECOME STABLE ACCORDING TO SOURCES OF ADVICE WHICH INFLUENCED THEIR DECISION TO REVISE STRATEGIES

CURED WITH STRATEGY	SOURCE OF ADVICE IN INITIATING	SELF	LAY GROUP ONLY	PROFESSIONAL ONLY	MIX
FIRST	FIRST STRATEGY	21.6	39.2	11.8	27.5
SECOND	FIRST STRATEGY	30.4	42.0	1.4	26.1
	SECOND STRATEGY	36.2	43.5	7.2	13.0
THIRD	FIRST STRATEGY	17.6	47.1	5.9	29.4
	SECOND STRATEGY	17.6	32.4	26.5	23.5
	THIRD STRATEGY	23.5	38.2	29.4	8.8
FOURTH	FIRST STRATEGY	50.0	37.5	0	12.5
	SECOND STRATEGY	25.0	50.0	25.0	
	THIRD STRATEGY	12.5	50.0	25.0	12.5
	FOURTH STRATEGY	75.0	12.5	12.5	

STABLE WITH STRATEGY	SOURCE OF ADVICE IN INITIATING	SELF	LAY GROUP ONLY	PROFESSIONAL ONLY	MIX
FIRST	FIRST STRATEGY	15.6	15.6	6.7	62.2
SECOND	FIRST STRATEGY	40.0	40.0	4.5	15.5
	SECOND STRATEGY	50.9	24.5	14.5	10.0
THIRD	FIRST STRATEGY	36.6	43.9	1.2	18.3
	SECOND STRATEGY	36.6	39.0	13.4	11.0
	THIRD STRATEGY	59.8	17.1	14.6	8.5
FOURTH	FIRST STRATEGY	41.8	43.6	3.6	10.9
	SECOND STRATEGY	34.5	36.4	14.5	14.5
	THIRD STRATEGY	30.9	54.5	5.5	9.1
	FOURTH STRATEGY	54.5	18.2	20.0	7.3

amongst people who get cured or become stable. As displayed in Table 8.29, whereas in the majority of those who are cured, the lay group is particularly active across various stages (except those who get cured in the fourth stage), in their counterparts who become stable it remains active only until the penultimate stage.

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That is to say, although the last revision, i.e. the treatment strategy with which the individual chooses to stabilise with is made by the individual, his/her previous strategies were predominantly guided by the lay group. The sick individuals have greater access, through their lay networks, to the socio-culturally developed "rules of thumbs" or strategies which assists them in effectively revising their treatment strategies.

Overall, 75% of the total sample turned to lay network for advice at least once during the course of their treatment. These comprised over 60% of the sample who resorted to lay group at least once and another 15% who combined lay advice with that of a professional at least once. Moreover, only 15% of those who failed to seek lay advice suffered from serious illnesses like cancer (4%) B.P. (4%) and diabetes (7%). The remainder mainly suffered from non-serious (common and chronic) illnesses. However, the degree of involvement varies and often depended on predisposing and enabling variables. For example, whereas 67% of women sought advice from the family members at least once, only 38% of men did so.

8.5. EMERGENCE OF PATTERNS

Implicit in the above discussion on the decisions strategies and the resulting variety in the use of sources, is a suggestion that there is an emerging pattern of utilisation behaviour. This section attempts to delineate these patterns which result from the use of formal and non-formal sources. These patterns of movement across sources continue to be formed until a satisfactory level of health is attained.

As described in chapter 6, there can be many pathways or patterns of utilisation behaviour and some can be more dominant than others. The following section begins by summarising the overall trends in the use of formal and non-formal

sources and their implications. As will be evident from the results, the most common

trend of movement is from the non-formal to the formal sources and a return back to

non-formal sources. This section then proceeds to compare these patterns of

utilisation with those obtained from the previous studies and assess the underlying

rationale, i.e. how these patterns are formed in the light of various criteria on which

decisions about seeking and revising treatment are based.

Presented in Figure 8.8 is the overall use of various sources (i.e. at least once
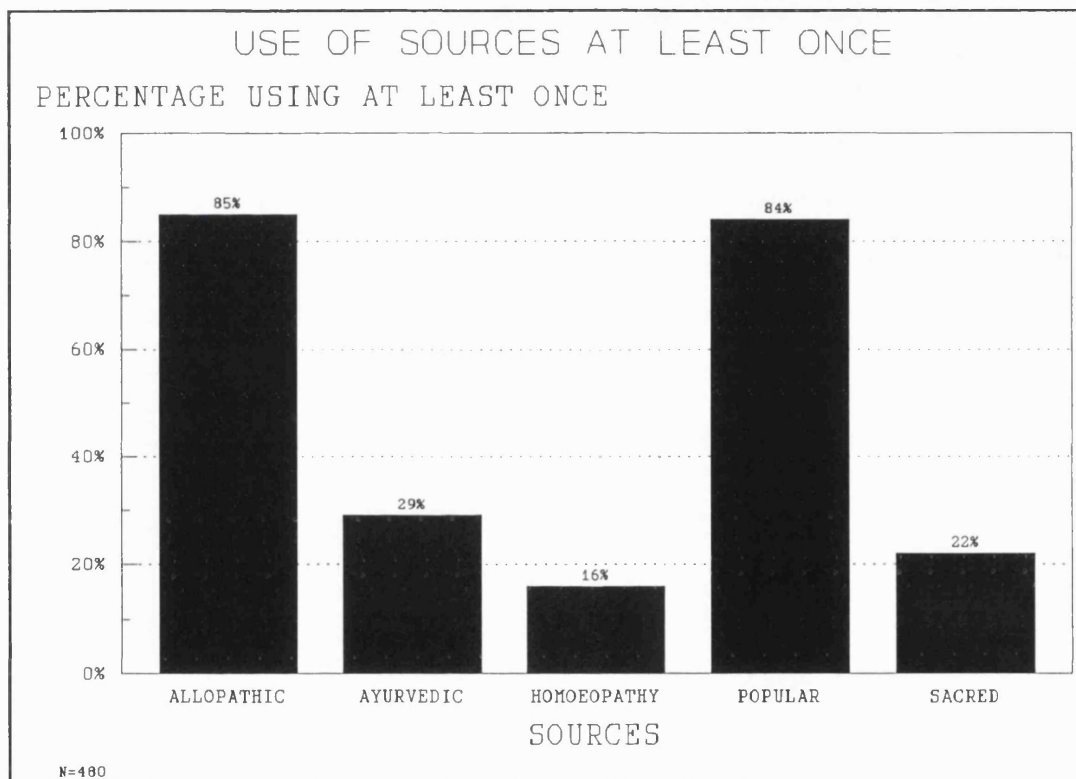
Figure 8.8 PERCENTAGE OF SAMPLE USING FORMAL AND NON-FORMAL SOURCES AT LEAST ONCE DURING THE ENTIRE COURSE OF AN ILLNESS

during the entire course of the illness). Looking at these percentages it is clear that

while the Homoeopathic sources were used the least, the Allopathic and Popular ones

were used the most across all illness types. Allopathy was used at least once by

approximately 85% of the sample whereas only 16% used Homoeopathy. Nearly

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85% of the total sample, including 7% who never entered professional care, resorted to Popular sources at least once.

In addition, nearly 87% of the sample, combined formal medicine with non-formal ones at least once. Over a third of the total sample (34%) used more than one formal system while treating their illnesses. In other words, more than eight out of ten people have used both Allopathic and Popular sources in their treatment strategies and at least three of them have used one or more of the non-Allopathic sources.

As expected, there are illness-specific differences in the use of sources at least

Table 8.30. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS REPORTING THEIR USE OF DIFFERENT SOURCES AT LEAST ONCE

	ALLO-PATHIC		AYU-RVEDIC		HOMO-EOPATHIC		POPULAR SOURCES		SACRED SOURCES	
ACIDITY		90.0		45.0		30.0		75.0		25.0
'GAS'		75.0		30.0		15.0		92.5		15.0
HEADACHE	77.0	82.5	32.0	17.5	20.5	20.0	92.0	97.5	13.0	12.5
CONSTIPATION		67.5		35.0		12.5		97.5		2.5
COLD		70.0		32.5		25.0		95.0		10.0
JAUNDICE	90.0	82.5	17.5	15.0	5.0	7.5	65.0	67.5	17.5	17.5
TYPHOID		97.5		20.0		2.5		62.5		17.5
PILES	83.7	70.0	33.7	22.5	20.0	12.5	96.0	97.5	26.0	22.5
RHEUMATISM		97.5		45.0		30.0		95.0		30.0
B.P.	97.5	100.	33.7	30.0	13.7	10.0	77.0	70.0	31.2	32.5
DIABETES		95.0		37.5		17.5		85.0		30.0
CANCER	100.	100.	22.5	22.5	5.0	5.0	75.0	75.0	67.5	67.5
TOTAL SAMPLE	85.6	85.6	29.4	29.4	15.6	15.6	84.2	84.2	22.3	22.3

once (Table 8.30). Whereas in serious illnesses (including cancer), the entire sample used Allopathic sources at least once, in common illnesses like headaches almost everyone used Popular sources. Similarly, the *Ayurvedic* systems was used more

frequently in the non-serious illnesses compared to Homeopathy. Whereas more than two out of three (68%) cancer patients used Sacred sources only 3% did so in the case of constipation.

But, this approach to studying utilisation is far from adequate. Although widely employed, such conceptualisation fails to recognise the variable and fluid nature of the phenomenon of utilisation. The results of the study presented in the previous chapter clearly identify the sequential, i.e. a stage-specific usage of formal and non-formal sources. The following is an attempt to identify various patterns underlying the aggregated results presented in Figure 8.8.

8.5.1. TRENDS IN THE SEQUENTIAL USE OF FORMAL AND NON-FORMAL SOURCES

As discussed earlier, utilisation behaviour should be conceptualised as a process comprising several different treatment strategies. As a result, the same group of sources come to be used in different combinations and order. Take for example, two sources namely Allopathy and Popular. Nearly 52% of the total sample only used these two sources of treatment. But as many as 37 different permutations - ranging from independent use to their combinations within and across different strategies - can be identified. For example, a person going through one revision, i.e. two stages, may decide to begin with Popular sources and then proceed to Allopathic ones. Another may choose to do the reverse. Alternatively, a person may begin with either Popular or Allopathy and then decide to add the remaining source and continue to use both simultaneously. Or the person may decide to begin with both sources and reduce to one by discontinuing the use of the other. And so on.

Similarly, only 3% of the total sample, i.e. 10% of the multiple users of formal systems (34%), decided to use two or more formal systems within the same

treatment stage. The rest, i.e. 90% of these multiple users, had discontinued treatment based on one of the formal medical systems before resorting to another one. That is to say, most multiple usage of the formal system is sequential rather than simultaneous. It is this sequential nature of utilisation which is of prime interest here. The sequential pattern in the study, as narrated below, begins with the use of non-formal sources, followed by formal ones and then a reversal to non-formal sources.

Once the symptoms were perceived, the **first step** is to use Popular sources. As discussed in section 8.3.2., during the lay utilisation phase, nearly 80% of the total sample decided to use Popular sources. The **second step** is to turn to a professional. The results of the study (Figure 8.9 to Figure 8.13) suggest that the on entering the professional sector the next obvious source of treatment was Allopathic across all illness type. As discussed in chapter 4, the family doctors occupy a central position in the health care delivery structure in south Bombay and were the first professionals to be approached (Table 8.31). To recapitulate, nearly 80% of the total sample (and 86% of those who entered the professional utilisation phase) used Allopathic sources during the first stage.

Table 8.31. PERCENTAGES OF RESPONDENTS USING ALLOPATHY AT LEAST ONCE AND PRIOR ACCESS TO A FAMILY DOCTOR

		USE OF ALLOPATHY (FIRST STAGE)		TOTAL
		YES	NO	
FAMILY DR.	YES	75.6 (N=344)	7.6 (N=34)	84.8 (N=378)
	NO	12.8 (N=57)	2.5 (N=11)	15.2 (N=68)
TOTAL		89.9 (N=401)	10.1 (N=45)	100 (N=446)
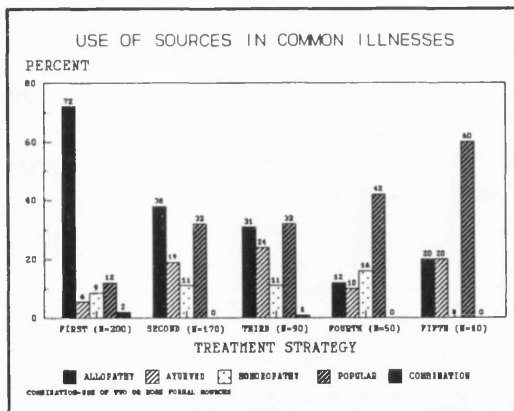
Figure 8.9. STAGE-SPECIFIC USE OF SOURCES IN COMMON ILLNESSES
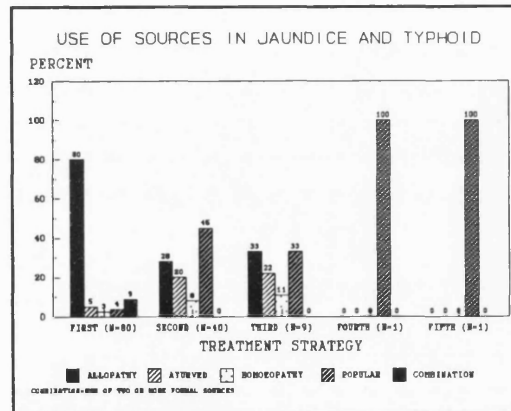
Figure 8.10. STAGE-SPECIFIC USE OF SOURCES IN SELF-LIMITING ILLNESSES
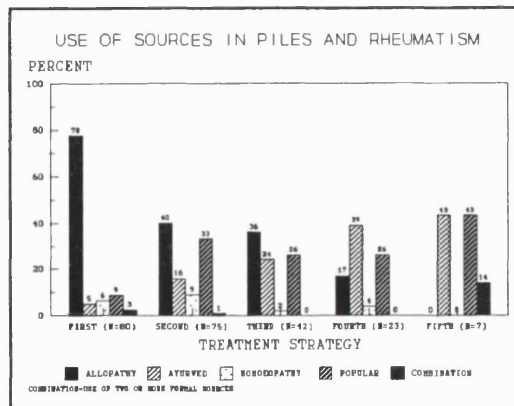
Figure 8.11. STAGE-SPECIFIC USE OF SOURCES IN NON-SERIOUS CHRONIC ILLNESSES
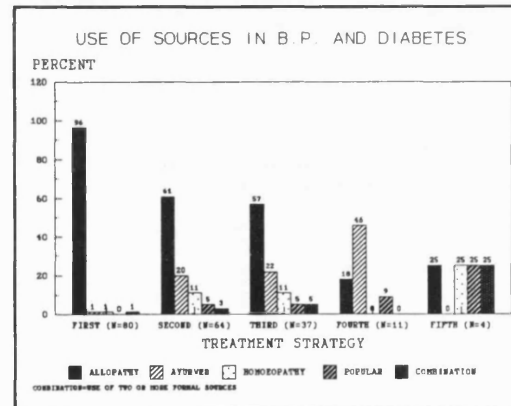
Figure 8.12. STAGE-SPECIFIC USE OF SOURCES IN SERIOUS-CHRONIC ILLNESSES
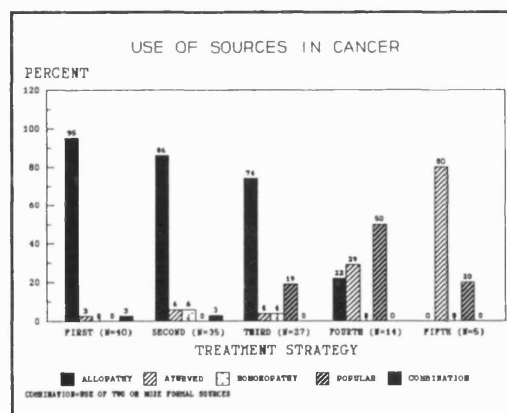
Figure 8.13. STAGE-SPECIFIC USE OF SOURCES IN CANCER

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After these two steps, the picture may appear to be slightly hazy - probably because of the differences both among illnesses and respondents. Nonetheless, in the subsequent stages, Allopathy continues to be the single most dominant system for all illness types.

But the predominance of Allopathy should not be exaggerated. For example, in stage two, the *Ayurvedic* and Popular sources appear to attract most of those who decided to change their course of treatment, whereas the majority of the Allopathic users are those who continued from the previous stage. Although the volume of Allopathic users in any stage was greater than that for any of the other sources, those who switched to non-Allopathic sources resort first to the *Ayurvedic* and subsequently to the Homoeopathic systems.

The **third step** in the search for appropriate therapy seems to lead respondents towards non-Allopathic sources. However, there is another very subtle shift which should not be lost sight of. Although in absolute terms, the volume of usage of the *Ayurvedic* system was larger, the proportion of new entrants into the Homoeopathic system was comparatively higher in stages three and four.

But one should not overlook the significance of the Popular sources whose volume of usage during these stages is much higher than that of the formal non-Allopathic systems. Often, the last of the subsequent stages was marked by a **return to the use of lay sources.** A third of the sample (32%) chose to resort to the use of Popular sources exclusively during the last stage of utilisation. Several reasons were cited for such reversals. Firstly, in certain illnesses, although the symptoms might have disappeared during an earlier stage, the fear of relapse or the need to recuperate prompted 35% of the sample to seek lay treatment as a final step. To

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illustrate, in the second stage, nearly half (44%) of those who used Popular sources had already been cured as a result of the first treatment strategy. Secondly, in some cases, the reversals were based on the need to eliminate illness from the roots (30%), to remove the "heating" and other harmful side effects of Allopathic medicine etc. These reasons were emphasised especially for illnesses like jaundice, typhoid and piles. Another reason for reverting to non-formal sources was especially evident for common illnesses. Once these symptoms were brought under control by the professional, future relapses were treated with the use of lay sources. That is to say, these respondents become stable with Popular sources. This is evident from the following. About 44% of those who become stable with the first strategy did so using Popular sources. Similarly, 46% of the second, 38% of the third, and 58% of the fourth strategy preferred to stabilise using Popular sources. The reasons for doing so varied. Occasionally, respondents cited economic reasons for their actions. As one put it, "in order to avoid spending unnecessary money on a doctor, I'd rather buy the same drug cheaper from a chemist". Others felt that since their illness was diagnosed and was not a serious one, it was not necessary to run to a doctor every time. They felt that they could easily manage their illness and would only go to a professional if the symptoms were unmanageable.

This arrangement of alternative sources or patterns either completely or partially contradicts observations made by previous studies. For example, Ali Ashraf et al. (1980) noted that,

> "decisions on road to health are the outcome an *ad-hoc* process of weighing many different factors and it is virtually impossible to generalise about the routes they take." (p.2052).

The results presented here clearly highlight the existence of "routes". Likewise, the

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patterns obtained in the present study, only partially supports those observed

elsewhere. Studies carried out in India and elsewhere have a identified hierarchy

which usually begins with non-Allopathic (formal and non-formal) sources followed

by Allopathic ones in India and elsewhere. For example, Rao and Richard (1984)

found that a large majority of the sample suffering from common illnesses, preferred

to use professional Allopathic care only after the illnesses had persisted for longer

than a week. Igun's model (1980), suggested that even if people failed to mention

cost, they generally began with the least costly option, i.e. the Popular sources.

Cosminsky and Scrimshaw (1980 p.275) have summarised the pattern of utilisation

they observed in Guatemala succinctly as follows:

> "A clear sequence of hierarchy of resort does not seem to exist, although the
> trend is to begin with low cost or home remedies and move to more expensive
> resources as the course of the illness proceeds and becomes more serious.
> However there is also a back and forth movement between resources, or a
> shot-gun approach, often based on referrals and advice from relatives and
> neighbours and other practitioners, which seems to be associated with
> desperation over the perceived increasing severity of an illness."

Although these patterns are some of the closest to the present study, there is a

fundamental difference. Instead of a movement from low cost Popular to expensive

Allopathic followed by a "back and forth" movement, the results point to a

progressive movement towards non-Allopathic formal sources or a reversal to non-

formal sources.

Another trend which comes closest to the present study was reported by Lee

(1980). He concluded that

> "It appears that the most typical process of seeking medical help is to move
> from self-medication, to Western-style doctors, to Chinese-style practitioners,
> and finally to a Western-style hospital." (p.360).

The findings of the present study differ with respect to the reversal to the Popular

care instead of Allopathic hospital based care. The explanation perhaps lies in the difference in methodology. Whereas the present study was based on actual illness-episodes, Lee's survey elicited beliefs and sequential preferences. Others like Durkin-Longley (1984) have found different patterns depending on hypothetical preferences or actual illness-episodes.

8.6. CONCLUSION

Illness is a progression of a series of events and may call for different treatment strategies. As such, it would be appropriate to characterise utilisation behaviour not as a singular act but as a series of remedial actions spanning different stages of an illness covering the gradual transition from health to ill-health and possibly back to good health. It is essential to consider this sequence of curative actions and see utilisation behaviour as a **process** of seeking care. Consequently, there are different stages in treatment-seeking process. Moreover, the duration and the activities within each of these stages vary as they are illness and individual specific.

The **first stage** of utilisation is essentially centred on the perception of ill-health and need to identify the illness. Individuals, together with their lay networks, use their knowledge to assess the nature of ill-health and the need for medical attention. Although, in theory, the individuals have the option to ignore the symptoms, very few do. Most decide to seek some form of treatment. This might involve self-medication with the help of Popular sources or seeking professional care. When the symptom manifestation was serious or was difficult to diagnose by using lay knowledge, the need for urgent professional care was perceived. Those who could diagnose their illness waited longer and sought professional care only when the

symptoms could no longer be treated using the lay knowledge. The deceptive nature of some of the serious illnesses led to incorrect lay diagnosis and inappropriate sources of treatment. The primary reason for seeking professional help was the debilitating nature of the initial symptoms. The only exception were the self-limiting illnesses. Desire to prevent further deterioration in health motivated this group of individuals. The majority of the sample expected the professional to either provide total cure or immediate relief. Apart from the illness characteristic, the decision to seek professional care was triggered by advice from the lay group.

Only 9% of the total sample recovered at the end of first stage. The majority of the sample (80%) decided to alter their treatment strategies, thereby moving into the **subsequent stages**. The principal reason for discontinuing the first treatment strategy was the temporary nature of the cure rather than financial limitations. The revision in treatment strategy mainly took the form of replacement or addition of sources within the same system (e.g. shifting from an Allopathic general practitioner to another or supplementing his/her treatment with that of an Allopathic specialist) or replacement of one or more sources from another system (e.g. shifting from an Allopathic doctor to *Ayurvedic vaid*). The nature of these revisions tend to vary according to the nature of the illness. By and large, those suffering from non-serious illnesses (common and chronic) prefer to replace sources and their counterparts from serious illnesses tend to add new sources. This suggest that when stakes are high, people prefer to reinforce their treatment strategy to minimise the chances of failure.

Different stages of utilisation are dominated by different considerations. While the first strategy for all illness types was motivated by seriousness, disruption, and pain, the subsequent strategies were triggered by persistence of illness.

Similarly, the decision to seek the first treatment was predominantly guided by the need to control the illness. Compared to the subsequent strategies, a very small proportion of the sample selected strategies on the basis of previous experience or with the intentions of trying out a new source. Apart from the varying role played by other individually based predisposing and enabling variables, the results stress the significant role played by the family in all the stages. It is, therefore, safe to say that the sick individuals often lack the confidence to single-handedly deal with the demands placed on them by the illness situation. As a result, they turn to lay advice for confirmation of illness, total or partial management of the illness, evaluation and planning of the treatment strategy.

By shifting the focus away from how sources are used individually during different stages, and concentrating on the curative pathways as a whole, the results of the study builds a comprehensive picture of utilisation behaviour and offer an opportunity to comprehend the underlying logic. In the medically pluralistic context of Bombay, there appears to be a well developed hierarchy of medical systems and respondents seem to have worked out the methods of using different sources of care. The individuals in Bombay do not move in a haphazard manner, but progress steadily through the hierarchy in search for a satisfactory cure. The resulting patterns in the use of sources can be clearly identified. They can be summarised as follows:

1. Typically, once the need to seek care is perceived, people initiate a course of treatment with the help of Popular sources of care, excepting when the symptom manifestation is indicative of a serious illness.

2. Subsequently, a person would then seek therapeutic assistance from Allopathic sources which may or may not be supplemented with Popular sources. In the

event, where the illness is not controlled or cured completely, a need for change in treatment is perceived. At this point, one might follow one of the three courses of action:

a. revert back to Popular sources

b. persist with Allopathy and occasionally supplement it with Popular and Sacred sources

c. a total shift to non-Allopathic sources, or their combination with Popular sources.

3. If any of these alternatives fail to yield results, the treatment strategy is once again reviewed and the process continues until the individual is either cured or decides to stabilise with the current treatment.

The results of this study expose certain short comings of both determinant and stage models. Most determinant models, including Andersen and Newman's framework, view utilisation behaviour as a singular and static act. The above results, however, highlight the need to revise this concept of utilisation behaviour and emphasise the need to view it is a sequential decision-making process.

The results also expose certain limitations of the stage models. Suchman's model fails to incorporate the revisions in treatment strategy, i.e. the subsequent stages of utilisation which are very typical in a pluralistic setting like Bombay. The results show that more than 80% of the illness-specific sample decided to revise their treatment strategies more than once, thus reinforcing the earlier claim for a need to incorporate subsequent stages into the model of utilisation behaviour. Moreover, his model failed to recognise the differences between illnesses. The above discussion clearly suggests that since illnesses vary in terms of their manifestations, the utilisation behaviour also shows corresponding variations. For example, illnesses with serious manifestations were taken to a professional almost immediately whereas

their counterparts were taken after a prolonged Lay utilisation phase. Similarly, persons suffering from certain illness types (self-limiting and cancer) recover totally, i.e. reach the recovery and rehabilitation phase, the rest do not.

The stage models developed by Fabrega and Igun seem to approximate the progression of stages as obtained in the present study. This is because they have been developed in a pluralistic medical setting where several sources are not only available, but are perceived to have different strengths and weaknesses. However, like Suchman's, their health-seeking models need to be expanded. While persons suffering from certain illness types recover totally, i.e. reach the recovery and rehabilitation phase mentioned in their models, utilisation strategy of the remaining illness types becomes constant, i.e. although the individual continues to seek treatment, the treatment strategies stop undergoing revisions. Both Igun's and Fabrega's models suggest that the evaluation of current treatment strategy by those who have not recovered, results in a reversal to treatment selection phase. However, the results of the study point to the contrary. Excepting the self-limiting illnesses and to some extent cancer, about a fifth of the sample within each illness type is completely cured. For the remaining sample, after a certain number of revisions, evaluation of current treatment strategy results in stabilising with the current treatment strategy rather than undergoing further evaluations and revisions.

Although the curative decision-making situation resembles uncertainty and risk-taking situations encountered in behavioral decision-making theory, in several ways, it is unlike most decision-making situations dealt in psychology (e.g. voting behaviour, consumer choice behaviour). In the curative choice behaviour the individual cannot withdraw from the situation. A voter, on the other hand, has an

option to abstain. Although studies on health-related issues are common within psychology, the emphasis has usually been on preventive care. Curative decisions, however, are different from the preventive ones in the sense that they are not entirely discretionary. In a preventive situation the person may exercise some control over the rate at which the decisions are made in relation to seeking preventive care. However, the curative situations are distinctive by a relative absence of this flexibility. At the most, the individual may decide not to seek care, but under no circumstances can s/he escape the situation. Moreover, the actions are not solely based on feedback. While selecting the new strategy, the role of the predicted effect of the future strategy is as important as the evaluation of the current one. Whereas in the case of the former, the individual may decide to rely on the socio-culturally developed strategies or "rules of thumb" if s/he does not have sufficient information from previous personal or vicariously learned experiences, and in the case of the latter there is greater reliance on the actual information and its assessment made by the individual and lay network.

To conclude, the processes within an illness cover the transition from a healthy person into a patient, and (usually) the restoration of normality. The treatment related activities prior to and after the transition to formal care are obviously not uniform. But the goal of control/or cure remains constant. The decisions to revise treatment strategies were based on the characteristic of illness and treatment expectations prior to the implementation of the strategy and the subsequent evaluation, level of satisfaction and the involvement of the lay group.

CHAPTER 9
RESULTS- PART II
INDIVIDUAL AND COLLECTIVE DETERMINANTS OF
UTILISATION BEHAVIOUR

9.1 INTRODUCTION

One of the intents of the present study is to understand utilisation behaviour as

a product of several explanatory variables. While extending the theme of the

previous chapter, the present one attempts to identify the relationship between various

explanatory variables and patterns of utilisation behaviour.

Broadly speaking, there are two sub-sets of this objective and hence of the

analysis. To recapitulate, the first set of hypotheses individually studies the

relationship between each explanatory variable and utilisation behaviour. Since the

present study is exploratory in nature, the relationship between several explanatory

variables and patterns of utilisation behaviour is analyzed. It is hoped that this will

facilitate a more realistic understanding of the phenomenon. Whenever possible,

comparisons are made with the results of the empirical studies discussed in chapter 2.

The second set of hypotheses is broader in scope and deals simultaneously

with the effect of several groups of explanatory variables in determining utilisation

behaviour. This is aimed at assessing the differential importance of various

determinants. Section 9.4 concentrates on the collective determinants.

To recapitulate, the definitions of various patterns and types of users, as

explained in chapter 6, is based on the use of formal sources, i.e. use of professional

sources belonging to Allopathy, *Ayurveda* and Homoeopathy. These may have been

combined with non-formal sources. That is to say, unlike the previous chapter it

does not consider non-formal sources (i.e Popular and Sacred) as independent

options, unless used exclusively (i.e. without ever resorting to the professional care). Accordingly, the **exclusive users are those who have used only one formal source** which may or may not have been combined with non-formal ones. The **multiple users are those who exhibited simultaneous or sequential use of more than one formal source** either independently or in combination with non-formal ones.

9.2. PATTERNS OF UTILISATION BEHAVIOUR: AN OVERVIEW

As discussed earlier, there can be many pathways or patterns of utilisation behaviour, and some may be more common than others. To get a general overview of the distribution of various patterns within exclusive and multiple types of usage, Figure 9.1 through Figure 9.5 display them for each group of illnesses. Due to clustering of illnesses, there are unequal number of respondents in each of the illness types. It would be meaningless to present the distribution of various patterns for the sample as a whole.

As can be seen, exclusive utilisation of formal sources is relatively more common across all illness types. Between 58% and 82% of the sample within each illness type preferred to use only one formal source of care. The illness-specific differences in the patterns of utilisation will be discussed under the illness component.

It is a common place in all discussions on utilisation behaviour that medical pluralism leads to excessive multiple utilisation of formal systems. However, the findings of this study lend only qualified support to this. Between 18-42% of the sample decides to seek treatment from more than one formal source. The remainder (58-82%) prefer to combine one formal source with non-formal sources from Popular and Sacred forms of care. In other words, they are the exclusive users of one formal system.
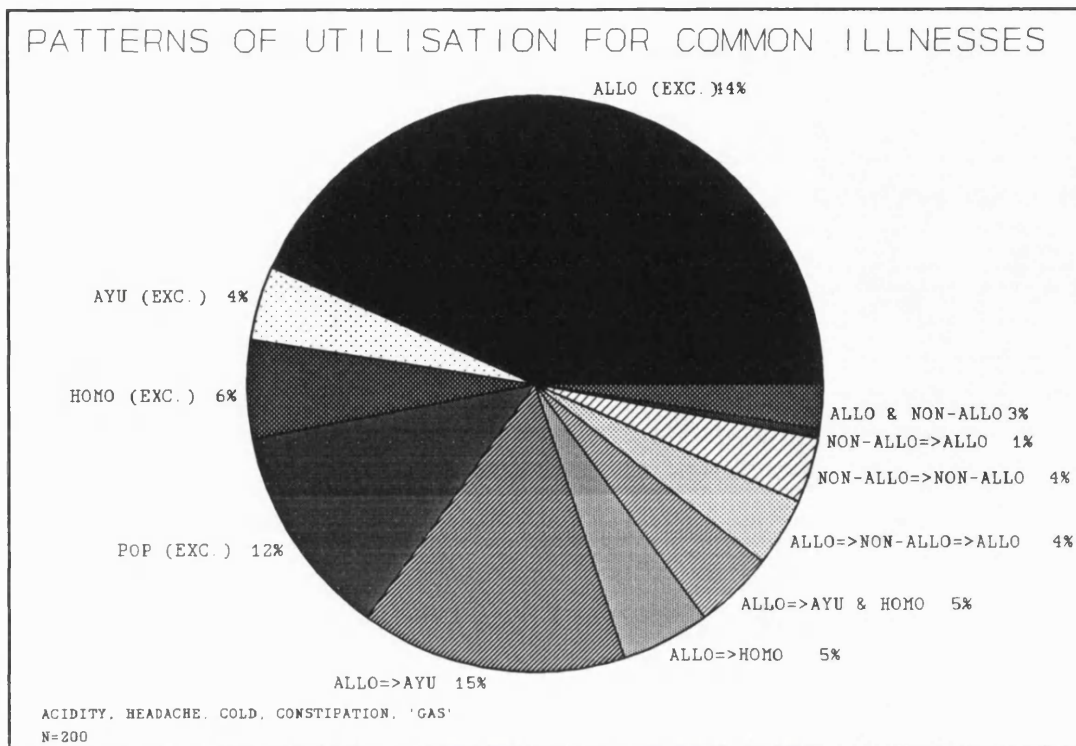
Figure 9.1. PERCENTAGES OF RESPONDENTS USING EXCLUSIVE AND MULTIPLE SOURCES IN COMMON ILLNESSES
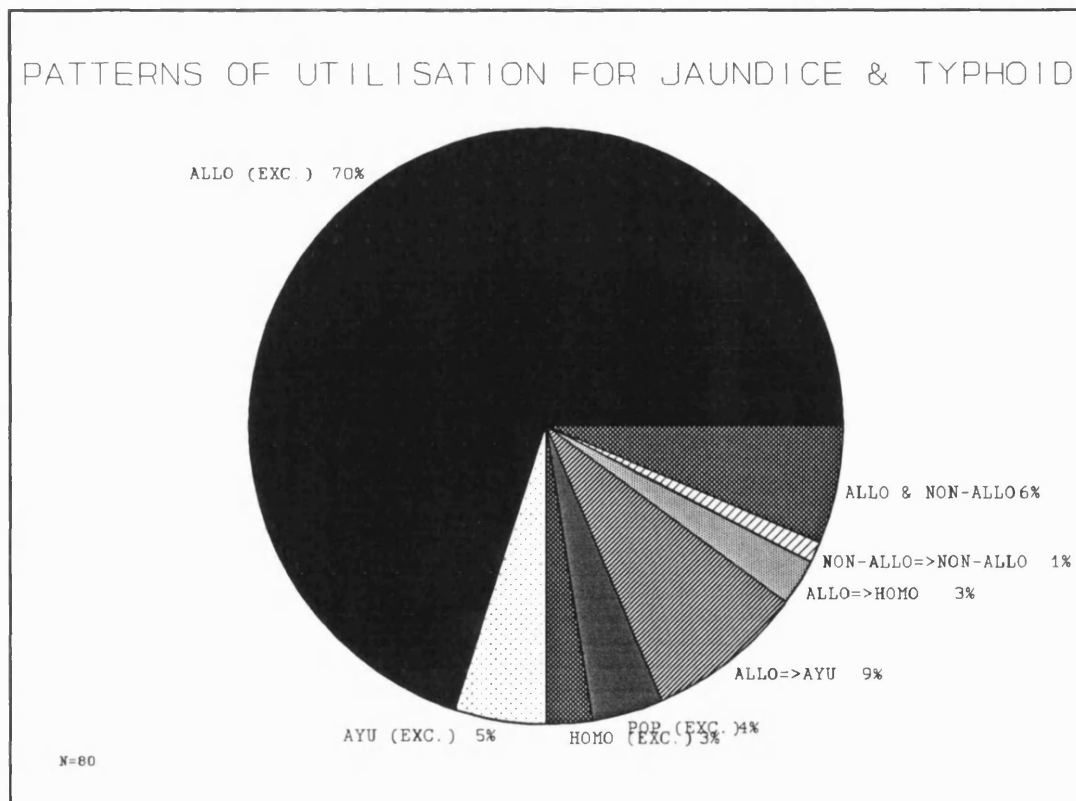
Figure 9.2. PERCENTAGES OF RESPONDENTS USING EXCLUSIVE AND MULTIPLE SOURCES IN SELF-LIMITING ILLNESSES

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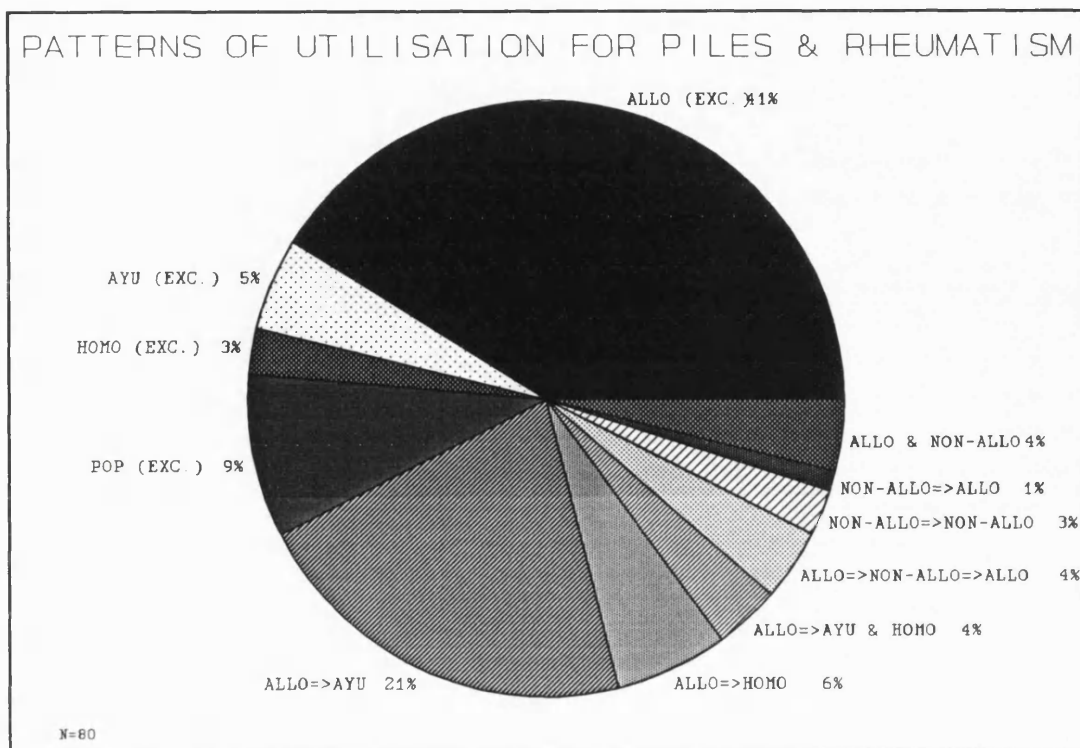
Figure 9.3. PERCENTAGES OF RESPONDENTS USING EXCLUSIVE AND MULTIPLE SOURCES IN NON-SERIOUS CHRONIC ILLNESSES
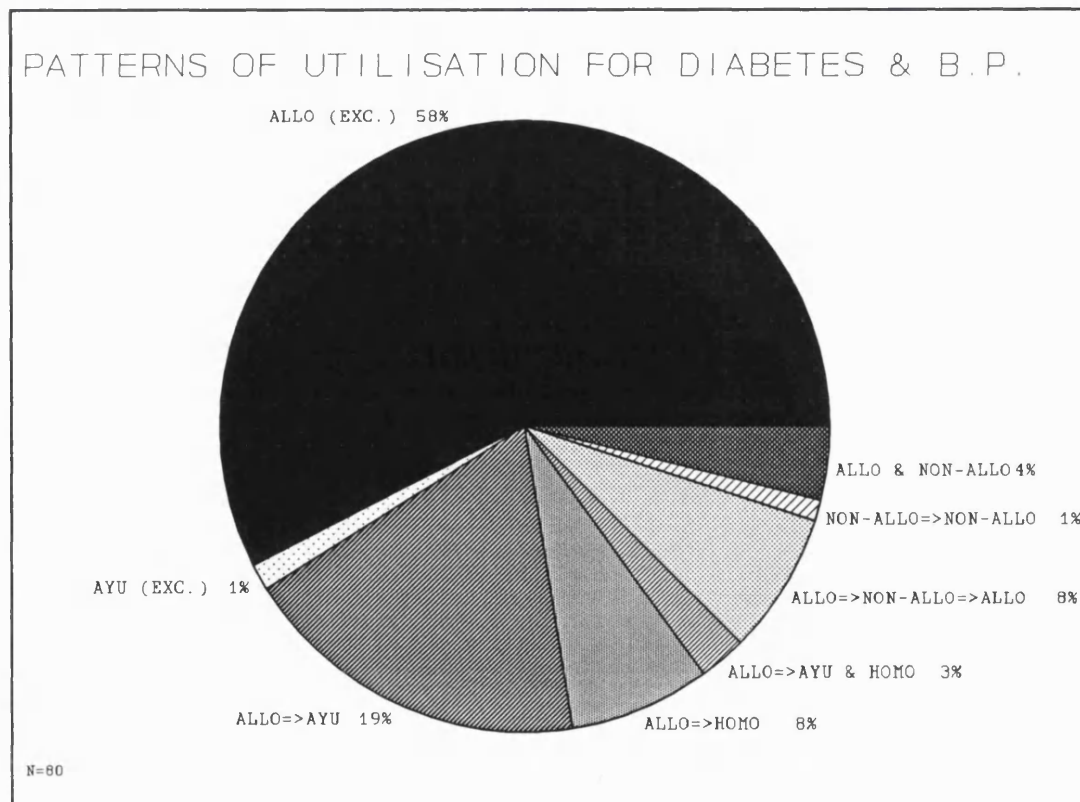
Figure 9.4. PERCENTAGES OF RESPONDENTS USING EXCLUSIVE AND MULTIPLE SOURCES IN SERIOUS CHRONIC ILLNESSES
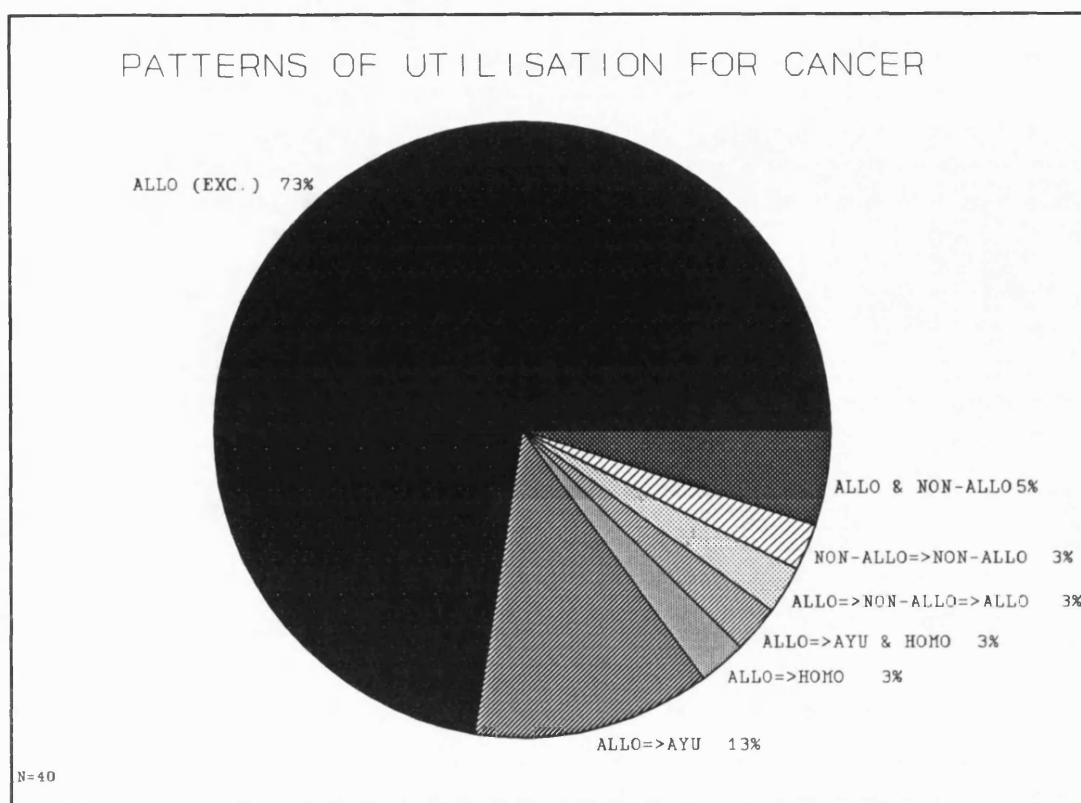
Figure 9.5. **PERCENTAGES OF RESPONDENTS USING EXCLUSIVE AND MULTIPLE SOURCES IN CANCER**

Pertinent studies carried out in the urban areas of India (Madan, 1969) and other societies (Lee, 1980; Durkin-Longley, 1984) have found higher proportion of multiple users. In Ghaziabad (a north Indian city), Madan (1969) found that 65% of the sample had used Allopathic and non-Allopathic systems. In a series of studies carried out in Hong Kong (Lee, 1980), 42%, 53% and 66% of the sample had used Chinese and Allopathic medicine. In Khatmandu (Nepal), Durkin-Longley (1984) found that 78% of the sample had used more than one formal system within an illness.

Several explanations can be advanced to explain these differences in proportion of multiple usage. Firstly, there are some differences in definition and data collection. Both Lee and Madan employ a very broad definition of multiple usage. In the studies carried out by Lee, an individual using Chinese and Allopathic

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in the past three years (one of the studies failed to specify the recall period) was considered a multiple user. Madan's definition of multiple usage, on the other hand, was based on use of two or more formal systems by any one member of the household during an unspecified period in the past. Although, Durkin-Longley concentrated on the use of multiple sources within an illness, it differs from the present study in one important respect. Durkin-Longley's sample was collected from dispensaries of *Ayurvedic* practitioners. Judging by the trend obtained in the present study, the *Ayurvedic* system is generally resorted to after trying Allopathy. This bias in the sample selection in Durkin-Longley's study is perhaps reflected in the higher rate of multiple usage. Similarly, Lee's and Madan's data were based on random samples comprising individuals who were not necessarily ill at the time of the interview. Secondly, these studies do not necessarily distinguish between curative and preventive usage. It is therefore possible that some portion of their sample may have used multiple systems for diagnostic and preventive purposes rather than for curative reasons. This may have produced inflated proportions. Thirdly, unlike the present study, they have not controlled for differences between illnesses. It is likely that the combination of illnesses affecting their sample may be different from the ones under investigation in the present study.

As can be seen from Figure 9.6, the majority of the exclusive users moved within the Allopathic system (80%). Only a fifth of the sample either used a formal non-Allopathic system (13%) or relied on non-formal sources (7%). In other words, despite the popularity, the non-Allopathic systems were rarely used exclusively. Although 23% of the total sample had expressed a preference for the *Ayurvedic* system, less than 4% of the exclusive users actually resort to it.

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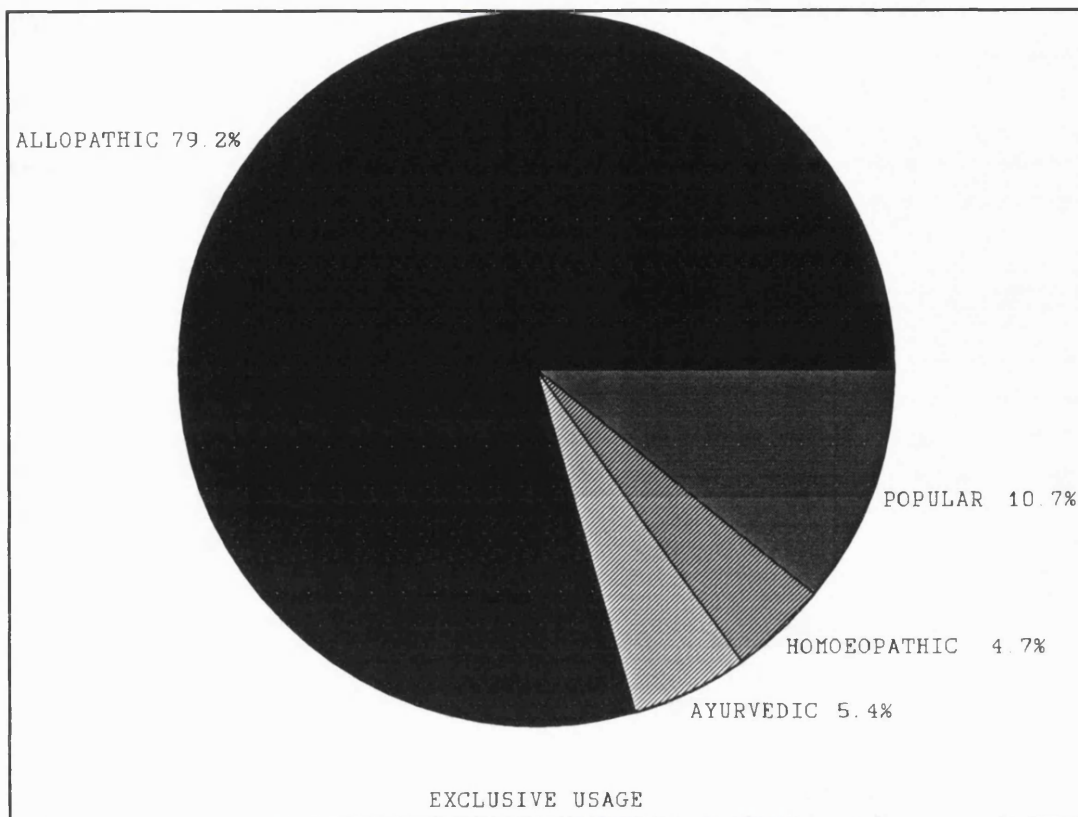
Figure 9.6. DISTRIBUTION OF EXCLUSIVE USERS

Such low volume of exclusive usage of non-Allopathic sources is in line with similar studies carried out in India (Madan, 1969; Bhardwaj, 1975; Rao and Richard, 1984) and elsewhere (Lee, 1980). In an urban study (Madan, 1969), around 80% of the sample indicated a preference for Allopathy.   The rest either preferred the *Ayurvedic* system (11%) or Unani and Homoeopathic systems (9%).   Although the remaining Indian studies were carried out in rural areas or small towns, their findings are nonetheless useful in indicating the following. They illustrate that even in rural areas which are generally considered to be the strongholds of tradition, the non-Allopathic systems are not found to be the systems of exclusive resort or first preference.   In north India, Bhardwaj (1975) found that less than 4% of the rural sample showed a clear preference for *Ayurvedic* system.   Rao and Richard (1984), in south India, found that the *Ayurvedic* system was the first choice of less than 1% of

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the sample. In Hong Kong, only 2% of the sample had consulted a Chinese practitioner exclusively in the past three years (Lee, 1980). The remainder either resorted to an Allopathic practitioner exclusively (45%) or in combination with a Chinese practitioner (53%).

Although the dominance of Allopathy is unquestioned, the popularity of the non-Allopathic systems cannot be underestimated. The role of the latter is most evident in the patterns of multiple utilisation (Figure 9.7). As can be seen, the majority of these users have switched from the Allopathic to the non-Allopathic sources (70%), excepting some (11%) who exhibit simultaneous usage of the both (Allo. & non-Allo.). It is interesting to note that only a small proportion (11%) of the multiple users revert back to Allopathy after making the transition to non-Allopathic care (Allo.⇒non-Allo.⇒Allo.). Another 8% of the multiple sources began
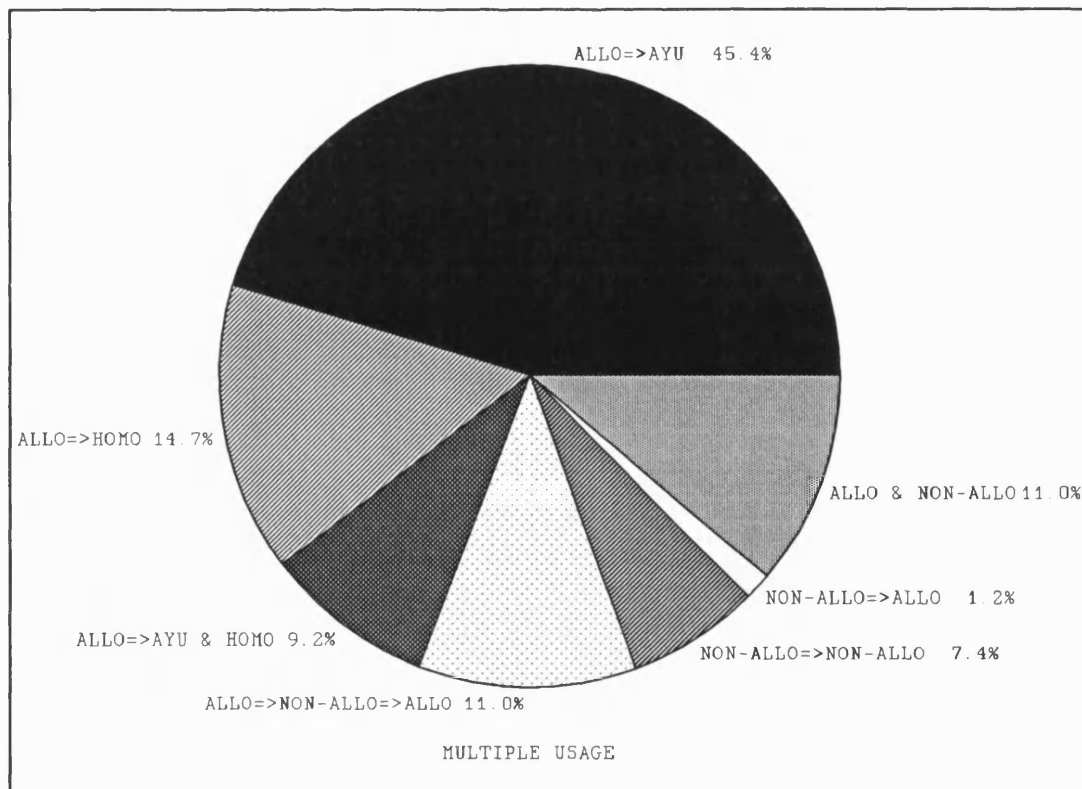
Figure 9.7. DISTRIBUTION OF MULTIPLE USERS

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their treatment using non-Allopathic sources but preferred to either shift to Allopathy (1%) or remain within the non-Allopathic sector (7%).

Nearly 28% of the total sample switched to the non-Allopathic sources after having used Allopathy. This indicates the popularity and persistent use of the former among this sample from Bombay. Non-Allopathic sources are used despite modernisation and competition from Allopathy which, in relative terms, is easily and freely available.

9.3INDIVIDUAL DETERMINANTS OF UTILISATION BEHAVIOUR

9.3.1. AN OVERVIEW

The following section attempts to estimate the influence of variables identified by the multi-dimensional framework at a broader level, i.e. on the type of utilisation behaviour as well as the narrower level, i.e. on the patterns within each type of utilisation behaviour. While the latter assists in understanding the intra-group differences, the former provides a broad overview of the two contrasting types. This has been done so using the GLM technique.

The discussion begins by comparing the exclusive users with their multiple counterparts. Subsequently it contrasts various patterns within exclusive and multiple types. The full implications of the individual determinants on both measures of utilisation behaviour will be discussed thereafter.

9.3.1.1. DETERMINANTS OF MULTIPLE UTILISATION BEHAVIOUR

Table 9.1 presents the results obtained by entering individual variables to the expected model obtained by logit link function. The change in scaled deviance

Table 9.1. INDIVIDUAL DETERMINANTS OF TYPE OF UTILISATION (EXCLUSIVE AND MULTIPLE)

EXPLANATORY VARIABLES			SIG	C.S.D	df
P R E D I S P O S I N G	DEMO-GRAPHIC	GENDER		0.23	1
		AGE		2.13	3
	SOCIO-STRUCTURAL	EDUCATION		1.74	2
		MEDIUM AT SCHOOL		0.46	1
		OCCUPATION		0.86	2
	SOCIAL	RELY ON LAY ADVICE	.005	8.66	1
	BELIEF	EFFICACY OF SYSTEM	.000	43.57	3
		ATTITUDE TO SHOPPING	.005	12.8	2
E N A B L I N G	RESOURCE	INCOME		0.18	3
		FAMILY DR. (ALLOPATHY)		0.41	1
		NON-ALLOPATHY	.000	53.1	1
	TREATMENT	SCEPTICISM OF CARE	.005	11.9	2
		SATISFACTION	.05	6.2	2
IL	ILLNESS TYPE	ILLNESS TYPE	.005	14.7	4

Level of significance based on chi-sq. distribution

(C.S.D.) is significant for selected variables representing each of the components of the framework.

As can be seen, besides the illness component, variables from the predisposing (social, belief), enabling (resource, treatment) components are significant in determining the type of utilisation behaviour.

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9.3.1.2. DETERMINANTS OF EXCLUSIVE PATTERNS OF UTILISATION

Table 9.2 displays the significance levels for each of the explanatory variables

for various patterns within the exclusive type. They are obtained by comparing the

Table 9.2. INDIVIDUAL DETERMINANTS OF VARIOUS PATTERNS OF EXCLUSIVE USAGE

EXPLANATORY VARIABLES			EXCLUSIVE PATTERNS			
			ALLOPA THY N=251	AYUR VED N=17	HOMOEO PATHY N=15	POPU LAR N=34
P R E D I S P O S I N G	DEMO- GRAPHIC	GENDER	-	-	.05	-
		AGE	-	-	-	.05
	SOCIO- STRUCTURAL	EDUCATION	-	-	-	-
		MEDIUM AT SCHOOL	-	.05	.10	-
		OCCUPATION	-	.10	.05	.05
	SOCIAL	RELY ON LAY ADVICE	-	-	-	-
	BELIEF	EFFICACY OF SYSTEM	.05	.05	.05	.05
		ATTITUDE TO SHOP	-	.01	.01	-
E N A B L I N G	RESOURCE	INCOME	-	.10	.05	-
		FAMILY DR. (ALLO.)	.05	-	-	.05
		NON-ALLOPATHY	.05	.05	-	-
	TREATMENT	SCEPTICISM OF CARE	-	-	-	-
		SATISFACTION	-	-	-	-
I L L	ILLNESS	ILLNESS TYPE	.05	-	-	-

Level of significance based on chi-sq. distribution

users of each of the exclusive patterns with the remaining ones in the group.

As can be seen, different variables assume importance depending on the

pattern of usage. Whereas the Allopathic users can be differentiated from other

exclusive users with the aid of all the three groups of explanatory variables, the non-

Allopathic users can be differentiated with the help of only two groups of explanatory

variables. The illness component does not have the discriminatory power to distinguish between different types of exclusive non-Allopathic users.

9.3.1.3. DETERMINANTS OF MULTIPLE PATTERNS OF UTILISATION

Table 9.3 displays the relationship between the explanatory variables and the patterns of multiple usage. Unlike the exclusive patterns, the illness component fails

Table 9.3. INDIVIDUAL DETERMINANTS OF VARIOUS PATTERNS OF MULTIPLE USAGE

EXPLANATORY VARIABLES		MULTIPLE PATTERNS					
		ALLO ⇒ AYU N=74	ALLO ⇒ HOMO N=24	ALLO ⇒ NON-ALLO N=15	ALLO ⇒ NON-ALLO ⇒ ALLO N=18	NON-ALLO ⇒ NON-ALLO N=12	ALLO & NON-ALLO N=18
P R E D I S P O S I N G	GENDER	-	-	-	-	-	-
	AGE	-	-	.05	-	-	-
	EDUCATION	-	-	-	-	-	-
	MEDIUM AT SCHOOL	-	.10	-	-	-	-
	OCCUPATION	.05	.05	.05	-	-	-
	LAY ADVICE	-	-	-	.10	-	-
	EFFICACY OF SYSTEM	.05	.05	.05	.05	.05	-
	ATTITUDE TO SHOP	-	-	-	.05	-	.07
E N A B L I N G	INCOME	.05	.05	-	-	.10	-
	FAMILY DR. (ALLO.)	-	.05	-	-	-	-
	NON-ALLOPATHY	-	-	-	.05	.05	-
	SCEPTICISM OF CARE	.10	.05	.05	-	-	-
	SATISFACTION	.10	-	-	.05	.05	-
I L L	ILLNESS TYPE	-	-	-	-	-	-

Level of significance based on chi-sq. distribution
NON-ALLO⇒ALLO pattern has been excluded since the sample size is too small (N=2)
KEY=   ALLO=ALLOPATHY, AYU=AYURVED, HOMO=HOMOEOPATHY,
        NON-ALLO=NON-ALLOPATHIC SYSTEMS (AYURVED, HOMOEOPATHY)

to distinguish between any of the multiple patterns. As can be seen, variables belonging to both predisposing and enabling components are important in identifying all patterns excepting those who simultaneously use both Allopathic and non-Allopathic formal systems, i.e. Allo. & non-Allo. pattern. The simultaneous users can be distinguished by their attitude to shopping, i.e. belief variables within the predisposing component.

The following section elaborates on the results presented above by examining in detail the performance of each component specified in the multi-dimensional framework, i.e. the relationship between each explanatory variable and the type and patterns within exclusive and multiple utilisation behaviour.

9.3.2. DETAILED ANALYSIS

9.3.2.1. PREDISPOSING COMPONENT AND UTILISATION BEHAVIOUR

The predispositions of a person seeking medical intervention are especially important since utilisation behaviour is voluntary and typically initiated outside the framework of organised health care.

DEMOGRAPHIC VARIABLES

There exists well established relationship between health and gender and age in the utilisation literature. Besides the physiological need for medical care, the elderly and females are known to have greater experience of using different types of sources. The individual differences based on demographic variables were therefore expected to produce some variations in the utilisation behaviour of the present sample.

Gender: Although it is one of the most commonly researched variables, there is comparatively little empirical evidence on its impact in a medically pluralistic setting.

Popular belief is often supported by observational data suggesting that women use

multiple sources more often than men. However, the results of the study, fail to

provide substance to this claim. According to these results, the type of utilisation

behaviour of men and women does not vary. This trend appears to change only

Table 9.4. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS EXHIBITING EXCLUSIVE AND MULTIPLE PATTERNS ACCORDING TO GENDER

	INDIVIDUAL ILLNESS				ILLNESS TYPE			
	EXCLUSIVE		MULTIPLE		EXCLUSIVE		MULTIPLE	
	M	F	M	F	M	F	M	F
ACIDITY	25.0	22.5	25.0	27.5				
'GAS'	30.0	40.0	20.0	10.0				
HEADACHE	30.0	37.5	20.0	12.5	31.0 N=62	34.0 N=68	19.0 N=38	16.0 N=32
CONSTIP'	35.0	40.0	15.0	10.0				
COLD	35.0	30.0	15.0	20.0				
JAUNDICE	40.0	45.0	10.0	5.0	40.0 N=32	41.3 N=33	10.0 N=8	8.8 N=7
TYPHOID	40.0	37.5	10.0	12.5				
B.P.	27.5	35.0	22.5	15.0	28.8 N=23	30.0 N=24	21.3 N=17	20.0 N=16
DIABETES	30.0	25.0	20.0	25.0				
RHEUMAT'	25.5	12.5	25.0	37.5	32.5 N=26	25.0 N=20	17.5 N=14	25.0 N=20
PILES	40.0	37.5	10.0	12.5				
CANCER	32.5	40.0	17.5	10.0	32.5 N=13	40.4 N=16	17.5 N=7	10.0 N=4

percentages based on row totals N=40 per illness M=MALE; F=FEMALE

marginally when controlled for illness type (Table 9.4). Although the utilisation

behaviour of men and women varies for chronic illnesses like B.P., rheumatism,

these differences are not statistically significant for either clustered or individual

illnesses.

The sex-roles in India are well defined. Women are mainly housewives and

enjoy secondary status. As a result, they are more likely to use popular sources

rather than professional care, combine more sources and show greater use of non-Allopathic sources. The patterns of utilisation, although not very dissimilar in most instances, show some sharp gender differences (Table 9.5 and Table 9.6). On the whole women tend to prefer non-Allopathic systems more than men. For example, amongst the exclusive users of *Ayurvedic* system, there are more women than men. However, the patterns within multiple usage show

Table 9.5. PERCENTAGES OF RESPONDENTS EXHIBITING VARIOUS EXCLUSIVE PATTERNS BY GENDER

	EXCLUSIVE USE			
	ALLOPA THY	AYU RVED	HOMOEOP ATHY	POPUL AR
MALES	50.2	47.1	26.7	52.9
FEMALES	49.8	52.9	73.3	47.1

slightly different trends. More men than women move from Allopathic to *Ayurvedic* sources, as well as to both *Ayurvedic* and Homoeopathic systems. However, this trend is reversed in the case of multiple users who move to Homoeopathy. It can be

Table 9.6. PERCENTAGES OF RESPONDENTS EXHIBITING VARIOUS MULTIPLE PATTERNS BY GENDER

	PATTERNS OF MULTIPLE USE						
	ALLO ➡ AYU	ALLO ➡ HOMO	ALLO ➡ AYU, HOMO	ALLO➡ NON-ALLO➡ ALLO	NON-ALLO ➡ NON-ALLO	NON-ALLO ➡ ALLO	ALLO & NON-ALLO
MALE	55.3	41.7	60.0	50.0	50.0	50.0	50.0
FEMALE	44.7	58.3	40.0	50.0	50.0	50.0	50.0

AYU=AYURVEDIC, ALLO=ALLOPATHY, HOMO=HOMOEOPATHIC,
NON-ALLO=NON-ALLOPATHIC SOURCES

said that contrary to the popular belief, women prefer to use Homoeopathic system more than the *Ayurvedic* system. Although the difference is fractional, compared to

men, women use Popular sources less exclusively. This suggests that women tend to rely more on professional sector than men. This is probably due to the fact that in India, men are more mobile than women. It is therefore possible for men to obtain care from semi-professionals and other lay sources.

Age: The older generation is less likely to have been exposed to the processes of westernisation and modernisation - of which Allopathic medicine is an important part. Therefore, their knowledge and use of non-Allopathic sources is expected to be greater. Since these systems are part of their repertoire, older people are more likely to use non-Allopathic sources both exclusively and in combination with Allopathic care.

The results of the study do not suggest significant variations in the types and patterns of utilisation behaviour on account of age. However, there is a slight tendency to use multiple sources before and towards the end of the middle age (Figure 9.8). This is understandable since the vulnerability to an illness, the occurrence of illness and urgency of treatment is greater at either end of the age spectrum. The low volume of multiple utilisation amongst under 25s and over 55s also suggests that the treatment strategies are more defined and standardised during these years. This may be because of relatively less freedom of action in the younger age group, and a reduced need to experiment with different sources or a fixed preferences in the older age group. This certainly contradicts the popular belief that the ailing condition of the aged causes higher multiple usage.

Moreover, age is significant in distinguishing certain patterns within exclusive and multiple usage. It differentiates the popular users from the remaining exclusive users as well as those who sequentially used both non-Allopathic options followed by
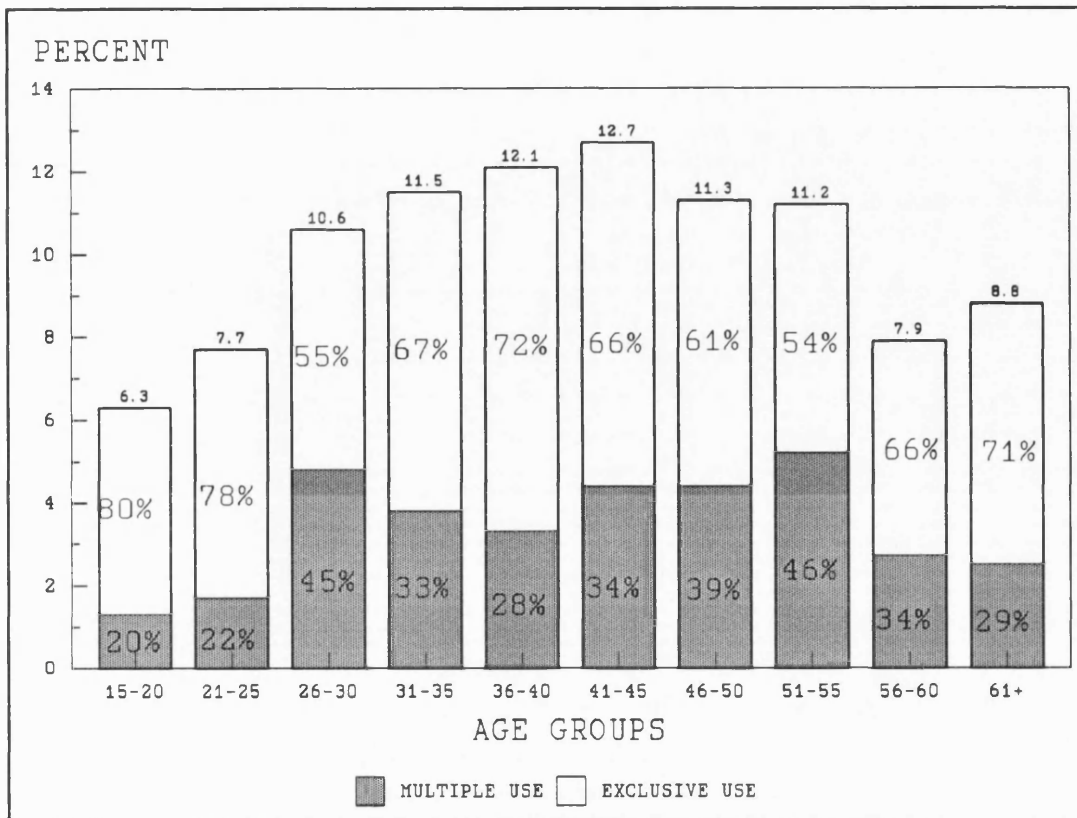
PERCENT

Figure 9.8. **PERCENTAGES OF RESPONDENTS WITHIN EACH AGE GROUP EXHIBITING EXCLUSIVE AND MULTIPLE TYPES OF USAGE**

Allopathy, i.e. Allo.⇒Ayu and Allo.⇒Homo. patterns.   However, there were no significant differences amongst the remaining patterns of exclusive and multiple use for different age groups.

SOCIAL STRUCTURAL VARIABLES

These variables essentially reflect the differences in lifestyles and values. As a result they can exercise a direct as well as indirect influence on utilisation behaviour.

Education: Researchers have found both direct and indirect influence of education on utilisation behaviour. Indirectly, it has been known to affect income and degree of modernisation and westernisation.   Directly, it increases the likelihood of an individual seeking appropriate and timely care.

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The results of the study fail to establish any association between educational attainments and patterns or types of utilisation behaviour. The results suggest that the multiple usage is only marginally lower amongst the educated in comparison to those without any formal schooling. This suggests that access to information as a result of education may reduce, albeit only to a small extent, the need to use multiple sources. On the whole, it was the least discriminatory of all the variables used in the study.

Medium of Instructions: In a multilingual society, differences in the medium of instruction during schooling may influence the level of information and orientation towards science and modernisation. This, in turn, can influence utilisation behaviour. Greater use of Allopathy is expected amongst those receiving education in English. In addition, they are likely to have higher educational qualifications, thereby further reinforcing their highly positive attitude to Allopathy.

As can be seen from Table 9.2, although medium of instruction at school does not distinguish between the exclusive and multiple users, it is significantly associated with the choice of non-Allopathic patterns amongst the exclusive users. That is to say, those educated through Gujarati medium schools were less likely to seek Allopathic care and vice versa. Since most non-Allopathic practitioners are only conversant in vernacular languages, a person educated through Gujarati-medium school is better placed to understand and interact freely with the practitioner. Moreover, as discussed in chapter 8, the medium of instruction was associated with the sources of advice influencing the entry into the professional utilisation phase (Table 8.11). Those educated in English medium school made the decision unaided. These results point to the cosmopolitan and modern orientations of those undergoing education in English and vice versa.

Occupation: Differences in occupation lead to a variety in physical and social environment which can affect the usage behaviour. Moreover, non-medical professionals are better placed when it come to establishing a good rapport with their medical counterparts. As a result, they are less likely to change sources, i.e. they may use exclusive sources more frequently.

The results suggest that all occupational groups are almost similar in their use of exclusive and multiple sources. However, there were some differences in the patterns. Although it failed to identify the exclusive Allopathic users, it distinguished those who used non-Allopathic sources either exclusively or preferred to shift after using Allopathy. Compared to other occupational groups, those engaged in manual work (skilled and unskilled) preferred to use the non-Allopathic system both exclusively or subsequent to Allopathy. These results contradict those obtained by Madan (1969). He found that manual workers relied exclusively on Allopathy. In his sample, professionals readily combined Allopathic with non-Allopathic forms of treatments.

SOCIAL NETWORK VARIABLE

Studies have drawn attention to the active role played by the lay networks in different societies. The collective knowledge of the lay group and active participation in evaluating the outcome of current strategy is expected to increase multiple usage. There are two aspects of this variable, namely the stage-specific as well as overall. While the latter deals with the predisposition of the individual to rely on the lay network on health-related matters, the former deals with the actual participation of the network - irrespective of the orientation of the individual - in revising each of the

treatment strategies.

Stage-specific Sources of Advice and Use: As seen in chapter 8, the lay group remained active - although in varying degrees - throughout the entire course of an illness and was often responsible for influencing the revision of the current treatment strategy. The role of the lay group during the first and the subsequent stages can be summarised as follows. During the first stage, the lay group not only confirmed the diagnosis made by the individual, it also provided treatment based on Popular sources. In the subsequent stages, they play an important role in deciding which form of care to seek. In addition, they continue to provide non-formal treatment.

The lay group was instrumental in revising at least one treatment strategy of more than three out of five multiple users (62%). Nearly a quarter of the multiple users (24%) were advised by the lay group twice or more. On the other hand, nearly three out of five exclusive users (59%) did not seek lay advice at all. It can therefore be said that involvement of the lay group during an illness episode leads to multiple usage and vice versa.

During each treatment stage, relatively higher number of Allopathic users shifted to non-Allopathic systems on the insistence of the lay group than those who made the decision themselves or were influenced jointly by the professional and lay groups (Table 9.7). To illustrate with those who altered their first strategy on their own or on advice of the lay group. Of those who decided themselves, 18% of the non-Allopathic users shifted to Allopathy and 28% of the Allopathic user shifted to the non-Allopathic formal systems. Amongst those made this revision based on lay advice, nearly 35% of the Allopathic users shifted to non-Allopathic systems and none of those using non-Allopathic systems in the first stage shifted to Allopathy. A

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Table 9.7.STAGE-SPECIFIC SOURCES OF ADVICE AND USE

SOURCE OF ADVICE INFLUENCING THE REVISION OF THE TREATMENT STRATEGY	FIRST TO SECOND STRATEGY				SECOND TO THIRD STRATEGY			
	ALLOPATHY TO		NON-ALLOPATHY TO		ALLOPATHY TO		NON-ALLOPATHY TO	
	NON-ALLO	POP	ALLO	POP	NON-ALLO	POP	ALLO	POP
OWN	27.8 N=32	30.4 N=35	18.2 N=4	31.8 N=7	33.3 N=14	23.8 N=10	17.9 N=5	35.7 N=10
LAY NETWORK	34.5 N=40	25.9 N=30	0	20.0 N=1	39.6 N=21	30.2 N=16	23.1 N=3	0
PROFESSIONAL	4.3 N=2	23.9 N=11	25.0 N=1	50.0 N=2	5.0 N=1	10.0 N=17	37.5 N=3	62.5 N=5
PROFESSIONAL & LAY	14.6 N=7	2.1 N=1	33.3 N=1	0	0	0	40.0 N=2	40.0 N=1

EXPECTATION FROM THE NEW TREATMENT STRATEGY	THIRD TO FOURTH STRATEGY				FOURTH TO FIFTH STRATEGY			
	ALLOPATHY TO		NON-ALLOPATHY TO		ALLOPATHY TO		NON-ALLOPATHY TO	
	NON-ALLO	POP	ALLO	POP	NON-ALLO	POP	ALLO	POP
OWN	23.8 N=5	42.9 N=9	7.1 N=1	35.7 N=5	66.7 N=2	33.3 N=1	23.1 N=3	46.2 N=6
LAY NETWORK	41.7 N=5	41.7 N=5	0	35.7 N=5	33.3 N=1	33.3 N=1	0	0
PROFESSIONAL	0	20.0 N=1	14.3 N=1	57.1 N=4	0	0	0	0
PROFESSIONAL & LAY	0	100.0 N=2	50.0 N=1	50.0 N=1	0	100 N=1	0	0

percentages based on proportion of the sample in each stage exhibiting the given movement
Due to exclusion of other movements (e.g. from Allopathy to a simultaneous use of Allopathy and non-Allopathy) the row totals may not be 100 for each movement within a particular stage

similar trend can be observed for those who shifted from second to third, third to fourth, fourth to fifth stages. In a nutshell, the lay group appears to be a champion of non-Allopathic formal and non-formal sources.

Prior Reliance and Overall Use: The active role of the lay groups is expected to extend beyond specific strategies and influence the structure of overall treatment strategy. It is therefore hypothesised that those who have relied on the lay group prior to the onset of the illness under consideration, will exhibit multiple usage.

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The results presented in Table 9.8 confirms that those who tend to rely on lay advice and care prior to the illness, use multiple sources more often than those who preferred to rely either on a professional or no one. The greater use of multiple sources amongst those seeking non-formal sources of advice is the result of the extensive influence the lay group exercises in the Indian context. It is only to be expected that one would take recourse to

Table 9.8. PERCENTAGES OF RESPONDENTS WITHIN EACH SOURCE OF PRIOR ADVICE EXHIBITING EXCLUSIVE AND MULTIPLE USAGE

SOURCE OF ADVICE	TYPE OF UTILISATION	
	EXCLUSIVE	MULTIPLE
NONE	73.7 N=14	26.3 N=5
PROFESSI-ONAL ONLY	72.0 N=167	28.0 N=65
LAY GROUP	59.4 N=136	40.6 N=93

more than one source when there is a continuous flow of diverse medical opinion from several quarters.

The use of multiple sources by those relying on lay groups prior to illness varies according to the illness (χ^2= 30.67 p=.001 df 11). As it can be seen in Table 9.9, they are comparatively more likely to use multiple source in the chronic debilitating illnesses (like rheumatism, acidity, diabetes) for which non-Allopathic sources are popularly believed to be effective. This clearly suggests that predisposition towards lay advice leads to the use of multiple sources especially in chronic illnesses. The utilisation behaviour of their counterparts (those not relying on lay group prior to illness) is not associated with the type of illness.

Although prior reliance on the lay network clearly identifies the type of usage, it is effective in distinguishing only one of the patterns within multiple usage. It identifies those who moved from Allopathic to non-Allopathic and back to the

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Table 9.9. PERCENTAGES OF RESPONDENTS WITH PRIOR RELIANCE ON LAY NETWORK EXHIBITING EXCLUSIVE AND MULTIPLE PATTERNS OF USE WITHIN EACH ILLNESS

		% USING MULTIPLE SOURCES
ACIDITY		68.2
'GAS'		24.0
HEADACHE	29.6	28.0
CONSTIP'		27.8
COLD		44.4
JAUNDICE	33.1	25.0
TYPHOID		41.2
PILES	41.5	9.1
RHEUMAT'		73.9
B.P.	46.9	43.8
DIABETES		50.0
CANCER	39.1	39.1

Allopathic system (Allo.→non-Allo→Allo). Its failure to distinguish other patterns makes the most definitive statement about the role played by lay members in encouraging multiple usage. The individuals exhibiting a reversal to Allopathy were motivated by the lay group to experiment with alternative forms.

BELIEF VARIABLES

Attitudes and beliefs predispose the individual to not only seek health-care but influence the type and manner of seeking care. Despite the weak links between attitudes and behaviour they are popular amongst researchers trying to explain the usage behaviour of an individual. While examining the relationship between the psychological variables and utilisation behaviour, it is important to bear in mind that in the present study, the information on belief variables was gathered retrospectively and along with actual utilisation of sources.

Attitudes to Shopping: The results suggest that the statements eliciting attitudes towards multiple usage are associated with actual utilisation behaviour.

As can be seen from Table 9.1, those with positive disposition, tend to use multiple sources. In order assess the predictive value of the scale, discriminant

Table 9.10. PERCENTAGES OF RESPONDENTS ACCURATELY CLASSIFIED AS EXCLUSIVE AND MULTIPLE USERS BY DISCRIMINANT ANALYSIS BASED ON ATTITUDES TO SHOPPING

ACTUAL GROUP	PREDICTED GROUP	
	EXCLUSIVE	MULTIPLE
EXCLUSIVE N=317	60.9 N=193	39.1 N=124
MULTIPLE N=163	23.3 N=38	76.7 N=125

analysis was carried out. The results displayed in Table 9.10 show that the scale successfully classified two-thirds of the sample (66.2%). Less than a quarter (23%) of the actual users of multiple sources were not accurately classified compared to 39% of the exclusive users. This suggests that the scale is a better predictor of people who used multiple sources than those who used exclusive sources.

The positive attitude towards the use of multiple sources was related to specific patterns within exclusive and multiple use. As can be seen, it identified the exclusive users of *Ayurvedic* and Homoeopathic systems as well as those who experimented unsuccessfully with the non-Allopathic systems. The results may initially appear self-contradictory. On one hand, the users of *Ayurvedic* and Homoeopathic systems are exhibiting exclusive patterns, but on the other, they have positive attitude towards multiple usage. But not necessarily so. They are selectively using the Allopathic and non-Allopathic systems depending on the nature of the illness rather than use them within an illness. That is, their multiple disposition would be evident when their utilisation behaviour is viewed across illnesses. Similarly, although the latter group (Allo.⇒Allo.) is exhibiting a multiple pattern, they in actual fact have a negative attitude towards multiple usage. Due to the nature of their illness and the lay network pressures they resorted to alternative systems but reverted back to their original choice.

Prior Belief in Efficacy of a System: In this study, the respondents were asked to

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Table 9.11. PERCENTAGES OF RESPONDENTS WITH BELIEF IN ALLOPATHIC AND NON-ALLOPATHIC SYSTEMS EXHIBITING EXCLUSIVE AND MULTIPLE PATTERNS OF USAGE

PREFERENCE	TYPE OF USE	
	EXCLUSIVE	MULTIPLE
NON-ALLO.	49.2	50.8
ALLOPATHY	75.9	24.1

state the formal medical system they preferred prior to the onset of the illness under consideration. The results, displayed in Table 9.11 as well as in Figure 9.9 to Figure 9.11 clearly show that the preference for the non-Allopathic systems is more likely to predispose individuals towards multiple usage. Nearly half of those who preferred non-Allopathic systems used multiple sources whereas less than a quarter of those who preferred Allopathy did so. This suggests that the individuals who prefer Allopathy, are less likely to supplement or substitute Allopathy with non-Allopathic options. This is a reflection of the capacity of Allopathy to survive as a self-sufficient system

PRIOR BELIEF IN EFFICACY OF ALLOPATHY & PATTERNS

ALLOPATHY (E) 69%

ALLO & NON-ALLO (M)3%
NON-ALLO=>NON-ALLO(M 1%
ALLO=>ALLO (M) 5%
ALLO=>AYU & HOMO (M) 3%
ALLO=>HOMO (M) 4%
ALLO=>AYU (M) 9%

AYURVED/HOMOEOPATHY 1%
POPULAR ONLY (E) 6%
N=303 (E)=EXCLUSIVE (M)=MULTIPLE PATTERNS
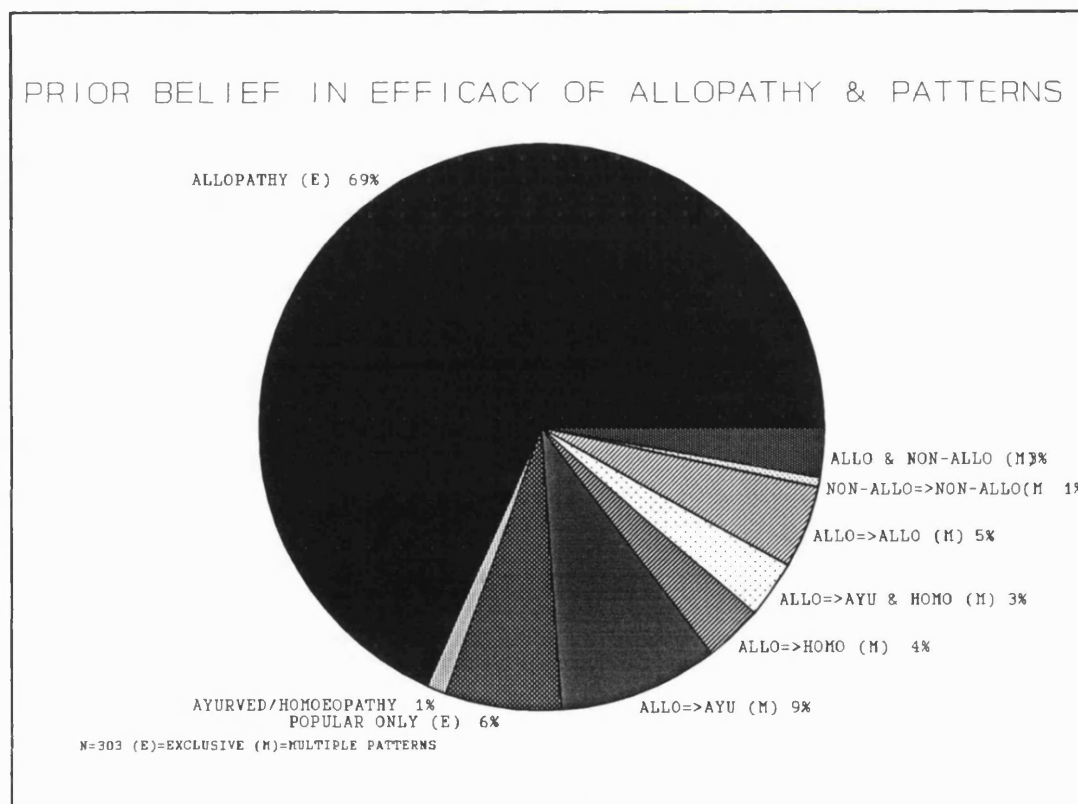
Figure 9.9. PRIOR BELIEF IN EFFICACY OF ALLOPATHY AND PATTERNS OF USAGE

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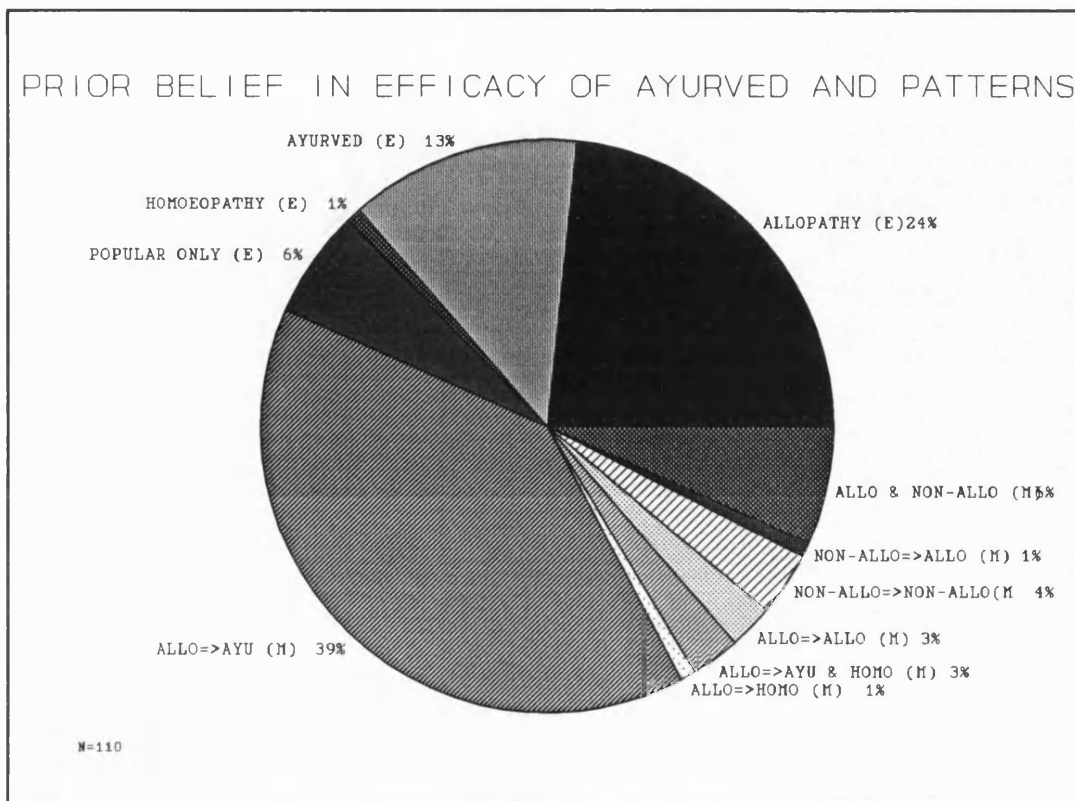
Figure 9.10. PRIOR BELIEF IN EFFICACY OF *AYURVED* AND PATTERNS OF USAGE
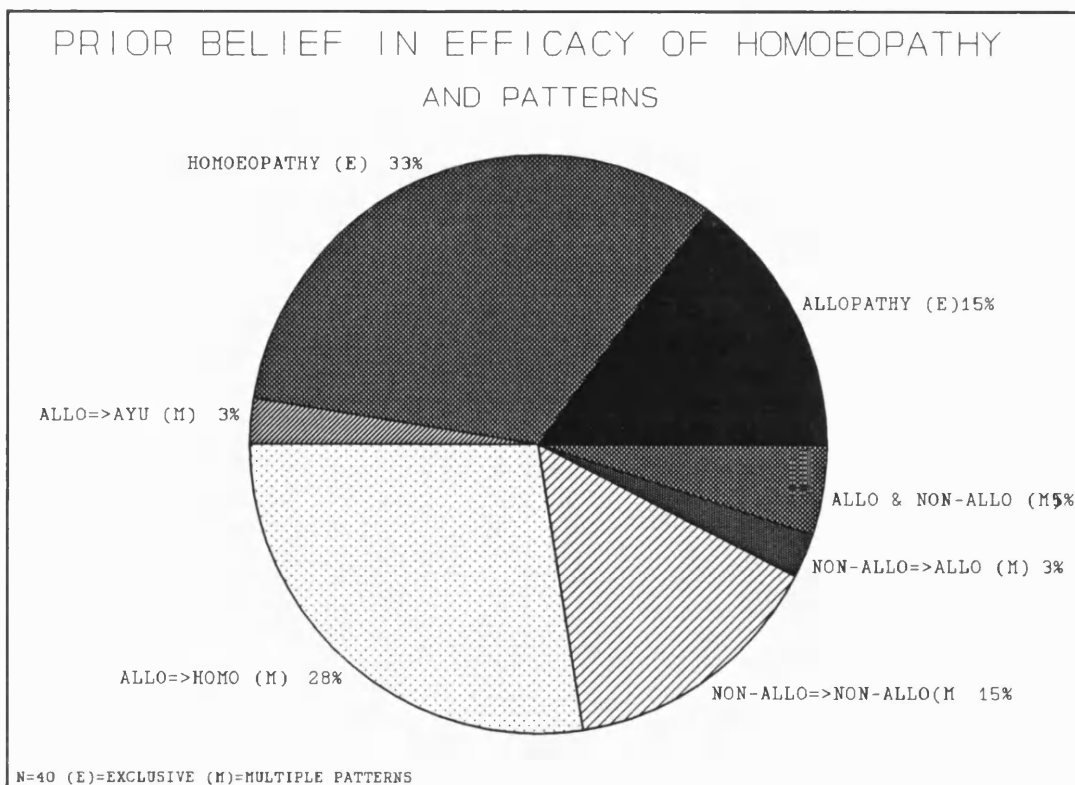
Figure 9.11. PRIOR BELIEF IN EFFICACY OF HOMOEOPATHY AND PATTERNS OF USAGE

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and therefore its overwhelming acceptance in most societies, including India.

Not only does belief in a system distinguish between the exclusive and multiple types, it is the single most powerful predictor across various patterns within the exclusive and multiple types. It failed to determine only one (Allo. & non-Allo.) out of a total of ten patterns included in the analysis. As one would expect, of the two non-Allopathic systems, very small proportion of those who preferred the *Ayurvedic* system shifted to Homoeopathy and vice versa.

9.3.2.2. ENABLING COMPONENT AND UTILISATION BEHAVIOUR

In a medically pluralistic society, the possibilities of obtaining care are important in determining the choice of sources. At times, the distinction between enabling and predisposing variables may appear to be blurred, i.e. the enabling variables often act as predisposing variables and vice versa. The distinguishing feature of the enabling variables is the opportunity they advance of seeking a source of care in actual practice.

FAMILY AND INDIVIDUAL RESOURCE VARIABLES

As an enabling variable, income can influence the type and patterns of utilisation behaviour. Earlier empirical studies suggest that higher income can both increase and decrease the use of multiple sources. For example, one the one hand, higher income means greater purchasing power. Since the rich can afford to seek care - more frequently and from a variety of sources - they are more likely to utilise multiple sources both within and across different systems. On the other, paradoxically lack of financial resources may also encourage lower income groups to use multiple sources. For instance, limited means can force a person to discontinue the Allopathic care - even if it is effective - and turn to cheaper alternatives.

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<u>Income:</u> Income as an enabling variable acquires importance in a developing country like India, where there are vast differences in income levels and no national health service.

The results fail to show any significant association between income levels and the type of utilisation behaviour. This suggests that differences in income levels neither act as a barrier nor facilitate the use of multiple sources. Since, income and occupation are closely related, it is not surprising that either of them is not related to the usage behaviour. This is also reflected in the low rate of discontinuation of treatment due to financial constraints (see under treatment variables for more details).

However, income is significantly associated with certain patterns involving the exclusive and multiple use of the non-Allopathic systems. Whereas higher income groups showed greater exclusive use of Homoeopathy, the opposite trend was evident amongst the *Ayurvedic* users (Table 9.12). A similar trend is observed amongst the multiple patterns

Table 9.12. PERCENTAGES OF RESPONDENTS WITHIN EACH OF THE EXCLUSIVE PATTERNS ACCORDING TO THEIR LEVEL OF INCOME

	EXCLUSIVE USE			
	ALLO	AYU	HOMO	POP
under Rs.1000	23.1	41.2	13.3	32.4
Rs.1000-1999	23.9	35.3	20.0	29.4
Rs.2000-4999	28.3	5.9	20.0	17.6
Rs.5000 &more	24.7	17.6	46.7	20.6

(Table 9.13). Lower classes seem to exhibit patterns involving a movement towards *Ayurvedic* system more frequently and the upper classes towards Homoeopathy. While 61% of those exhibiting Allo.⇒Ayu. patterns belong to lower classes, only 25% of the Allo.⇒Homo. patterns were formed by them. This suggests that of the

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two non-Allopathic systems, Homoeopathy was preferred by the elite and vice versa.

Table 9.13. PERCENTAGES OF RESPONDENTS WITHIN EACH OF THE MULTIPLE PATTERNS ACCORDING TO THEIR INCOME LEVELS

	MULTIPLE PATTERNS OF USE						
	ALLO → AYU	ALLO → HOMO	ALLO → AYU,HOMO	ALLO → NON-ALLO → ALLO	NON-ALLO → NON-ALLO	NON-ALLO → ALLO	AL& NON-ALLO
under Rs.1000	25.7	12.5	13.3	27.8	50.0	0	38.9
Rs.1000-1999	35.1	12.5	20.0	27.8	8.3	50.0	11.1
Rs.2000-4999	16.2	29.2	26.7	22.2	33.3	50.0	38.9
Rs.5000 &more	23.0	45.8	40.0	22.2	8.3	0	11.1

PRIOR ACCESS: One of the most discussed enabling variables is the accessibility. Although various sources are available in theory, they may not be accessible enough to be used regularly. Therefore, the prior users of both Allopathic and non-Allopathic sources on a regular basis are likely to use these sources for the illness under consideration.

Prior Access to Allopathic sources of treatment: The results presented in chapter 8 confirm that the first source of treatment in Bombay is the family doctor. Those having access to such a regular source of treatment sparingly use other types of professionals during the first stage of illness.

Given the predominance of Allopathy, it is expected that those with a regular access are less likely to use multiple sources. The results displayed in Table 9.14, suggest that regular access to a family doctor does not necessarily lead to exclusive usage. People with regular access to Allopathic care are only marginally less likely to supplement their treatment strategies with non-Allopathic sources compared to their

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Table 9.14. PERCENTAGES OF RESPONDENTS WITH AND WITHOUT PRIOR ACCESS TO A FAMILY DOCTOR EXHIBITING EXCLUSIVE AND MULTIPLE USAGE

F.D	TYPE OF USE	
	EXCLUSIVE	MULTIPLE
NO	63.0 N=51	37.0 N=30
YES	66.7 N=266	33.3 N=133

counterparts. Two reasons can be cited to explain this. The first refers to the high accessibility of Allopathy. As seen earlier, nearly four out of five people had access to regular Allopathic care and nearly 86% of them had used Allopathy in their first strategy. The second reason is that it is the exclusive access to Allopathy (i.e. no access to non-Allopathic sources) which determines the type of utilisation behaviour. People who have access to one or more of the Allopathic sources but no access to non-Allopathic sources are more likely to use exclusive sources (χ^2= 43.3 p=.000 df=1). As it can be seen from Table 9.15, less than one out of four people with exclusive access to one or more sources within the Allopathic system switch to non-Allopathic systems. Whereas just over half the sample with access to non-Allopathic sources in addition to the Allopathic sources use multiple sources.

Table 9.15. PERCENTAGES OF RESPONDENTS WITH PRIOR ACCESS TO ALLOPATHIC SOURCES EXHIBITING EXCLUSIVE AND MULTIPLE USAGE

ACCESS	TYPE OF USE	
	EXCLUSIVE	MULTIPLE
ONLY ALLOPATHY	78.1 N=221	21.9 N=62
ALLOPATHY & NON-ALLOPATHY	48.7 N=96	51.3 N=101

Access to a family doctor, does distinguish the exclusive users of Allopathy from others exhibiting exclusive patterns (Table 9.16). Whereas 82% of those with an access to a family doctor used Allopathy exclusively, only 63% of those without access did so. Similarly, 26% of those without access used Popular sources

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Table 9.16. PERCENTAGES OF RESPONDENTS WITH AND WITHOUT ACCESS TO A FAMILY DOCTOR EXHIBITING VARIOUS EXCLUSIVE PATTERNS OF USAGE

ACCESS	EXCLUSIVE USE			
	ALLO	AYU	HOMO	POP
YES	82.3	4.5	5.3	7.9
NO	62.7	9.8	2.0	25.5

exclusively compared to only 8% of those with access. In other words, prior access to a family doctor increases the likelihood of using the Allopathic system exclusively. Its converse with respect to the exclusive dependence on Popular sources is also true. Prior access to a regular source does not affect the use of non-Allopathic sources. All those who shift from Allopathy to Homoeopathy - the only group of multiple users to be identified - had prior access to a family doctor. None of the other patterns have the same proportion of people with access to a family doctor.

Prior Access to non-Allopathic sources of treatment: Almost a third of the sample (34%) had regular and/or occasional access to non-Allopathic sources prior to the onset of the illness under investigation.

The volume of multiple usage is much higher amongst those who have prior access to non-Allopathic sources of care. As displayed in Figure 9.12, only 22% of those who did not have access to non-Allopathic sources exhibit multiple use whereas 43% of those who have access to such
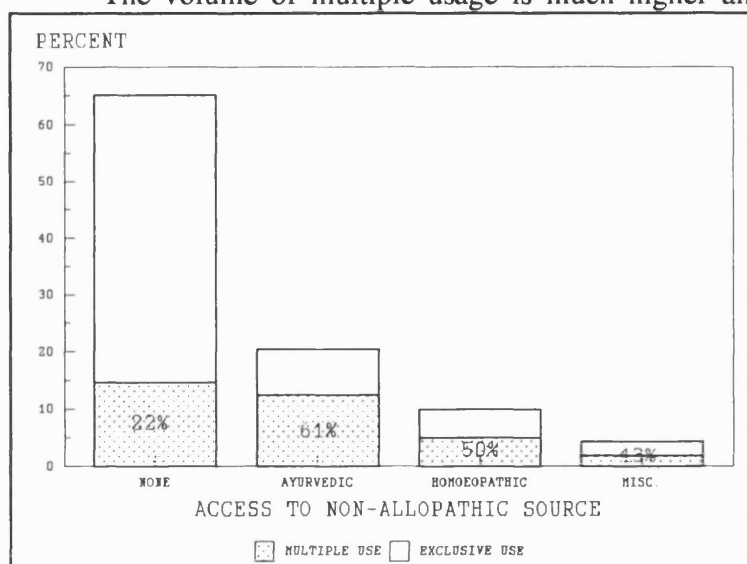
Figure 9.12. PERCENTAGES OF RESPONDENTS WITH PRIOR ACCESS TO NON-ALLOPATHIC SOURCES EXHIBITING EXCLUSIVE AND MULTIPLE PATTERNS OF USAGE

sources change the treatment strategy leading to multiple usage. In short, prior access to non-Allopathic care increases the likelihood of using more than one formal medical system.

Prior access to the non-Allopathic sources is one of the most important explanatory variables. It not only differentiated between multiple and exclusive sources but also specific patterns within each. It identified those who used the *Ayurvedic* and Allopathic sources exclusively as well as two of the multiple patterns (Allo.⇒non-Allo.⇒Allo; non-Allo.⇒non-Allo.). To sum up, those who have had prior experience and access to non-Allopathic sources are more likely to use it and vice versa.

TREATMENT VARIABLES

The effect of the treatment-related variables is assessed at two levels, namely stage-specific and overall.

Treatment Variables of the First Stage and the Overall Usage: Treatment variables which are relevant only to the first stage have been used as determinants of overall utilisation behaviour. This has been done for two reasons, namely the nature of the study and the extensive variety in the manner in which the sources are employed in the subsequent stages.

Scepticism of Care: Lack of faith in the ability of the professional often leads to multiple utilisation behaviour. In the present study, scepticism was measured by asking the respondents to state the extent to which they thought the professional would be able to cure the illness.

The results point towards an association between faith in the source of treatment and type of usage (Figure 9.13). People who expected the current source
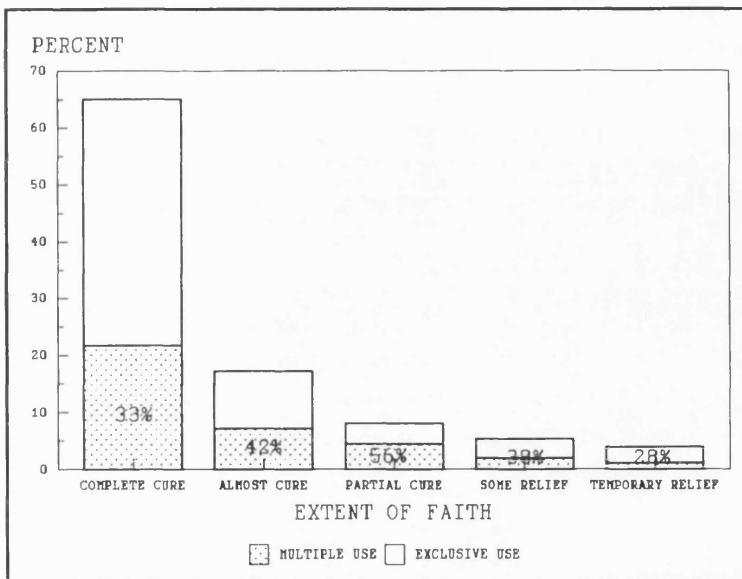
Figure 9.13. **PERCENTAGES OF RESPONDENTS EXHIBITING EXCLUSIVE AND MULTIPLE PATTERNS OF USAGE ACCORDING TO DIFFERENT LEVELS OF SCEPTICISM**

to provide a complete cure were less likely to change sources of care compared to those who expected a partial cure from the beginning. It is interesting to note that those who did not expect a cure but expected temporary relief, were less likely to resort to other orthodox sources of treatment compared to those who expected a partial cure. Perhaps they were not disappointed with the outcome because they did not expect a cure anyway. As a result, they remained within the Allopathic system (by changing sources within it) or shifted to Popular sources instead. Their counterparts on the other hand resorted to an alternative formal source of care.

Whereas scepticism is associated with certain multiple patterns, it fails to identify any of the patterns within exclusive users. It differentiated those who shifted from Allopathy to non-Allopathic systems (Allo.⇒Ayu., Allo.⇒Homo., Allo.⇒non-Allo.). That is to say, those who shifted to non-Allopathic sources has resorted to Allopathy with specific aim (e.g. immediate relief of the symptoms, diagnosis). They did not have any misconceptions about the capacity of Allopathy to cure their illness. As a result, as soon as their goal was achieved they made the transition to an alternative source of their choice.

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<u>Matching Diagnostic Paradigms</u>: One of the often cited explanations for using multiple sources is the incongruence between practitioner's and client's assessment of the illness-situation. As highlighted by some studies, this is especially relevant in the case of a modern, upper class Allopathic practitioner and a traditional, lower class client.

However, the present study fails to establish such links. The number of people shifting to alternate sources in the study sample remained almost the same even when the lay diagnosis did not tally with that of the practitioner's. Moreover, none of the patterns within exclusive and multiple usage were associated with it. The explanation perhaps lies in the fact that there were, as discussed in chapter 8, significant differences between illnesses and the maximum disagreements took place in serious illnesses (B.P., diabetes and cancer). Since manifestation of these illnesses was not indicative of the actual disease, it is not surprising that the respective diagnoses did not tally. Moreover, for these illnesses, patients have little cause for challenging the diagnosis made by an Allopathic doctor.

<u>Accuracy of Professional Diagnosis</u>: The type of utilisation behaviour is associated with accuracy of clinical diagnosis. People are less likely to use multiple sources if the practitioner had recognised the actual illness (χ^2= 5.80 p=.01 df=1). As it can be seen from Table 9.17, whereas only one out of three people (34%) use

Table 9.17. PERCENTAGES OF RESPONDENTS EXHIBITING EXCLUSIVE AND MULTIPLE PATTERNS ACCORDING TO ACCURACY OF PROFESSIONAL'S DIAGNOSIS IN THE FIRST STAGE

ACCURATELY PREDICTED BY PRACTITIONER	TYPE OF USAGE	
	EXCLUSIVE	MULTIPLE
YES	65.6 N=252	34.4 N=132
NO	48.3 N=28	51.7 N=30

multiple sources when the professional could diagnose accurately, one out of two (52%) exhibit multiple usage when the illness was not diagnosed accurately during the first stage. It seems to support the observations that the multiple usage behaviour of people in the subsequent stages is guided by the need to obtain either correct diagnosis and/or treatment.

Level of Satisfaction: Previous studies have found association between utilisation behaviour and the level of satisfaction with the treatment being provided.

The results of the study suggest that the extent of multiple use increases as the level of satisfaction with the source of treatment decreases (Table 9.1). However, satisfaction fails to distinguish between any of the exclusive and most multiple users (Table 9.2 and Table 9.3). Unlike scepticism of care, level of satisfaction is relevant in identifying the multiple users who either decided to try alternative forms but reverted back to their original source (Allopathy) or who changed sources within the non-Allopathic systems.

Compliance with Instructions: In this study, compliance with the instructions of a professional is of limited consequence in determining the nature of utilisation. The volume of multiple usage is only marginally lower for people who complied fully with the instructions (35%) and those who failed to do so (42%). The difference is not statistically significant (χ^2= 1.58 p=.20 df=1). When compliance with practitioner's instruction was treated as a dependent variable, it was not associated with either faith in the practitioner or congruence between lay and professional diagnosis.

Expectations from New Treatment Strategy and Movement Between Sources

While making alterations to the treatment strategy, the patient and/or lay

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Table 9.18. PERCENTAGES OF RESPONDENTS EXHIBITING MOVEMENTS BETWEEN ALLOPATHIC AND NON-ALLOPATHIC SOURCES FOR EACH CATEGORY OF TREATMENT-RELATED EXPECTATIONS

EXPECTATION FROM THE NEW TREATMENT STRATEGY	FIRST TO SECOND STRATEGY				SECOND TO THIRD STRATEGY			
	ALLOPATHY TO		NON-ALLOPATHY TO		ALLOPATHY TO		NON-ALLOPATHY TO	
	NON-ALLO	POP	ALLO	POP	NON-ALLO	POP	ALLO	POP
IMMEDIATE RELIEF	19 N=7	78 N=29	67 N=4	33 N=2	30 N=6	70 N=14	60 N=9	40 N=6
TOTAL CURE	54 N=23	47 N=20	0	60 N=3	73 N=8	18 N=2	14 N=1	43 N=3
FAITH/ PAST EXPERIENCE	60 N=21	37 N=13	0	80 N=4	57 N=8	43 N=6	9 N=1	73 N=4
TRYING NEW SOURCES	74 N=25	27 N=9	0	0	74 N=14	21 N=4	0	0
DIAGNOSIS/ SECOND OPINION ETC	100 N=2	0	100 N=1	0	0	0	0	0
DIAGNOSIS AND CURE	67 N=2	0	50 N=1	0	0	0	100 N=2	0
OTHER	12 N=1	88 N=7	0	100 N=1	0	0	0	0

EXPECTATION FROM THE NEW TREATMENT STRATEGY	THIRD TO FOURTH STRATEGY				FOURTH TO FIFTH STRATEGY			
	ALLOPATHY TO		NON-ALLOPATHY TO		ALLOPATHY TO		NON-ALLOPATHY TO	
	NON-ALLO	POP	ALLO	POP	NON-ALLO	POP	ALLO	POP
IMMEDIATE RELIEF	0	0	0	0	0	50 N=1	50 N=2	25 N=1
TOTAL CURE	25 N=1	75 N=3	14 N=1	43 N=3	0	100 N=1	0	67 N=4
FAITH/ PAST EXPERIENCE	30 N=3	70 N=7	0	67 N=4	50 N=1	50 N=1	25 N=1	75 N=3
TRYING NEW SOURCES	83 N=5	17 N=1	0	20 N=1	100 N=1	0	0	0
DIAGNOSIS/ SECOND OPINION/	0	0	0	0	0	0	0	0
DIAGNOSIS AND CURE	0	0	0	0	0	0	0	0
OTHER	25 N=1	75 N=3	67 N=2	0	100 N=1	0	0	0

percentages based on proportion of the sample in each stage exhibiting the given movement

Due to exclusion of other movements (e.g. from Allopathy to a simultaneous use of Allopathy and non-Allopathy) the row totals may not be 100 for each movement within a particular stage

network has to evaluate the outcome of the current strategy as well as anticipate the effect of the new one. The stage-specific expectations can shed some light on how perception of different sources influence the patterns of usage. As displayed in Table 9.18, whereas the majority of those trying out new sources are moving from Allopathy to non-Allopathic sources, the reverse trend is observed amongst those who were shifting to Allopathy as a result of severe complication or relapse. Similarly, the majority of those shifting to Popular sources from either of the formal systems were doing so mainly for recuperation or from past experience and faith.

Stage-specific Impact of the Treatment Variables: This is assessed through the reasons for discontinuing each of the treatment strategies which were obtained through two sources, namely the close-ended and open-ended questions. Firstly, all respondents were asked to chose the most applicable reason for revising each of their treatment strategies. Secondly, thematic content analysis of the open ended questions eliciting the rationale behind the revision of the old and selection of the new treatment strategy was also carried out. The following discussion begins by looking at the role of financial considerations in revising treatment strategies. Since financial limitations have often been cited as the main reason for multiple usage, greater emphasis has been paid to its role in discontinuation of treatment strategies. Subsequently a brief analysis of other reasons underlying these revisions is undertaken.

Presented in Table 9.19 and Table 9.20 are the various reasons cited by those who continued beyond the first stage for stopping their previous treatment strategies. In order to obtain greater insight, the individuals who eventually obtained total recovery have been separated from those who did not.

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Table 9.19. PERCENTAGES OF RESPONDENTS WITHIN EACH STAGE REPORTING THEIR REASONS FOR DISCONTINUING PREVIOUS TREATMENT STRATEGIES BEFORE RECOVERING TOTALLY

	TOTALLY RECOVERED AFTER TREATMENT STRATEGY					
	SECOND (N=69)	THIRD (N=34)		FOURTH (N=8)		
	REASONS FOR STOPPING STRATEGY					
	I	I	II	I	II	III
SYMPTOMS CURED	26	18	38	38	25	50
ILLNESS CURED FROM "ROOTS"	12	0	0	0	0	0
SYMPTOMS UNDER CONTROL	22	18	27	25	25	13
NOT ENOUGH IMPROVEMENT	17	24	18	13	13	13
NO IMPROVEMENT AT ALL	12	21	3	13	0	0
SIDE EFFECTS	1	9	6	13	0	0
NOT CAPABLE/POSSIBLE	6	6	0	0	13	25
EXPENSIVE	3	3	9	0	25	0
OTHER	1	3	0	0	0	0

Table 9.20. PERCENTAGES OF RESPONDENTS WITHIN EACH STAGE REPORTING THEIR REASONS FOR DISCONTINUING PREVIOUS TREATMENT STRATEGIES FOR THOSE BECOMING STABLE

	STABLE WITH TREATMENT STRATEGY					
	SECOND N=110	THIRD (N=82)		FOURTH (N=55)		
	REASONS FOR STOPPING STRATEGY					
	I	I	II	I	II	III
SYMPTOMS CURED	42	32	38	18	15	42
ILLNESS CURED FROM "ROOTS"	4	1	4	0	4	2
SYMPTOMS UNDER CONTROL	35	34	31	31	38	29
NOT ENOUGH IMPROVEMENT	8	17	11	26	22	11
NO IMPROVEMENT AT ALL	1	9	2	13	2	0
SIDE EFFECTS	1	1	1	9	6	2
NOT CAPABLE/POSSIBLE	0	0	1	2	2	6
EXPENSIVE	6	4	12	2	13	9
OTHER	5	2	0	0	0	0

As in the first stage, the most frequently cited reason for either of the groups

(i.e. stable and cure) refers to incomplete and unsatisfactory cure rather than financial

limitations. Excepting those who were cured after revising their treatment strategies

thrice, less than 13% of the sample had discontinued their strategy as a result of cost

considerations. This is holds true across illnesses. At the most 8% of the illness-

specific sample decided to stop their treatment as a result of financial limitations

(Table 9.21). Naturally, almost everyone (91%) who had stopped treatment for this

Table 9.21. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING FINANCIAL CONSTRAINTS AS THE MAIN REASON FOR DISCONTINUING EACH OF THE TREATMENT STRATEGIES

STRATEGY	ILLNESS TYPE				
	COMMON	JAUNDICE TYPHOID	PILES RHEUMATISM	B.P. DIABETES	CANCER
FIRST	3.4	0	3.9	7.5	0
SECOND	5.9	2.5	8.0	6.3	5.7
THIRD	3.3	· 0	4.8	8.1	0
FOURTH	0	0	0	0	7.1
FIFTH	0	0	0	0	0

reason belonged to lower income groups (earning less than Rs.2000 a month). Since

a quarter of the present sample belonged to lower classes, a much higher proportion

of sample would have been expected to discontinue treatment as a result of limited

finances.

Thematic content analysis carried out on stage-specific open-ended questions

eliciting respondent's rationale for revising the old treatment strategy and selecting

the new one reinforce the above results. As can be seen from Table 9.22, at the

most one in four mentioned financial considerations. It is not difficult to comprehend

Table 9.22. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS TYPE REPORTING FINANCIAL CONSTRAINTS FOR EACH OF THE TREATMENT STRATEGIES IN OPEN-ENDED QUESTIONS

FINANCIAL CONSIDERATIONS WHICH PROMPTED	COM-MON	JAUNDICE TYPHOID	PILES RHEUMATISM	B.P. DIABETES	CAN-CER
FIRST STRATEGY	12.5	1.3	16.4	3.8	5.0
SECOND STRATEGY	15.3	5.0	9.3	18.8	5.7
THIRD STRATEGY	20.0	11.1	9.5	16.2	11.1
FOURTH STRATEGY	17.5	0	0	9.1	21.7
FIFTH STRATEGY	10.0	0	14.3	25.0	0

why, in non-serious illnesses (common and chronic) a much higher proportion pays attention to financial considerations across various stages but not in cancer or self-limiting illnesses. This probably reflects the fact that both are life threatening illnesses. However, the remaining group (serious-chronic) may appear to contradict this. Like cancer, both B.P. and diabetes can be fatal, yet the proportion is relatively higher. Perhaps the answer lies in two opposite processes. Firstly, it is popularly believed that a cheaper and more effective alternative treatment for diabetes is being provided by the *Ayurvedic* system. Secondly, many had resorted to Allopathic specialists/consultants as a result of complications in the previous stage. Once the condition had become stable, many felt it was unnecessary to continue with the expensive treatment which could be easily provided by their family doctor at much less cost.

The question which arises from the above discussion is, if cost is not one of the most frequently considered criterion for discontinuing treatment, then which one is it?

The answer seems to be dissatisfaction with the treatment. However, an

interesting trend can be observed amongst those who revise their treatment strategies more than twice. Relatively higher number of patients stop earlier treatment strategies but not necessarily the penultimate one as a result of insufficient or no improvement. In both groups (totally cured and stable) there is a fall in the proportion of individuals who stop their treatment strategy as a result of dissatisfaction in the penultimate stage. To illustrate with those who get cured after three strategies. Whereas 45% of them stopped their first strategy as a result of dissatisfaction, only 21% did so in the next stage, i.e. before getting cured. An explanation may lie in the fact that the combination of sources were effective in partially curing the illness in the penultimate stage. This is evident from the corresponding increase in the number of people who discontinued their penultimate strategy as a result of successful treatment (symptomatic relief or control of illness). Many of them used Popular sources for recuperation in the next stage, i.e. the final stage before withdrawing completely. A similar drop in the penultimate stage can be observed for those who become stable with the next strategy. For example, 26% of those who became stable with the third strategy had stopped their first strategy after being dissatisfied but only 13% did so in the penultimate stage.

It seems that the interplay between dissatisfaction with treatment and use of non-Allopathic systems for recuperation and tertiary cure, rather than cost of treatment, are the main triggers for discontinuing the current strategy in favour of a new one.

9.3.2.3. ILLNESS COMPONENT AND UTILISATION BEHAVIOUR

The illness component is both an interesting as well as important determinant of utilisation behaviour. As discussed in chapter 8, differences in the utilisation

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behaviour of people within the same type of illness can be a result of differences in the nature and intensity of the illness in an individual.

The illness component comprises two groups of variables. The first focuses on specific hypothesis referring to the initial manifestation of illness whereas the second deals with the type of illness. While the former attempts to link different characteristics within an illness which have been identified by earlier studies, the latter identifies the impact of variations between illnesses on utilisation behaviour.

MANIFESTATION OF ILLNESS

As discussed in chapter 2, researchers have linked differential utilisation of sources to attribution of causes or labelling of the illness based on initial symptomatology. It is the contention of the present study, supported by the results presented in chapter 8, that manifestation and management of illnesses undergo several changes and the overall utilisation behaviour is an emerging pattern rather than one which is decided during the initial phase.

Preliminary Attribution of Cause: The initial etiology is expected to influence the nature of utilisation behaviour. The causes included in the study fall into four broad categories namely: Allopathic (e.g germs, lack of hygiene), *Ayurvedic* (e.g. *prakriti, tri-dosha*), supernatural (e.g. fate) and causes common to both Allopathy and *Ayurveda* (e.g. stress, old age). Studies have identified that illnesses which are attributed to natural causes are treated with Allopathy and vice versa.

As can be seen from Table 9.23, people who attributed their illnesses to *Ayurvedic* or supernatural causes are more likely to use multiple sources for treatment than those who attribute their illnesses to the other two categories of causes. For example, nearly half of those who attributed the infliction to their *prakriti*, imbalance

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Table 9.23. PERCENTAGES OF RESPONDENTS EXHIBITING EXCLUSIVE AND MULTIPLE PATTERNS OF USAGE IN EACH OF THE CAUSAL CATEGORIES

CAUSE	TYPE OF USE	
	EXCLUSIVE	MULTIPLE
CHANGE OF SEASON	65.1	34.9
HEREDITY	70.6	29.4
'PRAKRITI'	57.4	42.6
'TRI-DOSHA'	46.2	53.8
VIRUS,INFECTION	73.1	26.9
STRESS & WORRIES	59.2	40.8
IRREGULARITY IN DAILY ROUTINE	65.9	34.1
FAULTY DIETARY HABITS	65.0	35.0
LACK OF HYGIENE	75.0	25.0
NEGLECT	69.1	30.9
FATE/EVIL EYE	53.3	46.7
CITY LIFE	66.7	33.3
OLD AGE	72.9	27.1
LACK OF EXERCISE	62.5	37.5
LONG EXPOSURE TO HOT/COLD WEATHER	69.4	30.6
OTHER	60.6	39.4

percentages based on total number of positive responses to each category

of *tri-dosha* or supernatural causes used multiple sources. On the other hand, only a quarter of those who believed their infliction to be a result of micro organisms like viruses used multiple sources. In order to assess whether attribution based on *Ayurvedic* paradigm leads to greater use of *Ayurvedic* sources, two representative categories (*tri-dosha* and *prakriti*) were isolated for further analysis. Similarly, two typically Allopathic attribution categories (infection and lack of hygiene) were used. The cross-tabulation results, however, suggest that none of the exclusive or multiple patterns were significantly associated with these categories. It is therefore, safe to conclude that the preliminary attribution is not necessarily indicative of the overall utilisation behaviour.

As discussed in chapter 8, the preliminary attribution of cause often influences the immediate treatment procedures in the first stage. For example, the majority of

the cancer patients attributed their initial symptoms to causes which were remotely linked to cancer (e.g. sore throat, bleeding gums). As a result, their initial treatment consisted mainly of home remedies. Nearly half of the respondents suffering from typhoid and jaundice attributed the cause to bad eating habits and sought professional help immediately on noticing the symptoms.

Accuracy of Lay Diagnosis: As seen in chapter 8, not all illnesses are amenable to easy diagnosis. It is possible that an illness with high degree of uncertainty would lead to frantic efforts to obtain cure with various available means. This in turn would encourage multiple utilisation. The search for cure will be more focused and discrete in illnesses which are clearly defined at the onset. But the results of the study, presented in Table 9.24, fail to establish any connection between accuracy of lay diagnosis at onset and the type of utilisation ($\chi^2 = 2.19$ p=.13 df=1). This means that the extent of multiple usage amongst people who could diagnose the illness and those who failed to was the same. And this is equally true for all types of illnesses. That is to say, the accuracy of diagnosis made during the initial period is unlikely to reflect the ultimate course of the utilisation behaviour. At the most, the diagnosis made of the illness at the symptom experience stage may affect the utilisation behaviour only for the first stage.

Table 9.24. PERCENTAGES OF RESPONDENTS EXHIBITING EXCLUSIVE AND MULTIPLE PATTERNS OF USAGE AND THE ACCURACY OF LAY DIAGNOSIS

ACCURATE DIAGNOSIS	TYPE OF USAGE	
	EXCLUSIVE	MULTIPLE
YES	39.1 N=124	46.6 N=76
NO	60.9 N=193	53.4 N=87

Accuracy of lay diagnosis is associated with two exclusive patterns, but none

of the multiple ones. Nearly 93% of the exclusive Homoeopathic users and 100% of the Popular users (i.e. those who did not resort to professional sector at all) were able to accurately identify their illnesses.

Initial Nature of Symptoms: Several studies have suggested that people classify illness into several groups and accordingly choose the source of care. Characteristics like perception of severity and interference of the routine play an important role in determining the choice of sources. Gould (1965), for example, identified that illnesses with severe onset were taken to Allopathic care and vice versa.

The results suggest that the initial manifestation of symptoms is related to specific patterns rather than type of usage. Those resorting to exclusive usage of Homoeopathy and Popular sources as well as multiple users moving from Allopathy to either of the non-Allopathic systems were identified on the basis of this variable. Relatively speaking, the former, i.e. the exclusive users did not considered their illness manifestation to be as serious, painful, disruptive and anxiety provoking as their multiple counterparts. The initial nature of the illness, as discussed in chapter 8, is also linked to the immediate use of Allopathy, i.e. the first strategy. Only 5% of those who sought Allopathic professional's help immediately on noticing the symptoms, reported their symptoms to be mild (i.e. slightly or not at all serious, painful, worrying and disruptive). Nearly 72% those who rushed to an Allopathic doctor felt their symptoms to be severe (i.e. extremely or very serious, painful, worrying and disruptive).

As described in chapter 8, intensification of symptoms during the subsequent stages resulted in evaluation and corresponding changes in the current treatment strategies. That is to say, persons experiencing severe symptoms are more likely to

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act quickly, take fewer chances and use other forms of treatment simultaneously due

to the extremity of the situation.

Illness Characteristics and Movement Between Sources: Alterations in illness

manifestations result in revision of treatment strategy. These revisions may result in

a shift from Allopathic to non-Allopathic systems and vice versa (Table 9.25). As

Table 9.25. PERCENTAGES OF RESPONDENT WITHIN EACH STAGE SHOWING DIFFERENT MOVEMENTS BETWEEN ALLOPATHIC AND NON-ALLOPATHIC SOURCES ACCORDING TO DIFFERENT ILLNESS CHARACTERISTICS

CHARACTERISTICS OF THE ILLNESS WHICH PROMPTED THE NEW TREATMENT STRATEGY	FIRST TO SECOND STRATEGY				SECOND TO THIRD STRATEGY			
	ALLOPATHY TO		NON-ALLOPATHY TO		ALLOPATHY TO		NON-ALLOPATHY TO	
	NON-ALLO	POP	ALLO	POP	NON-ALLO	POP	ALLO	POP
PERSISTENCE OF SYMPTOMS	55 N=65	44 N=52	13 N=1	50 N=4	59 N=26	36 N=16	33 N=9	44 N=12
DESIRE TO PREVENT FURTHER ILL-HEALTH/RECUPERATION	19 N=5	77 N=20	0	100 N=7	50 N=4	50 N=4	20 N=1	80 N=4
COMPLICATIONS or SEVER RELAPSE	100 N=2	0	100 N=5	0	80 N=4	20 N=1	60 N=3	0
NATURE OF ILLNESS (severity,pain,disruption)	58 N=7	42 N=5	50 N=1	0	17 N=1	83 N=5	0	0
OTHER	67 N=2	33 N=1	0	0	33 N=1	67 N=2	0	100 N=1

CHARACTERISTIC OF ILLNESS WHICH PROMPTED THE NEW TREATMENT STRATEGY	THIRD TO FOURTH STRATEGY				FOURTH TO FIFTH STRATEGY			
	ALLOPATHY TO		NON-ALLOPATHY TO		ALLOPATHY TO		NON-ALLOPATHY TO	
	NON-ALLO	POP	ALLO	POP	NON-ALLO	POP	ALLO	POP
PERSISTENCE OF SYMPTOMS	50 N=10	50 N=10	6 N=1	63 N=10	60 N=3	20 N=1	30 N=3	50 N=5
DESIRE TO PREVENT FURTHER ILL-HEALTH/RECUPERATION	0	100 N=6	0	83 N=5	0	100 N=2	0	100 N=1
COMPLICATIONS or SEVER RELAPSE	0	0	67 N=2	0	0	0	0	0
NATURE OF ILLNESS (severity,pain,disruption)	0	0	0	33 N=1	0	0	0	0
OTHER	0	0	0	0	0	0	0	0

percentages based on proportion of the sample in each stage exhibiting the given movement

Due to exclusion of other movements (e.g. from Allopathy to a simultaneous use of Allopathy and non-Allopathy) the
    row totals may not be 100 for each stage

can be seen from the majority of those who revised their treatment strategies as a result of complications (or severe relapse), prefer to seek Allopathy. Similarly, majority of those citing preventive or recuperatory reasons shift to Popular sources. Persistence of symptoms prompts most to shift from Allopathy to non-Allopathic rather than Popular sources.

TYPE OF ILLNESS

Systematic comparisons of different illnesses is still at an exploratory stage within the literature on utilisation behaviour. While referring to the influence of different types of illnesses on usage, Colson (1971 p.228) has remarked,

> "Though widely reported in review articles, this provocative hypothesis has not been systematically retested."

Although the type of illness may be a powerful indicator of subsequent utilisation, there is a general lack of consensus regarding the nature of its influence. On one hand, in serious illnesses like cancer people can adopt the "shot-gun approach" (Lasker, 1981) and use all available sources in the hope that something will cure the illness. On the other hand, people may prefer to rely on established procedures to ensure a successful treatment. Instead, people may prefer to experiment with alternative sources in order to effect a permanent cure in the case of "chronic nonincapacitating dysfunction" (Gould, 1957) like rheumatism.

The results of the study presented in Figure 9.14 show that the extent of multiple usage is not the same for individual illnesses (χ^2= 36.6 p=.000 df=11) as

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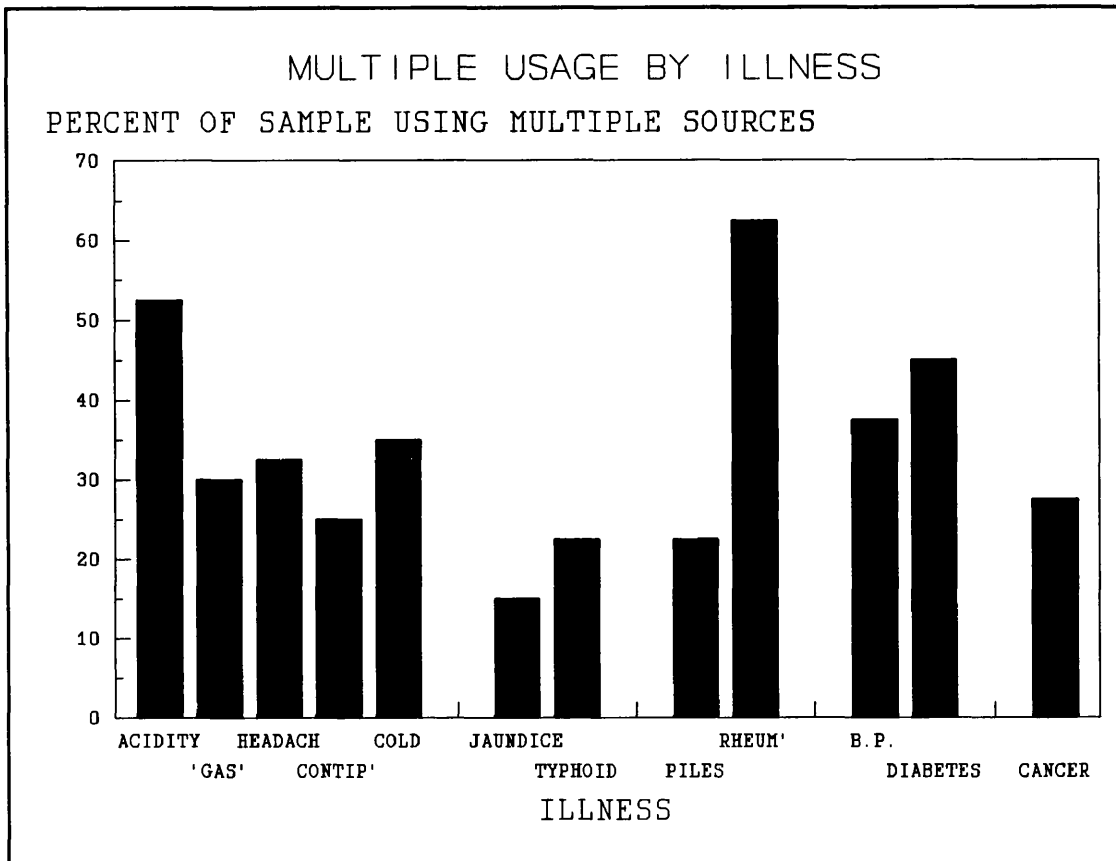
Figure 9.14. PERCENTAGES OF RESPONDENTS WITHIN EACH ILLNESS EXHIBITING MULTIPLE PATTERNS OF USAGE

well as clustered illnesses(χ^2= 13.59 p=.008 df=4)[1]. To illustrate, for self-limiting illnesses less than a quarter of the sample prefers to use multiple sources, whereas in a non-serious chronic illness like rheumatism nearly two thirds of the sample resorts to multiple usage.

It is interesting to note that the volume of multiple usage is almost the same for serious illnesses like cancer as for common illnesses (except acidity). This indicates that the sample does not seem to prefer the "shot gun approach" in serious

[1]There are no significant difference in the type of utilisation behaviour for illnesses within each cluster, excepting one. The utilisation behaviour of piles and rheumatism - otherwise members of one cluster - differs markedly (χ^2= 11.5 p=.000 df=1). This is perhaps because of the varying prognosis of piles as an illness. In some people it tends to be chronic (like rheumatism) whereas in the others it can be of shorter duration and often surgically terminated.

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illnesses. Instead, they seem to approach serious illnesses rather conservatively, by resorting only to one system, usually Allopathy. In the case of cancer (Figure 9.5), what is characteristic is the extensive use of Allopathy either exclusively (73%) or prior to non-Allopathic sources (27%). All multiple users had first tried Allopathic treatment. They sought alternative sources only after it was not possible to obtain further treatment (either because the treatment had failed or the illness had advanced considerably). The relatively lower volume of multiple usage for serious illnesses does not necessarily mean that there is complete reliance on one source of treatment. The exclusive users in the sample tend to supplement and fortify the form of treatment with Sacred and Popular sources. For example, 68% of the cancer patients used one or more Sacred sources simultaneously at least once during the course of the illness.

However, the volume of multiple usage is relatively higher for some of the serious chronic illnesses (Figure 9.4). As can be seen, one in three people suffering from either of the illnesses, tend to shift from the Allopathic to the non-Allopathic systems. In the case of diabetes, nearly one in two people resorted to multiple sources. This recourse to non-Allopathic systems for potentially fatal illnesses was higher than expected. This may be because of two reasons, namely popular belief in the efficacy of *Ayurveda* in the case of diabetes and, due to favourable advertising in the case of cancer. Some of these beliefs and claims, as the data suggests, are not entirely baseless while others are. For example, three out of four diabetes patients reported being cured with *Ayurvedic* medicines as against only one with Allopathy. Similarly in B.P., one out of two respondents reported being cured with *Ayurvedic* system as opposed to only one out ten with Allopathy. On the other hand for cancer,

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although seven people tried *Ayurvedic* system only one reported complete cure. The rest of the respondents use *Ayurvedic* system as a therapy of last resort after learning that Allopathy cannot offer a cure.

The non-serious common (Figure 9.1) and chronic (Figure 9.3) illnesses are treated with all permutations of the Allopathic and non-Allopathic systems. However, the exclusive use of Allopathy is much lower in both instances. For example, in the chronic non-serious illnesses only 41% of the sample has used Allopathy exclusively. The remainder used formal and non-formal non-Allopathic sources either exclusively or in combination. As can be seen, all eleven patterns of utilisation behaviour are exhibited by the sample. It can therefore be inferred that the extent of multiple usage and the variety of patterns is greater for chronic than serious illnesses.

The importance of the role played by the illness component is evident when the utilisation behaviour of the current illness is compared with that of the previous behaviour. If the episode specific utilisation behaviour of significant numbers of individuals is markedly different from their prior behaviour (i.e. before the onset of the illness under consideration), then one can conclude that characteristics of illness influences or determines the utilisation behaviour. While 6% of the multiple users briefly experimented with a formal source which they had hardly ever used before, nearly 24% tried a new source for the first time and used it on a regular basis until they were cured. Although these first time users were distributed across illness types, the majority belonged to cancer and chronic (serious and non-serious) illnesses rather than common and almost none to self-limiting illnesses.

It is interesting to note that, none of the patterns within exclusive and multiple

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usage (except the exclusive users of Allopathy) could be identified on the basis of illness type. In other words no specific pattern, except one, is associated with particular illness type. Only the exclusive users of Allopathy can be distinguished from other exclusive users. Although the proportion of different multiple patterns varied according to the illness type, there were no significant differences.

As a next step, the possible effect of several variables, i.e. collective determinants on the patterns of utilisation behaviour needs to be analyzed.

9.4. COLLECTIVE DETERMINANTS OF UTILISATION BEHAVIOUR

Very few studies carried out in the non-Western medically pluralistic cultures deal simultaneously with the association of several explanatory variables in determining utilisation behaviour. Besides that, their findings are at times confusing. It was therefore imperative to systematically establish the relationship between several explanatory variables and the outcome variable. Given the variety in the patterns of utilisation and the nature of the study, the GLM used in the current analysis was developed by first concentrating on the proportion of the multiple users to the exclusive ones. Subsequently, GLMs contrasting various patterns within multiple and exclusive users were developed.

9.4.1. COLLECTIVE DETERMINANTS OF MULTIPLE UTILISATION BEHAVIOUR

The final model presented in Table 9.26 is developed by successively adding the explanatory variables to the *null* model. In short, each level displays the effect of the new variable when added to the previous model. Since the C.S.Ds. of other variables and the interaction effects (second and third order) when added to this

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Table 9.26. STATISTICAL MODELLING: RESULT ONE

	C.S.D.*	df
NULL MODEL (S.D.=615.13 df=479)		
ILLNESS TYPE	14.70	4
+ LAY ADVICE	9.65	1
+ BELIEF IN EFFICACY OF SYSTEM	41.61	3
+ ACCESS TO NON-ALLO.	22.76	1

*C.S.D. refers to the change in scaled deviance or S.D.

model are not significant, the final model is made of four main effects[2]. In short, the users of multiple sources can be distinguished on the basis of the illness type, prior reliance on the lay network, belief in the efficacy of the non-Allopathic system, and prior access to non-Allopathic sources. Essentially these variables represent each of the three groups of explanatory variables included in the multi-dimensional model. It is therefore safe to conclude that the type of utilisation behaviour is a joint function of predisposing (social and psychological), enabling (access) and illness variables (illness type)[3].

The order of entry was reversed to see the effect of the illness type after controlling for other predisposing and enabling variables (Table 9.27). The illness variable continues to be significant when the effect of other variable (including age) is controlled.

Although the inclusion of access to non-Allopathic sources and belief in their efficacy in the final model may be stating the obvious, their significant contributions

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[2]The C.S.D. is checked against the theoretical χ^2 distribution for the given degree of freedom (df).

[3]It should be borne in mind that there is nothing like the "best" model and that the same data can give rise to more than one model.

Table 9.27. STATISTICAL MODELLING: RESULT TWO *Results: part II*

	C.S.D.*	df
NULL MODEL (S.D.=615.13 df=479)		
BELIEF IN EFFICACY OF SYSTEM	43.57	3
+ ACCESS TO NON-ALLOPATHIC SOURCE	17.57	1
+ LAY ADVICE	2.1	1
+ ILLNESS TYPE	25.77	4

*C.S.D. refers to the change in scaled deviance or S.D.

in accounting for the systematic variation in the modelling cannot be overlooked. Moreover, both variables are making an important statement. Prior belief and access tends to establish rules of thumb regarding the optimum treatment strategy. Favourable perception and evaluation of non-Allopathic systems can reinforce and motivate the individual to maximise the gains either by switching to alternative sources or simultaneously using several sources.

To conclude, an individual is prone to use multiple sources when suffering from chronic illnesses, used to relying on lay advice, prefers non-Allopathic systems and already has an access to a non-Allopathic sources of care.

9.4.2. COLLECTIVE DETERMINANTS OF EXCLUSIVE PATTERNS

In the case of the Allopathic users, the explanatory variables were significantly related to the predisposing (belief), enabling (prior accessibility) and illness variables. In other words, those who had a preference and access only to an Allopathic source ended up as exclusive users of Allopathy. Similarly, those suffering from serious (cancer, B.P. and diabetes) and self-limiting (jaundice and typhoid) illnesses used the Allopathic system the most. The GLM of the exclusive Allopathic users suggests that given the type of illness and the belief in the efficacy, it would be possible to identify these users.

The *Ayurvedic* users almost always indicated a preference for non-Allopathic system and a positive attitude to shopping. Most had been to Gujarati medium schools. They generally belonged to the lower income groups and were employed as manual workers. Contrary to popular belief and empirical evidence, women did not use the *Ayurvedic* sources any more than men. The exclusive use of the *Ayurvedic* system is confined only to illnesses which are not considered to be serious. Their GLM suggests that exclusive users of *Ayurvedic* sources can be predicted by knowing their belief in the efficacy of the system and medium of instruction at school.

The profile of the Homoeopathic users is an interesting contrast to that of its other non-Allopathic cousin. Firstly, two out of three Homoeopathic users are women. Secondly, they invariably belonged to the higher income groups and were educated in English or mixed medium schools. Needless to say, they also indicated a preference for the Homoeopathic system, had a positive attitude to using multiple sources and had a regular access to a Homoeopathic practitioner. Thirdly, although both the *Ayurvedic* and the Homoeopathic systems were resorted to for illnesses which are not serious, there were subtle differences in their applications. Whereas the *Ayurvedic* system was preferred for constipation, piles and jaundice, Homoeopathy was for 'gas', colds and acidity.

The exclusive users of Popular sources, like the *Ayurvedic* users belonged to the lower income groups. They used Popular sources for common illnesses (headaches, constipation, piles and colds). This is probably a reflection of the extensive use of *Ayurvedic* remedies as home remedies. Although the difference is fractional, fewer women than men used Popular sources exclusively.

It can therefore be said that the users of each of the non-Allopathic systems

can be distinguished mainly on the basis of the enabling and the predisposing variables. But in the case of the Allopathic users, the type of illness is also of considerable significance.

9.4.3. COLLECTIVE DETERMINANTS OF MULTIPLE PATTERNS

The GLMs of each of the patterns of multiple usage suggest that those who show a preference and have an access to the non-Allopathic sources are likely to exhibit shifts in the treatment strategy. Secondly, the profiles of those moving from the Allopathic to the *Ayurvedic* or Homoeopathic systems are similar to the exclusive users of the non-Allopathic systems. Their movement was geared to non-Allopathic sources but nevertheless they turn to Allopathy for specific purposes like initial diagnosis and immediate relief. The majority of those moving from Allopathy to both the *Ayurvedic* and Homoeopathic systems in the subsequent stages were basically seeking a source they had prior experience and faith in. Those moving to non-Allopathic systems before reverting to Allopathy were searching for the most appropriate form of cure. People who moved within the non-Allopathic systems had prior access and belief in the efficacy of these systems. Those who simultaneously used Allopathy with non-Allopathic systems can only be marginally differentiated with the help of their positive attitude towards shopping.

9.5. SUMMARY AND CONCLUSION

The results of the study discussed in this chapter are presented in Table 9.28. These findings together with those presented in chapter 8 can be summarised as follows:

Table 9.28. SUMMARY OF FINDINGS

	SUBCOMPONENT	INDICATOR	EXCLUSIVE v/s MULTIPLE type		EXCLUSIVE PATTERNS				MULTIPLE PATTERNS					
			COLLECTIVE	INDIVIDUAL	AL	AY	HO	PO	AL→AY	AL→HO	AL→NAL	AL→NAL→AL	NAL→NAL	AL&NAL
P R E D I S P O S I N G	DEMOGRAPHICAL	GENDER					✓							
		AGE						✓			✓			
	SOCIO-STRUCTURAL	EDUCATION												
		MEDIUM AT SCHOOL				✓	*			*				
		OCCUPATION				*	✓	✓	✓	✓	✓			
	BELIEF	EFFICACY OF SYSTEM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		ATTITUDE TO SHOPPING		✓		✓	✓					✓		*
	SOCIAL NETWORK	PRIOR RELIANCE ON LAY GROUP	✓	✓								*		
		STAGE-SPECIFIC INFLUENCE OF LAY GROUP												
E N A B L I N G	FAMILY & INDIVIDUAL RESOURCES	INCOME				*	✓		✓	✓			*	
		PRIOR ACCESS TO ALLOPATHY (F.D)			✓			✓		✓				
		PRIOR ACCESS TO NON-ALLOPATHY	✓	✓	✓	✓						✓	✓	
	TREATMENT	LEVEL OF SCEPTICISM		✓					*	✓	✓			
		LEVEL OF SATISFACTION		✓					*			✓	✓	
		COMPLIANCE WITH INSTRUCTION												
		MATCH: LAY & PROFESSIONAL DIAGNOSIS						N/A						
		STAGE-SPECIFIC TREATMENT VARIABLES												
I L L N E S S	TYPE	ILLNESS TYPE	✓	✓	✓									
	MANIFESTATION OF ILLNESS	ACCURACY OF LAY DIAGNOSIS					✓	✓						
		INITIAL NATURE OF SYMPTOMS					✓	✓	✓	✓		✓		
		STAGE-SPECIFIC ILLNESS VARIABLES												

KEY: ✓=significant at $p < .05$, *= significant at $p < .1$, AL=Allopathy, AY=*Ayurveda*, HO=Homoeopathy, PO=Popular, NAL=non-Allopathic systems, N/A Not applicable

USE OF MULTIPLE FORMAL SYSTEMS:

1. Between 18-42% of the respondents within each illness cluster resorted to more than one formal system.

2. Variables belonging to all three components collectively determined the multiple type of utilisation behaviour. They were social and belief variables (predisposing), access to non-Allopathic care (enabling) and illness type (illness). The preeminence of the illness component is not surprising since the state of ill-health by definition is an undesirable and threatening experience and in the last instance propels an individual to seek care. This signals the need for future studies, particularly in medically pluralistic societies, to recognise the independent status of the illness variable.

USE OF ALLOPATHY:

1. Approximately 85% of the sample resorted to Allopathy at least once, thus cutting across differences in predisposing and enabling variables. Although its use was marginally less for common and non-serious illnesses, there were no significant differences across illnesses. Allopathy was used by either all or almost all respondents suffering from remaining illnesses.

2. Allopathy was the only formal system to be used by 44-73% of the sample. In other words, more than half of the total sample (52%) were exclusive users of Allopathy and another 4-8% of the sample returned to Allopathy after unsuccessful treatment from non-Allopathic sources.

3. Out of the two-thirds of the sample which resorted to only one formal system, nearly 80% were Allopathic users. In other words, exclusive type of usage was largely an outcome of the dominance of the Allopathic system.

4. Unlike its non-Allopathic counterparts, the exclusive use of Allopathy was

determined by all three components, namely predisposing (belief), enabling (resource) and illness type.

5. Allopathy was used by 86% of the sample during the first stage of utilisation. It appears that Allopathy provides an initial foothold to almost every one entering formal health-care, after the variety of non-formal sources were perceived to be insufficient. The role of Allopathy can be likened to the stem of a funnel with two mouths - streamlining users at both ends. At one level, it channelises various individuals who are using Popular sources into its fold, and at the other, it disperses the remaining users to non-Allopathic sources.

6. The users of Allopathy were mainly seeking immediate relief, certainty of diagnosis and cure.

USE OF *AYURVEDA*:

1. The *Ayurvedic* system is more popular of the two non-Allopathic formal systems. About a third of the total sample (29%) had sought professional *Ayurvedic* care at least once. This percentages would have been even higher, but for its disguised use as home remedies. This is most noticeable in the case of jaundice where only 15% of the sample actually report using *Ayurvedic* cure. However, more than 84% of the sample reported using a home remedy where the actual preparation is *Ayurvedic*.

2. It was rarely used exclusively (5%) or simultaneously with Allopathy (4%). Compared to the serious illnesses, the *Ayurvedic* sources were used frequently (at times exclusively) in less serious illnesses. Although, the illness type is not associated with patterns within exclusive and multiple types of utilisation, it is very striking to note a relatively higher use of *Ayurvedic* sources in

potentially fatal illnesses like diabetes and cancer. This is mainly attributable, on one hand, to the popular belief in the efficacy of *Ayurveda* in the case of diabetes and on the other, to favourable advertising in the case of cancer.

3.   The exclusive users of the *Ayurvedic* system could be identified on the basis of several variables belonging to the predisposing (socio-structural, belief), and enabling (resources) components.

4.   A large majority of those resorting to the *Ayurvedic* system were multiple users who preferred to shift to *Ayurvedic* sources after having used Allopathy. The profiles of these users differed from other multiple users in terms of their predisposing (socio-structural, belief) and enabling (resource, treatment-related) components.

5.   The user of *Ayurvedic* system were mainly seeking a previously used source, and expected permanent cure without side-effects. Judging by the very small proportion of the sample who decided to revert to Allopathy after having used *Ayurveda*, it is safe to say that it offers satisfactory alternative to Allopathy.

USE OF HOMOEOPATHY:

1.   Homeopathic sources are the least popular of all formal and non-formal sources. Only 16% of the total sample used Homoeopathy at least once.

2.   Like the *Ayurvedic* system, Homoeopathy was used exclusively by a very small proportion of the sample. However, unlike the *Ayurvedic* system, Homoeopathy were never used simultaneously with Allopathy.

3.   The exclusive users of Homoeopathy and those who shifted from Allopathy to Homoeopathy were mainly women and those belonging to the upper income groups. Homoeopathy was almost always used non-serious illnesses (common

and chronic). The percentage of its use is negligible in the remaining illnesses where alternative sources offer greater likelihood of cure.

USE OF POPULAR SOURCES:

1. In terms of total volume, popular sources are resorted to as much as the Allopathic. More than four out of five in the sample used Popular sources at least once. But the volume of their use is diametrically different across illnesses and stages. This suggests that both supplement each other in treatment of all types of illnesses. But in common illnesses the volume of use of Popular sources is the most widespread and surpasses even that of Allopathy.

2. They are used prior to the entry into the professional sector, simultaneously with formal treatment and on withdrawal from the formal sector.

3. Only 7% of the sample use Popular sources exclusively whereas the majority use them either as a supplement to another formal source or as recuperatory means after obtaining satisfactory cure from the formal sector.

4. The exclusive users of Popular sources could be distinguished from other exclusive users on the basis of their predisposing (demographic, socio-structural, belief) and enabling (resource) characteristics.

USE OF SACRED SOURCES:

To recapitulate from what has been discussed in chapter 7,

1. The magico-religious sources were used by (22%) of the sample at least once. Given the urban milieu and the nature of illnesses included in the study, the proportion is high enough to recognise the importance of Sacred sources.

2. These sources are used in the later stages of an illness, in serious illness and by women and less educated respondents. This is best exemplified in the case

of cancer wherein more than two out of three respondents resort to supernatural sources in addition to Allopathic and non-Allopathic care. The intensive reliance on sacred sources coupled with a hundred percent use of Allopathy indicates that when stakes are high, people do not perceive any conflict in combining the spiritually and scientifically rooted systems of cure.

3. Multiple usage involving combinations of apparently conflicting sources from the sacred and rational planes is determined by the predisposing, enabling and illness variables.

DETERMINANT VARIABLES AND THEIR RELATIVE INFLUENCE:

The results highlighted the importance of predisposing and enabling variables in identifying different patterns within exclusive and multiple types of utilisation. The third component, namely illness, was significant for identifying the exclusive users of Allopathy from exclusive users of non-Allopathic system. However, sub-components and their indicators differ in terms of their influence.

1. Out of four predisposing sub-components, the framework adapted for the study highlighted the importance of social network and belief variables. This is evidenced by the strong association between them and various patterns utilisation behaviour compared to the demographic and socio-structural variables.

2. The results point to the varying influence of the two sub-components of the enabling variable. What really accounts for multiple utilisation is the respondent's prior access to non-Allopathic sources of care rather than financial constraints. The stage-specific role of the treatment variables was also interesting. As discussed earlier, the overall utilisation behaviour is a product of several strategies each of which is influenced by the feedback from

the previous strategy and the expectation from the new strategy. The results highlighted how treatment related expectations during each of the stages resulted in the selection of sources which ultimately resulted in the overall patterns.

3.   The type and manifestation of illness are the intermediate variables through which the other two components shape utilisation behaviour. The initial manifestation as well as the characteristic of the illness at the time of revising the treatment strategy were important determinants of the initial and subsequent stages.

CHAPTER 10
UTILISATION BEHAVIOUR IN THE SOCIETAL CONTEXT

10.1. INTRODUCTION

The principle aim of this study has been to understand and explain the intricacies and changing dynamics of utilisation behaviour in a medically pluralistic setting wherein theoretically diverse but practically intermingling medical systems thrive. The multi-dimensional framework proposed here postulates that the utilisation behaviour cannot be considered in a vacuum. Utilisation behaviour is assumed to be a product of the individually based predisposing, enabling and illness variables as well as the cultural context within which it takes place. This can be graphically represented as follows (Figure 10.1).

To recapitulate, unlike China, the integration of medical systems in India is not official but *de-facto*. As discussed in chapter 1, the Indian government provides legal and financial support to Allopathic and non-Allopathic systems. A coexistence of multiple systems has resulted in a growing interdependence between them at two levels of the medico-cultural milieu, namely the structural and individual levels. At each of these levels, examples of indigenisation and westernisation of medical system can be observed. As illustrated in chapter 3·, at one level, the providers of care i.e. practitioners and institutions act as mediators between medical systems. As a result, the providers based in non-Allopathic systems have adopted ideas and practices of Allopathy and vice versa. Moreover, results of the main study have also hinted at the openness of the practitioners of one system to other systems. As can be seen from Table 9.7, some Allopathic practitioners had advised their clients to seek non-Allopathic forms of treatment and vice versa.

It will be interesting to examine the interactions between various systems at the

second level, i.e. at the individual level. The following discussion begins by illustrating how consumers act as mediators between different systems by combining concepts and techniques in their utilisation behaviour. It then proceeds to provide an explanation emanating from societal psychology.

10.2. INTERACTIONS BETWEEN SYSTEMS AT THE INDIVIDUAL LEVEL: ILLUSTRATIVE TRENDS

The Indian medico-cultural milieu confers Allopathic and non-Allopathic sources of care, a spatial and social structure which is interlocking, allowing people access to
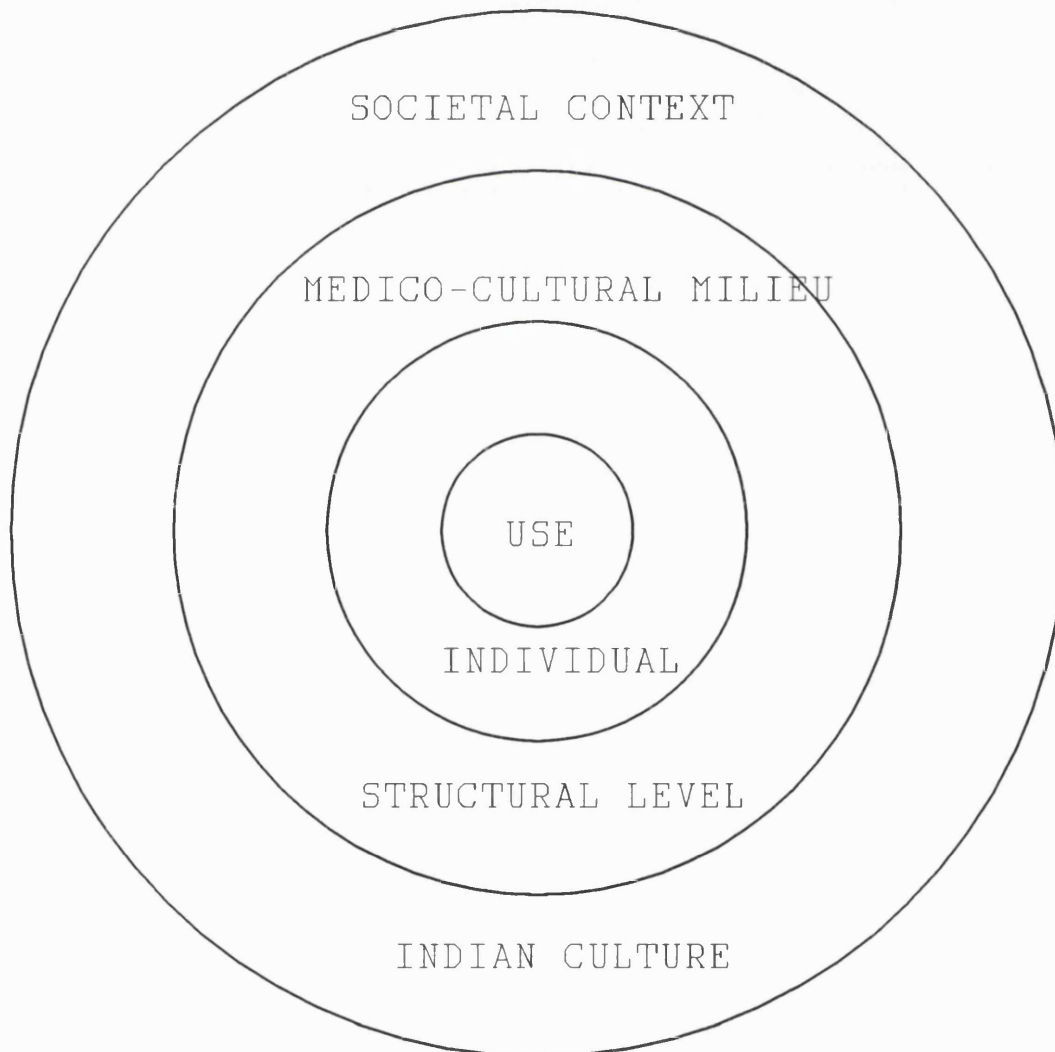
Figure 10.1. UTILISATION BEHAVIOUR IN THE SOCIETAL CONTEXT: A GRAPHIC REPRESENTATION

either at any point of time. The direct result of the complexity at the structural level is the interaction between medical sources through the individual's utilisation behaviour. These interactions take place in two domains, namely conceptual and behavioral. The following are probably the best examples of a range of possible illustrations from both these domains.

10.2.1. **BEHAVIORAL DOMAIN**: People's inclination to resort to multiple sources to treat different features of an illness is what characterises the interactions in the **behavioral domain**. That is to say, by actually utilising different forms of therapies during an illness, individuals may forge a link between them. The interactions in the behavioral domain are of three types, namely between formal systems, between formal and Popular sources, and between formal and Sacred sources. As the use of formal systems which has not been supervised by a professional is categorised under Popular sources, it is necessary to treat the two forms of non-formal sources (i.e. Popular and Sacred) independently.

As discussed in chapters 8 and 9, about a third of the total sample used two or more formal systems within the same illness. Most multiple users resorted to two or more systems sequentially and appeared to make the transition from one system to another smoothly. To recapitulate, the trend was to shift from the Allopathic to non-Allopathic sources. As the respondents believed that various sources deal with different aspects of illness, they felt the need to use more than one source either simultaneously or sequentially. On the whole, those moving from Allopathic to non-Allopathic sources were seeking a more permanent cure. Those exhibiting a reverse trend were seeking Allopathic treatment in order to contain the illness. While some of those who were seeking non-Allopathic care were trying out a new source on recommendation of the lay

group, most were opting for a source which they had previously used. In all types of illnesses a small proportion of the sample used the Allopathic and *Ayurvedic* systems simultaneously to treat different aspects of the same illness. For example, some diabetic patients continued to take insulin treatment based in Allopathy to keep the sugar level under control while using *Ayurvedic* medications to remove the cause. Some exhibited the opposite trend (i.e. movement from a non-Allopathic source to an Allopathic one) in order to control the illness. Multiple usage also took place at the initiative of the practitioner. Allopathic and non-Allopathic practitioners had advised their clients to seek alternative forms of care. More than a third of the sequential users switching to Homoeopathy from Allopathy were treated by their own family doctors who prescribed both types of treatment. In the sample, nearly half (44%) of those who moved from Allopathic to non-Allopathic sources stated that they preferred Allopathy generally. By moving from one formal system to another, by adapting theories and practices of these systems, people tend to forge links between the seemingly divergent forms of treatment.

Numerous examples of interactions as a result of use of formal and non-formal sources can be cited. Nearly 71% of those using only one formal medical system (i.e. exclusive users) had either simultaneously or sequentially used Popular sources at least once. Although Allopathy was the single most popular system to be used exclusively, 85% of Allopathic users combined it with Popular sources at least once. Nearly 93% of those who used the Allopathic system, used one or more non-formal sources of *Ayurvedic* origin for curative and preventive reasons. Since these non-Allopathic medicines and health-promoting substances are believed to have no side-effects they are used simultaneously with Allopathy. Almost the entire sample took some form of Allopathic and *Ayurvedic* health-supportive preparations (e.g. vitamins, tonics like

chyavanprash) or substances (e.g. *shilajit*, turmeric, garlic, asafoetida) at least once.

Like the differential use of formal and Popular sources, the Sacred forms of treatment were regularly combined with rational medicine. Allopathy and Sacred sources were used by more than two-thirds (67%) of the exclusive users in illnesses like cancer. The resolution of health-related problems through a combination of rational and mystical means took many forms. It may mean seeking a *sadhu* (a saint or a pious person) or a *bawa* (person blessed by gods or spirits) whose presence, look, touch and blessings could assist in curing the illness. In some cases a secret *mantra* (prayers or chants mainly based on religious scriptures) given by them was recited regularly to effect a speedy or a permanent cure. The simultaneous use of sacred sources often took the form of conditional vows - a form of "bribery" arising out of faith, wherein an action in return for cure was promised to a deity or a religious leader. Promises of offerings of special food, going on a pilgrimage, abstinence from favourite foods, distribution of food or money to the needy, building a temple or any charitable institutions were frequently made. In a serious life-threatening illness like cancer, similar vows were made by most patients and/or their relatives. It also took the form of certain rituals prescribed by religion like complete fast or abstinence from particular food on specific days, doing *Puja* - a form of worship with special therapeutic properties, or alms giving. In the Indian scheme, each day of the week is linked to the favourable or unfavourable effect of various planets[1]. Going to the temple and fasting on a particular day was believed to reduce the negative effect of the planet and assisted in the treatment being

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[1]As a result, certain days were believed to be unlucky or "heavy" for the sick and lead to the onset or aggravation of the illness. Similarly some days are assumed to be specially favourable for certain healing activities. Tuesday, for example, was believed to be an ideal day for supernatural activities (like exorcizing spirits which cause the illness, misfortune and suffering).

sought from formal sources. Some used astrology to gather background information about the duration and the likely course of the illness as well as the outcome of the treatment. It was used to select the "best" or the "most favourable" time for carrying out a successful operation, to identify the effective source of treatment etc. It was believed that although an illness which is "written" in one's destiny cannot be avoided, astrology could help in dealing with it with the aid of propitiation, offering homage, sacrifices, wearing precious stones etc. The evil powers of a complimentary remark (evil tongue) or glance (evil eye) were in some cases judged to be the cause of a range of problems[2]. The treatment, in these instances involved supplementing the rational medicine with magical cures offered by a *mantravadi* or spiritual healers.

10.2.2. **CONCEPTUAL DOMAIN:** The interaction between systems can take place in another domain, i.e. in the **conceptual domain**. That is to say, the individual would employ ideas and concepts rooted in systems other than the one being used. These could range from seeking explanations to answers like "why do I have this illness?" to understanding a paradigm.

For patients - irrespective of their status or level of literacy - obtaining an explanation about a current complaint or illness was very important. As a result, they turned to different sources within their medically pluralistic milieu to understand different aspects of their illness and its treatment. Therefore it was not unusual to find that people understood one medical paradigm in terms of another. They did so by invoking concepts and practices of one system while undergoing treatment with another.

This can be best illustrated with the use of concepts rooted in the *Ayurvedic* and

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[2]Such evil influences are responsible for general disposition to ill-health, sudden onset of non-serious illnesses or ineffective treatments. These influences coupled with sorcery were believed to be caused by conscious or unconscious actions of the lay men as well as specialists who can cast spells.

Allopathic systems. In *Ayurveda*, prevention and cure of most diseases rest on regularity in diet, conduct and habits. However, the pace and stresses of living in a city like Bombay, pose difficulties for the inhabitants in their attempts to follow these regulatory mechanisms. Many urban dwellers not only considered irregularity of daily life (34%) as the chief cause of their ill-health, but went on to seek Allopathic treatment. Similarly, 17% of the total sample attributed their illness to changes in climatic conditions as prescribed by *Ayurveda*[3] but nonetheless resorted to an Allopathic professional. Likewise, Allopathic concepts (e.g. infection) were loosely used and frequently combined with *Ayurvedic* concepts (e.g. humeral imbalance) and treatments. For example, external organisms like viruses were believed to cause imbalance of the *tri-dosha* and lead to typhoid. As a result, the treatment not only consisted of antibiotics based in Allopathy but also *Ayurvedic* preparations like *tribhovankirtirasa*.

Many respondents, irrespective of their preference or use of Allopathy, tried to understand diagnosis and treatment in the light of their *prakriti*[4]. The respondents freely employed the concepts of *prakriti* while trying to understand and explain why they were taken ill. It was observed, during the pilot study, that some patients even volunteered the information to professionals including the Allopathic ones. While

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[3]Six well defined seasons with their climatic variation are peculiar to India. The seasonal variations affect the equilibrium of an organism. According to *Ayurveda* during the different seasons in the year, the *dosha* undergo certain changes. If certain precautions are not taken during these seasons and especially during the change of seasons, even the healthy person becomes vulnerable to certain sicknesses.

[4]*Prakriti* one of the most important *Ayurvedic* concepts, as seen in chapter 3, provides answers to questions like why people react differently to similar environments or similar diseases? Since *prakriti* is an inherited genotypical condition that cannot be altered fundamentally, it is of supreme significance in determining the condition of health and disease within the *Ayurvedic* paradigm. The pervasiveness of the concept is evident from the fact that less than 20% of the total sample believed that there was no connection between *prakriti* and their illness.

describing the symptoms, it was not unusual to hear a patient either informing the Allopathic doctor that he/she has certain *kotho* (colloquial term for *prakriti*) or inquiring if the illness has anything to do with the *prakriti*.

The notion of *prakriti* gives rise to another subjective concept very commonly employed by people in discussions of food and medicine. Because each individual's constitution is unique, certain types of foods, climates, treatment etc. may not be "suitable" or "agreeable" with his/her *prakriti*[5]. Some respondents stopped their Allopathic or Homoeopathic treatment because they thought it was "unsuitable" or "disagreeing" with their *prakriti*. In *Ayurveda*, there are no fixed rules for determining treatment or prescribing the dosage. It has to be varied and regulated by the practitioner according to the *prakriti* of the individual (together with age, digestive capacity and the season). The Indian patients appear to extend this concept and manipulate the dosage of Allopathic medicine. It was very common to find respondents taking half the prescribed quota of treatments or prematurely terminating a course of medication on the basis of their *prakriti* as well as due to "unsuitability" of the treatment.

Apart from the *Ayurvedic* and Allopathic systems, concepts rooted in religion were combined with those from the formal systems. During any illness, questions that pertain not only to the realm of health but to some socio-cultural issues are brought to the surface. Patients, as a result, dipped into their individual as well as collectively gathered reservoirs of theoretical and empirical knowledge. Many suffering from serious illnesses (e.g. cancer, B.P.) believed that, apart from the more immediate causes of their illness (e.g. stress, unhealthy dietary habits), *karma* of this and previous lives may have

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[5]To illustrate, a *pitta* (gall) person may find spices or certain fruits like mangoes disagreeable, a *kapha* (mucus) person may find sweets and milk unsuitable, and a *vayu* (wind) person may find many grains upsetting.

been the ultimate cause of their illness. Although some agreed that an individual's health can be affected by the *karma* of other members of the household, most believed that their own previous *karma* was responsible for their illness. Illness in general was often seen as a punishment for their bad *karma* which may also result from not following one's *dharma* (rightful, truthful, ethical and dutiful conduct in accordance with religion and culture). Moreover, *karma* can also influence the outcome of the treatment strategy. Accumulation of "good" *karma* (by following *dharma*, *badha* etc.) can lead to positive outcome of the therapy and vice versa.

Certain practices of the Allopathic systems were interpreted in the light of the *Ayurvedic* system by some of the respondents interviewed during pilot-study. For example, the reading of the pulse (which is of moderate significance in diagnosis) by an Allopathic practitioner, was at times interpreted in *Ayurvedic* terms. It was thus seen as "understanding the movement of the pulse" or *nadi*, which is the most important diagnostic technique in the *Ayurvedic* and *Unani* paradigms. *Ayurvedic* practitioners are expected to diagnose only on the basis of intuition, observation and the 'feeling of pulse'. According to popular interpretations, superior knowledge and power of healing are negatively linked to the number of questions the practitioner asks and his/her reliance on technology. Practitioners' merits - irrespective of the medical system - were often judged by their ability to "read the pulse".

Similarly, *Ayurvedic* and Allopathic concepts are selectively applied in the classification and interpretation of illnesses and in the prescription of treatment procedures. For example, the Allopathic drugs used in the case of jaundice - a *pitta* dominated illness - were believed to "restore the level of *pitta* in the body". Similarly, cancer was considered to be a *pitta* dominated illness in which the blood gets

"corrupted". Accumulation of this "bad" blood in an vulnerable organ resulted in malignant tumours. Accordingly the treatment involved purifying of this blood through oral medications based in *Ayurved*, removal either through traditional techniques (e.g. leeches) or modern ones (e.g. injections) and radiation or chemotherapy to arrest further deterioration and "kill" the growth.

Numerous examples of the interaction between the two systems which relate to the properties of the medication and their effects can be cited. The *Ayurvedic* paradigm recognises five properties of drugs (taste, virtue, power or efficacy, inherent properties and resulting action). Certain Allopathic tonics were considered to be "powerful" because they were dark in colour, and tablets which were red in colour were believed to cause *garmi* (heat) in the body. Other patent drugs were classified as *garam* or *thanda* (cooling), *bhare* (heavy) or *sahela* (easy) to digest and so on. Simultaneously, diet was altered to counteract their effects. For example, the medication for typhoid - popularly believed to be *garam* - was taken with milk or coconut water which are considered to be *thanda*. Since in the *Ayurvedic* paradigm the potency of a drug is considered to be greater if it can be readily injected into the blood stream, injections are believed to be the most powerful form of taking medication[6]. Similarly, tonics are generally believed to be more effective than tablets as they are easier to digest. The idea and use of vitamins and tonics is sometimes interpreted in the light of the *Ayurvedic* notions like "strengthening" blood.

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[6]Though classical Sanskrit *Ayurvedic* texts refer to the procedure of injecting drugs, the current practice of injecting non-Allopathic medications rests solely on the success of Allopathic technique.

10.3. MEDICAL PLURALISM AND UTILISATION BEHAVIOUR: A SOCIETAL EXPLANATION

"Societal Psychology" a recent variant within social psychology, recognises the potential of the societal context in determining the behaviour of individuals. Mainstream social psychology has been increasingly criticised for its limited focus on phenomena which can only be experimented on or tested under laboratory conditions. As highlighted by Himmelweit and Gaskell (1990),

> "the cost of this concentration of efforts on the individual and away from society has been high" (p. 9).

They have advocated a shift in emphasis. Social psychology, in their opinion should move away from a-historical, one dimensional analysis of the individual and move towards a societal psychology which recognises the importance of social and cultural aspects. In order to widen its contours, Himmelweit (1990) recommends that the emphasis should be on "a more outward-looking" perspective which attempts to understand

> "social life as it occurs "out there" rather than forcing social life into the procrustean bed of small-scale hypothesis testing in the laboratory" (p.42).

As a result, societal psychology advocates the need to consider non-rational and cultural determinants of health-seeking behaviour in addition to the individually based variables. According to Gaskell (1990, p.253),

> "the individual studied *in vacuo* tells one little more than something about the individual as an abstracted conception - abstracted from precisely those social phenomena that are of importance to social psychological perspectives."

Therefore, he adds,

> "What seemed to be essential was to develop approaches that focus on the person and the group in the context of those social institutions and processes that form a key part of their current reality - their paramount reality."

The present study, with its emphasis on understanding the individuals' utilisation

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behaviour in its medico-cultural context falls within the sphere of such a societal focus. It is based on the premise that in order to study what people believe and do when faced with ill-health, it is necessary to consider the influence of societal forces on the health behaviour. In fact, it would not be an exaggeration to say that, in the Indian context the former can only be understood in terms of the latter.

The roots of individuals' health related attitudes, knowledge and resultant practices can be largely traced to the typically Indian socio-cultural milieu which includes the medical context. The socio-cultural milieu of India provides the background wherein, despite the diversities in the medical options, a common set of premises on the cause and control of illnesses are shaped. To illustrate with the two indigenous medical systems, namely *Ayurveda* and *Siddha*. The dissimilarities between the two systems are only marginal since their respective concepts of the universe are very similar. Fundamental to both system is the Holy Trinity, which forms the basis of entire Hindu culture. As a result, both *Ayurveda* and *Siddha* incorporate the principles of *panchmahabhuta*, *tri-dosha* etc. in the classification of diseases and use of drugs.

The socio-cultural milieu, therefore, influences the individual behaviour both directly as well as indirectly. It directly influences the behaviour of the individuals by formulating their values, beliefs and expectations. It exercises an indirect influence through the nature of medical systems and its delivery, i.e. the structural level of medico-cultural milieu. Perhaps the complexity of *Ayurveda*, the key Indian medical system, is on the one hand a reflection of the complex socio-cultural milieu it is a part of. On the other hand, it reinforces the varying nature of the individual utilisation behaviour.

The influence of the socio-cultural forces on the medical sphere can be illustrated

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through three fundamental principles underlying the Indian world view.

The first principle dictates that there are multiplicity of approaches to reality. As a result, it is believed that practically all views or approaches are valid from a particular vantage point and the ultimate view is the synthesis of the many partial ones. Therefore, the Indian world view considers metaphysics, epistemology, religion, philosophy, medical sciences to be interrelated. They are parts of a 'whole' and isolating one would break the unity. This multifaceted approach is also reflected in the *Ayurvedic* conception of illness and cure. In *Ayurveda* a disease is defined as *dukkha* (i.e. contact with anything which is unpleasant to the body, mind and soul) and treatment is prescribed according to the cause of a disease. According to the Sankhya school of thought, all causes of pain can be classified into three groups, namely internal (i.e. from body and mind), external (i.e. from the physical world) and spiritual (i.e. from supernatural sources). This totality of likely origins of pain or disease, not only requires a study of the whole universe, it also prescribes a multitude of therapeutic sources covering every available form of spiritual and non-spiritual treatment. As a result, *Ayurveda* states that, a physician does not acquire the real knowledge of medicine by learning a single science. He should therefore study as many allied sciences as possible and have their full knowledge[7]. Accordingly, the treatment should not only be aimed at finding appropriate internal remedies but must deploy all available means to restore normal balance or equilibrium (Report of the Committee on Indigenous Systems of Medicine, 1948). This multiplicity in sources of knowledge and the resulting variety in forms of treatment leads to a realisation on the part of the individuals that, in order to overcome inadequacies of their knowledge they need to gather information from variety

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[7]*Ak shashtamadhayano n vidhat shashtranichayaam, nsmabdhhushrutmh shashtram vijaaniyat chickitsak* (Charak Samhita Sutra, 26:12).

of sources and rely on different kinds of treatment. Perhaps the heavy reliance on the lay group amongst the respondents of the study is the result of individual's awareness of personal limitations, on one hand, and the cultural emphasis on avoiding individualism on the other.

The second principle underlying the Indian world view is that everything has a use. From this pragmatic approach stems the assimilative philosophy of the Indian culture which has guided the Indian way of life - including the health-related activities - over the centuries. The remarkable ability of the Indian culture to absorb and combine contradictory concepts and practices need hardly be elaborated. As a result of this tendency, an amazing variety of people, religions, interpretations of the universe, Gods, life-styles, methods of attaining liberation, therapeutic systems etc. have been absorbed by the Indian society. Typically Indian characteristics such as tolerance, the capacity to assimilate and the ability to compartmentalise have all contributed to the sustenance and promotion of medical pluralism. As a result, four formal systems with distinctly different cultural roots and numerous non-formal medical traditions are not only existing side-by-side but, interacting with each other. New ideas and knowledge from a multitude of sources have been adopted and added to the existing wisdom without always abandoning old ideas. Instead of choosing between conflicting concepts, the existing framework has been expanded to accommodate them. This results in interaction between various components of the cultural milieu. Moreover, a variety of sources are patronised by the Indian consumers as well as practitioners. The pragmatism guiding the simultaneous and sequential use of multiple sources by the Indian people is another manifestation of this principle. The pragmatism is further echoed in the broad definitions of what constitutes a medicine and a physician in *Ayurveda*. Accordingly,

"He is physician who cures diseases and whatever cures diseases is medicine" (Charak in Karambelkar, 1961).

Since in the ultimate analysis, every object and person has the potential of effecting a cure, nothing can really be discarded or eliminated. Moreover, since the goal of successful treatment is important, it would naturally follow that the means or the form of treatment are less so. This emphasis on outcome is expressed in multiple utilisation behaviour and medical pluralism. As long as the illness can be cured it does not matter what form of treatment is used. Both patients and practitioners use different forms of treatment in search of a diagnosis and/or cure. In other words, multiplicity existing in the Indian scheme is also at the core of the medical theory and practice.

The third principle dictates that everything has both advantages and disadvantages and it is important to balance them. In this study, the utilisation behaviour of the sample as well as the stance adopted by the practitioners can be seen to be a reflection of this synthesised world view. This culminates when the shortcomings of one medical system are compensated with the strengths of another. In operational terms, this simply means multiple utilisation. This usage may be of two or more non-formal and formal systems. This is perhaps reinforced by the collective representations of "balance" as an ideal. At the core of Indian cosmological ideology is the balance between *shiva* (representing the masculine power) and *shakti* (representing the feminine power). This is also manifested in the *Ayurveda*. In *Ayurveda*, medical and non-medical actions are predominantly geared towards maintaining and restoring balance. Accordingly, discord is equal to disease and balance equal to health. The definition of health (*swasthya*) in *Ayurveda* not only includes a well balanced metabolism but also expects it to be balanced mentally, socially, and spiritually. It has a more holistic consideration of health and illness, of the delicate interplay between opposing factors and of the need to maintain balance. This

tendency to balance finds a parallel, on one hand, in the efforts of the Indian government to modernise the nation while retaining its traditional roots and on the other, in the individual utilisation behaviour wherein concepts and practices of seemingly diverse forms of care are selectively employed. Although the health-care delivery structure of the country is modelled along the Allopathic system, the government encourages the delivery of non-Allopathic medical systems. The coexistence of multiple approaches to reality at the societal level and structured coexistence of multiple systems at the national level, nourishes the search for balance and harmony at the individual level.

It is, therefore, apparent that the Indian world view articulates and encourages pluralism on the conceptual as well as behavioral domains. India has a strong tradition of simultaneous existence of diverse paradigms. However, the diversity and resulting commonalities continue to not only influence the functioning of the other components of the medico-cultural milieu discussed in chapter 3, but also the behaviour of the individual. The interaction between medical systems in India results in the indigenisation of western systems and the westernisation of indigenous systems at both levels of the medico-cultural milieu, namely the structural (institutional and practitioner) and the individual. Due to the common cultural milieu, different medical systems have shed some of the characteristics of their parent cultures and developed a uniquely "Indian" identity. As a result, in the Indian context these paradigms are neither totally independent nor totally correlated. What is striking however, is the continuity of the different systems as separate and distinct entities at the theoretical level. At the behavioural level, functioning of different systems undergo significant transformations. The Indian consumers, practitioners and institutions, acting as catalysts, lead to mutual adoption of certain practices, producing a blend of a unique kind.

However, it would be wrong to assume that the influence of the socio-cultural context is unidirectional. As represented in Figure 10.2, the relationship between the individual and the societal forces is of mutual influence - that of a dialogue. After all, utilisation behaviour is interfaced between, on the one hand, the demands from the individual members, and supply from the components within the medico-cultural milieu on the other.

On one hand, the different ways in which the individuals conceive of and utilise medical systems has necessary implications at the structural level and vice versa.

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│               INDIAN CULTURE                    │
│                                                 │
│           ideological support                   │
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        │      CENTRAL & STATE GOVERNMENTS          │
        │  legal and financial assistance to Allopathic &│
        │        non-Allopathic systems             │
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        ┌───────────────────────────────────────────┐
        │  MEDICO-CULTURAL MILIEU: STRUCTURAL LEVEL  │
        │     receptiveness of practitioners &      │
        │     institutions to other systems         │
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        │             INDIVIDUAL LEVEL              │
        │  multiple utilisation in behavioral &     │
        │           conceptual domains              │
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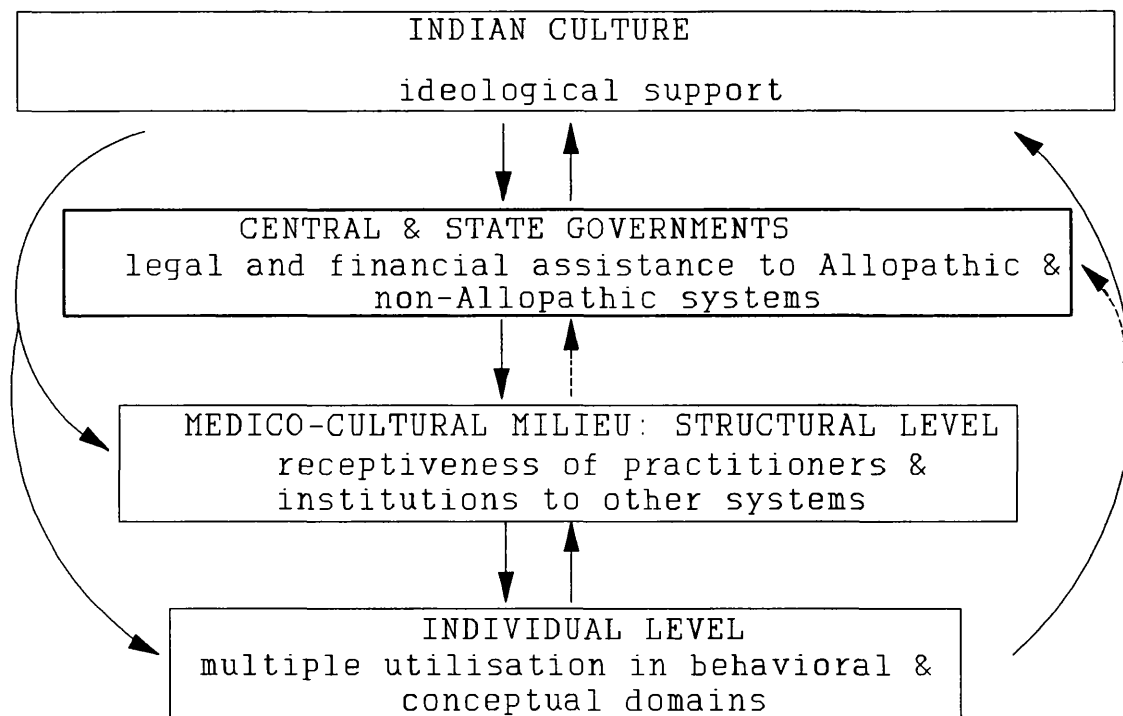
Figure 10.2. A GRAPHIC REPRESENTATION OF THE RELATIONSHIPS BETWEEN THE INDIVIDUAL, MEDICO-CULTURAL MILIEU AND THE SOCIETAL CONTEXT

Essentially, the medico-cultural milieu evolves to meet a people's conception of their health needs. Since medical systems cannot exist independently of their patrons, the utilisation behaviour of the customers can bring about changes in their functioning at the macro level. Differential utilisation of various medical sources by the consumers has to some extent led the professionals to adapt other forms of curing. In an illness situation, the practitioner is considered to be "superior", therefore no real demands can be placed by the patients. However the consumer can put indirect pressure or demand by changing the healer, i.e. through multiple utilisation. Moreover, as evident from the structured coexistence of medical systems, the Indian consumers wield considerable amount of influence on the health care delivery structure even at the national level.

On the other hand, consumer demands originate in their beliefs or perceived needs which are essentially culturally conditioned. Because the consumers share a common culture and a world view, their expectations and manner of assessments are bound to be similar. This is reflected in the way in which medical systems rooted in different philosophies have developed many common practices. Various medical systems with their theoretical differences and culturally diverse backgrounds are after all being practised by Indians on Indian patients.

10.4. CONCLUSION

The coexistence of various systems as a result of medical pluralism means that each of these is in constant interaction with the others at two levels, namely the structural and individual. This and the earlier chapters, adequately illustrate the continuous process of transformation that is characteristic of the pluralistic medical culture of Bombay. The cultural setting acts as a dominant and unifying force transforming and amalgamating different medical systems. Therefore, the relationship

between various medical systems is not static, but is an evolutionary process of change and continuity. This process unfolds through the constant interpretation and reinterpretation of the theory and practice of different medical systems, and the incorporation of elements from one into the other.

To conclude, utilisation behaviour is influenced by the events both inside and outside the body. It as much a product of the factors associated with the individual as his/her societal context. Notwithstanding the fact that the socio-cultural context plays an important role in determining the type of disease the individual would suffer from, the societal context together with the structure of the health-care delivery system and the individual's predisposition and ability to pay, intervene between the individual's illness and its treatment.

Chapter 11
CONCLUSIONS

The interplay between the individual and culture on one hand, and between

the western and indigenous, sacred and rational, formal and non-formal forms of care

in a modernising urban setting of a developing country, on the other, provides a

fascinating topic for scientific investigation. However, the studies undertaken so far

despite their undoubted utility, have suffered from theoretical and methodological

limitations. Consequently, the overall picture of medical pluralism and its impact on

health behaviour which emerged from these studies tended to be rather simplistic and

to some extent even distorted.

The present study was undertaken for the purpose of compiling quantitative

and qualitative data to understand the utilisation behaviour of the Gujarati-speaking

people of south Bombay. An underlying premise of this study is that an understanding

of treatment-seeking process is essential to planning any health-related activity. To

this end, the thesis puts forward a framework: what are the determinants of utilisation

behaviour and how they influence - individually and collectively - various patterns of

utilisation behaviour. This framework has been validated by an empirical study

which examined the relationship between various determinants and patterns of

utilisation behaviour. This chapter presents certain conclusions which have

theoretical, methodological and policy implications.

11.1. THEORETICAL IMPLICATIONS

The implications of some of the findings reported in the earlier chapters

suggest a need for the models of utilisation behaviour to be modified or extended

along the lines of the multi-dimensional framework presented here. There is a strong

case for following revisions:

1. As has been highlighted by the results, utilisation behaviour is not a singular act but a continuously evolving decision-making process. It involves a regular monitoring of the progress towards the goal of satisfactory cure rather than a discrete episode involving choice dilemmas either at the symptom manifestation stage or thereafter. It is, therefore, imperative that a model of utilisation behaviour should take into account the transient nature of the phenomenon. Moreover, by placing the importance on the internal structure of the illness-situation, the resulting model would enable a better representation of the process of utilisation behaviour. As highlighted by the results, utilisation behaviour is a sequential process wherein the sources are used differentially. Accordingly, there exists a need to redefine it in terms of patterns of usage. Although such an approach draws on the stage models, it takes a further step towards a more representative definition of utilisation behaviour. Any definition that demarcates stages of utilisation is more likely to approximate closely to the actual unfolding of the treatment-seeking processes rather than a definition that is ambivalent about stages of illness or utilisation.

2. The results of the study support the premise that utilisation behaviour is a multi-faceted activity whose description and measurement requires a complex approach. A combined, multi-dimensional approach is a better way to examine the dynamism and intricacies of the phenomenon. The reliance on a multi-dimensional framework was thus justified. Very few studies in the past have attempted to examine the complexity arising out of the multiplicity of sources used in innumerable combinations. Usually, the focus of these studies

is on the influence of only a few variables on a limited number of sources. Consequently, there are few comprehensive analyses of the phenomenon of utilisation. This study was an outcome of the recognition of the need to account for the effect of several explanatory variables - individually and collectively. Therefore, a wide range of variables grouped under the predisposing, enabling and illness variables were identified for examination. With regard to Andersen and Newman's framework, and other factorial models, the evidence presented in chapters 4, 8 and 9 clearly indicate that the social as well as treatment variables should be incorporated in the framework.

i)   The data provide considerable support for the inclusion of social network variable. Andersen and Newman's model which has dominated the health service utilisation literature for decades should be expanded to include some measure of the role played by the lay group, both prior to and during the illness. As pointed out by the study, the sick individual first consults the lay group before seeking professional care. The lay group, to some extent, acts as the gatekeeper, and determines when and which professional to seek. The preeminence of this variable in this study stems from the fact that in the Indian context, the source of action is not the individual but the group. Indigenous traditions, to a considerable degree tend to undermine individualistic determination of actions in favour of group participation. Thus, utilisation behaviour is inevitably a social activity since illness has both personal and social ramifications, disrupting the performance of social roles. The members of the lay group, therefore, act to

accommodate the disruption by either attempting to restore the previous equilibrium or to achieve a new one. This finding may have implication for academicians studying utilisation behaviour as well as those involved in changing individual behaviour.

ii)   The role played by some of the treatment related aspects like satisfaction and scepticism, in shaping the subsequent strategy suggests that further research on this determining variable should prove to be quite informative. Due to the progressive nature of illness and, therefore, of utilisation behaviour, different expectations and reasoning dictate the choice of current treatment. The data do provide considerable support for including variables relevant to the current treatment strategy in the framework.

3.   It has emerged from the empirical evidence that in the medically pluralistic societies, ignoring differences between illnesses can be risky. The results point to differences in manifestation of various illnesses and hence in the patterns of utilisation. This signals the need for controlling for differences between illnesses while studying the decision-making process.

4.   There is a strong case for incorporating in the framework, the societal context which includes the medico-cultural milieu, instead of simply focusing on the individual. The present framework with its emphasis on the medical and socio-cultural milieu offers useful theoretical insights into locating individuals' behaviour in a social context. The utilisation behaviour must be understood in terms of the existing multiplicity and resulting interactions between diverse medical paradigms at various levels of the medico-cultural milieu as well as

the larger socio-cultural processes which sustain them. The results clearly suggest that utilisation behaviour of an individual cannot be considered in a vacuum. It is as much a product of the individually based predisposing, enabling and illness variables as the medico-cultural milieu in a larger societal context. It is not only influenced by the progressive nature of illness but also the politico-economic considerations at the national and international level. Though largely neglected, individual's behaviour is also influenced by the professionals functioning at the structural level of the medico-cultural milieu. Generally health-care utilisation frameworks adopt a provider-dominated approach wherein the direction of the influence is from the professional to the individual rather than the other way around. This ability to accommodate the impact of the socio-cultural as well as the individual variables on the utilisation behaviour is what is distinctive about this framework.

In brief, the present framework offers a much needed scheme for empirically exploring the complex phenomenon of utilisation behaviour in a medically pluralistic setting. Compared to other frameworks for studying utilisation behaviour in general and with specific reference to medically pluralistic societies, the present framework is better equipped to cope with the complex dynamics of the phenomenon of utilisation behaviour.

11.2. METHODOLOGICAL IMPLICATIONS

Utilisation behaviour is far from being simple, predictable, and amenable to measurement. This is, perhaps, one of the reasons why studies undertaken in the pluralistic societies often pay little attention to the definitions and data collection techniques. Most studies have largely relied on observational data, loose definitions,

narrow samples and qualitative analysis. This study attempted overcome these limitations by being more precise in methodology and also using both quantitative and qualitative analytical techniques. The outcome is retrospective data collected systematically from a fairly large sample (N=480) with the aid of an exhaustive questionnaire. The methodological implications of the study can be summarised as follows:

1. The shift in emphasis from illness dependent to within illness usage has deeper implications. There are definite advantages of investigating usage within a single illness. Both, the clinical manifestations of an illness and individuals' cultural predispositions are echoed in varying degrees in any single instance of utilisation behaviour. Therefore, it signals the need to uncover some of the causal linkages between utilisation behaviour and an individual's cultural presuppositions in order to capture the phenomenon in all its multiple dimensions and ramifications. The grounds for the deployment of the multidimensional framework to investigate utilisation are, therefore, validated by the nature of the phenomenon itself.

2. Conventional studies on use, misuse or under-use of specific sources are not sufficient to shed light on the importance of various sources of care and their relative volume of use. The present study, with its concentration on the process of utilisation, can assess in comparative perspective the relative use of various medical services. As stressed by Lasker (1981), "there have been few attempts until recently to analyze the relative utilisation of Western and indigenous modes of treatment" (p.157). The present design, unlike others, can highlight the strengths and weaknesses of these sources in meeting the

needs of the people.

3. Unlike many studies, the present research concentrated on the actual rather than hypothetical choice behaviour. It is, therefore, possible to make certain definitive generalisations in this case.

4. The role played by magico-religious sources may have changed over the centuries but, as the results based on the study highlight, it continues to be an important source of supplementary health-care in a modern city. The magico-religious sources were used by (22%) of the sample at least once. Given the urban milieu and the nature of illnesses included in the study, the proportion is high enough to recognise the importance of Sacred sources.

5. The study shows that it is possible to systematically study utilisation behaviour by recording various processes and actions in an explicit and exhaustive fashion. Accordingly, it is possible to describe the decision-making process involving various stages. Moreover, this information on the unfolding of the utilisation process is helpful in identifying the patterns which emerge as a result.

6. The adoption of fixed recall period, quota sampling, partially structured instrument for data-elicitation, and fairly large sample are distinctly strong methodological rationales of the study. The definition and types of illnesses included in the study as well as the duration of recall have been carefully chosen. Illnesses were identified on the basis of the pilot work. Sufficient care has been taken to ensure variability in characteristics (minor-major, chronic-acute, serious-non-serious) and usage preferences. Although retrospective studies have been criticised because of their heavy reliance on

human memory which is known to deteriorate, they are not necessarily methodologically weak.

7.   The analysis of the data, presentation and interpretation of the findings of the study deviate from the strictly orthodox practice of focusing solely on the individual and relies on a more all-encompassing approach which is more conducive for the purpose. As a result, it has been possible to cover intricate issues and their implications which otherwise would have been discarded.

11.3. POLICY IMPLICATIONS

In any society, the challenges involved in the effective planning of the health-care infra-structure cannot be underestimated. Despite its limitations, the present study provides an insight into the underlying principles which govern the treatment choices of people. Therefore, it can assist in the effective channelling and improvement of scarce health-care resources which are especially critical in a developing country like India. A sensitive understanding of peoples' needs and the way different systems operate can help in the formulation of synchronous health policies and their successful implementation. The policy and administrative implications arising from the present study can be summarised as follows:

1.   The popular demand for Allopathy in view of its efficacy to provide instantaneous relief and sometimes certitude of cure, suggests that Allopathy has been accepted and used without prejudice even in transitional societies where reasonably good quality Allopathic care is available and is easily accessible. The efforts, therefore, need to be directed at making Allopathic care available, rather than making it acceptable.

2.   In view of the fact that despite modernisation and inroads made by Allopathy

in contemporary India, people still retain trust and are dependent on the non-Allopathic formal systems, the government should

i) instead of integrating non-Allopathic healers into the health-care delivery structure and exploiting their potential for providing Allopathic care, channel more resources into research, development and delivery of non-Allopathic systems which are perceived to be cheaper, easily available, capable of removing the root cause of the illness and without side-effects. Currently, there is a disproportionate resource allocation in favour of Allopathy in the Public Sector. In comparison to the delivery of Allopathic medical care, the distribution of non-allopathic medical care is limited and scattered. For example, in Bombay, as against four government financed Allopathic hospitals, there is only one *Ayurvedic*, one Homoeopathic and one partially funded *Unani* hospital. Similarly, while the annual expenditure (1985-86) of government run Allopathic Hospitals was in excess of Rs. 71 million (per capita expenditure approximately Rs.64), that of the *Ayurvedic* hospital was nearly Rs.5 million (per capita expenditure less than Rs.20), and Rs.662,000 (per capita expenditure approximately Rs.16) on the Homoeopathic hospital (Brihanmumbai Mahanagarpalika, 1987[b]). The findings of the study suggest the need to review the government policy towards distribution of resources between the Allopathic and non-Allopathic forms of cure.

ii) encourage integration of Allopathic and non-Allopathic systems (especially *Ayurveda*) in diagnosis and treatment at the national level.

Unlike China, India does not have a policy of supporting integration between formal systems. However, the Indian people - i.e. the recipients - anyway resort to both Allopathic and non-Allopathic systems and integrate at the personal level. They see these systems as complementary rather than competing. Moreover, practitioners from both forms of medicine are not only receptive to alternative therapies, they often provide treatment based on more than one system. In view of this 'boundary encroachment' between the Allopathic and non-Allopathic systems, the government i.e. the giver, instead of the recipients, could perhaps play an active role in assessing the strengths and weaknesses of both forms of therapy and allocating resources according to the efficacy of the system. For example, since the lay belief and usage behaviour show a preference for non-Allopathic systems for chronic non-serious illnesses it may be more cost-effective to structure health-care delivery accordingly.

3.   Finally, when taken together, the final policy-related implication is a compound of the first three. Patients, in a medically pluralistic society, are to a large extent like consumers. The implications for those involved in planning and execution of heath-related programmes is that there is a clear need for them to recognise the "shopper" underneath the sick individual. There was little evidence to suggest that people are passive and uncritical in their acceptance and use of various sources of treatment. They are highly selective in choosing their sources of care. Before formulating or implementing any policy, it is important to weigh the strengths and weaknesses of all the medical sources

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from the users' point of view.

11.4. LIMITATIONS

The results of the study should be discussed in the light of the conceptual and methodological problems which may considerably limit the generalisability of the findings.

1. The definition of utilisation behaviour fails to differentiate on the basis of duration of usage or motivations behind it. It makes no distinction between those who are using multiple sources on a regular basis and those doing it for the first-time. Nor does it employ a weighting scheme thereby distinguishing between people using multiple sources on experimental or temporary basis before reverting to using single system, and those using it on more permanent basis. Notwithstanding the complexity of the phenomenon, the existing definition of stages does enable one to conceptualise utilisation behaviour as a process of seeking care rather than as a singular event. Incorporation of other dimensions in future definitions would enable a more complete understanding of the phenomenon.

2. It has not been possible to establish a direct relationship between the stages of illness and the resulting stages of utilisation. This might be feasible by standardising the demarcation of the stages of illnesses. As discussed earlier, the paucity of previous research makes it difficult to identify a more systematic and accurate frame for demarcating stages.

3. The study relies on a subjective definition of illness and assumes a causal link between the latter and the resulting curative actions. The subjective definition limits the application of the framework to those individuals who perceive

illness as a problem and initiate a series of remedial actions voluntarily. Unless one is attempting to compare similarly labelled illnesses across various cultures, this framework has limited application in cross cultural studies. However, the importance of such a study cannot be totally discounted since the concept of utilisation as a voluntary act can only be complete when an illness is subjectively defined. A future study can also validate the subjective definition by incorporating the clinical definition of the illness.

4.   The study was conducted on 480 individual from four income groups of the Gujarati-speaking population of south Bombay. This limits the study's generalisability to other communities as well as remaining areas of the city. However, in view of the steady decline of regionalism and localism in India, it is possible that many of these findings could be duplicated by similar studies elsewhere.

5.   In a retrospective study such as this, it becomes difficult to eliminate the impact of cognitive dissonance. Therefore, caution should be exercised while interpreting the results. One way of overcoming this bias is by regularly interviewing the respondents and collecting the information on "as it happens" basis.

6.   The characteristics of the interviewer (e.g. age, gender, education, personality) may have influenced the interview situation which, in turn, could have affected the data. Being young, middle class and female, the interviewer bias may have affected the quality of the data gathered. The questionnaire, originally constructed in English and later translated into Gujarati with some help from experts, was hoped to reduce communication problem. The fact

that the researcher came from the same community and spoke the same language, was an advantage in communicating and interacting with the respondents. Despite certain advantages in studying an alien culture (a method much preferred by social anthropologists), it is often difficult to get accepted and understood by the respondents. Since the researcher was basically studying the cultural milieu which was familiar to her, these potential problems were to a large extent overcome.

11.5. FUTURE RESEARCH

Given the complexity and dynamics of the phenomenon of utilisation, it is not possible to deal with all the ramifications and interactions suggested by the framework. The limitations of such a study should be recognised and the need for further research highlighted. In the present study, only a few of the myriad of possible hypotheses which could be derived are examined. These have been selected on the basis of available information and the importance of the issue. Similarly, it was assumed that the variables and indicators thus selected give a reasonable opportunity to apply the framework. A future study could attempt to test variables and indicators not selected in the study.

The conceptualisation of utilisation behaviour as a decision-making process as well as the introduction of the societal context raises some specific and intriguing questions to which future research may be directed. By examining the relationship between cultural and medical ideology and health behaviour, the case for inclusion of the societal context in the framework would be further strengthened. Studies in future might examine the how cultural notions are expressed through lay concepts and behaviour.

The study recognises the complexity in attempting to define and measure utilisation behaviour. This is particularly difficult, as very little research has been undertaken on utilisation behaviour in the pluralistic setting of Bombay. The present study makes a modest beginning towards gaining an insight into the phenomenon by looking at a fairly large sample from south Bombay. This study could be regarded as a feasibility study in many respects. It was designed as an exploratory study into the various factors affecting utilisation and to conceptually reformulate its definition in the light of the transient nature of both illness and utilisation. As a result, it identifies the relationship between the explanatory variables and utilisation behaviour. This not only provides a plausible theoretical framework from which to generate future investigations, but also enable them to be conceptually and empirically more specific and precisely directed.

APPENDIX 1

DEFINITION OF 'INDIGENOUS' AND 'WESTERN' MEDICAL SYSTEMS

The terminology referring to different types of medical systems is full of ambiguity. The terms have often been used interchangeably and incorrectly.

Scholars have tried to classify medical systems in different ways (see Press, 1980 for more details). For example, Dunn (1976) distinguished the systems on the basis of geographical location (*local*, *regional* and *cosmopolitan*). Foster and Anderson's (1978) dichotomy was based on causal attribution (*personalistic-naturalistic*). While Fabrega (1974) divided systems according to their overall orientations (*personal-impersonal*), Ackerknecht (1946) did so on the basis of cultural advancement (*primitive-modern*).

When different systems are grouped on the basis of several common features, there is always a danger of commonality being either superficial or incorrect. As pointed out by Press (1980), no two systems are same. Such

> "lumping of one, or perhaps several systems in contrast with all others is not unlike the lumping of human races into two categories: caucasian and others. It focuses upon the characteristics - of one system as typological bases for all systems" (Press, 1980 pp.45-46).

In this study, whenever possible the medical systems are referred to individually. Whenever necessary the collective negative terms like "non-Allopathic systems" have been used to isolate Allopathy and avoid confusion over "non-indigenous" systems like Unani and Homoeopathy. In unavoidable situations, an exception is made in the case of Unani which is considered an indigenous system. The non-Allopathic systems which do not have a scholarly tradition and are not officially patronised are referred to as non-formal systems. These comprise the Popular (e.g. Naturopathy, lay care) and Sacred (e.g. spiritual healers, sorcerers) sources. The following section provides the rationale for doing so.

<u>NON-ALLOPATHIC FORMAL MEDICAL SYSTEMS</u>: The majority of the popular terms like *primitive*, *folk*, *traditional*, *fringe*, *unofficial*, *irregular*, *indigenous*, *classical*, *ancient*, *personalistic*, *ethnomedicine*, *alternative*, *complementary*, *magical* are neither adequate nor correct. Historically speaking, the medical systems of the "natives" were referred to as *primitive* medicines by the early western researchers. Gradually, as the focus shifted to rural cultures, this pejorative

term was abandoned in favour of *folk*. However, the terms like *folk* medicine have been used too loosely. In the words of Press (1978), it is "everywhere used, yet nowhere adequately defined" (p.72). Sweeping generalisations have been made and the term folk medicine could refer to any non-Western, non-official or non-written medical tradition. It has been used to refer to non-formal forms like country medicine as well as the formal ones like the *Ayurvedic* system.

The use of terms like *fringe*, *unofficial* and *irregular* incorrectly reduce these practices to quackery. Similarly, the term *ancient* appears to be inappropriate in the light of the fact that these systems continue to remain firmly established and thriving in their modern forms. The term *alternative* system incorrectly leads to an assumption that there is a universal medical system and the rest of the systems provide an alternative to it. By definition, a *holistic* system deals with human beings as single entities of mind and body, enveloped in biological and cultural milieu. It too can be a misnomer when applied to the non-Allopathic systems like Homoeopathy. The *traditional-modern* or *traditional-scientific* dichotomies are unsuitable for the indigenous systems of India and China. Take for instance the *Ayurvedic* system. Although it is generally considered to be a traditional system, it has attributes of a scientific system (Leslie, 1976). It has

> "more in common with modern medicine than with other traditional medical cultures" (Young, 1983 p.1205).

The Ayurvedic epistemology can be shown to be scientific and in some ways superior to that of Allopathy (Trawick 1987). Secondly, the term *traditional* incorrectly suggests that these systems "are out of date, inappropriate and inadequate for present day health needs" (Maclean and Bannerman, 1982 p.1815). However, these systems are not stagnant but continuously changing and modernising. Therefore, terms like *modern* and *scientific* generally reserved for Allopathy, are equally applicable to some of the non-Allopathic systems.

Contemporary medical anthropological literature prefers to use terms like *"indigenous"* or *"native conceptual traditions"*. But the use of terms like *indigenous* can be questioned too. As Leslie (1974, p.93) has pointed out

> "the term *indigenous medicine* is used in India to refer to the folk and learned dimensions of traditional cultural medicine, together with the classical text".

Similarly, Unani and Homoeopathic systems - which in reality are of non-Indian origins - tend to be classified as *indigenous* by official (C.C.R.I. p.1) and unofficial sources.

ALLOPATHIC MEDICAL SYSTEM: The terms used for Allopathy (e.g. *western, modern, scientific*) are not free from criticism either. Occasionally, it has been called *modern western scientific medicine.* Besides being a mouthful, it assumes that other systems are inferior and non-scientific. As Evans-Pritchard has suggested, scientific world view is a function of a particular culture and does not connote superiority. Allopathy is generally referred to as *modern* medicine, but it "has not always been *modern*" or *scientific* (Riley 1977, p.549). According to Young (1981)

> "most of the medical knowledge that is produced in Western, professional, medical practice must be described as non-scientific" (p.382).

On the other hand, when a broad definition of science is used both folk and secular medicines can be shown to be scientific (Dunn, 1976). According to Malinowski (1954)

> "even the lowest savage communities have the beginning of science, however rudimentary" (p.34).

As mentioned earlier, the non-western secular systems (like Chinese, Ayurvedic) are also considered to be scientific.

Furthermore, many systems like chiropody, osteopathy, biofeedback, Gestalt/Rolfing which have originated in the west and continue to be practised today are rarely referred to as *western* in the east and west. Not only that, in the west such sources of care may be considered "deviant" (McCorckle, 1961) and ordinarily denounced. Homoeopathy, which originated in Germany and was popular in Europe and America until early twentieth century, is rarely referred to as a *modern* and *western* system. Moreover, these terms are relative and carry different connotations for most people. For example, Homoeopathy is considered to be an *indigenous* and *traditional* medical system not only by the Indian people, but also by researchers like Bhatia et al. (1975) and the Indian Government, who until the seventies grouped Homoeopathy together with *Ayurveda* and Unani as *indigenous.*

As a result, the term Allopathy (originally used during the nineteenth century) has been preferred for the modern western medicine. The remaining formal systems

(indigenous and foreign) have been either individually referred or grouped under a generic term like the non-Allopathic systems. Although, each of the non-Allopathic systems has its own distinctive characteristics, they share several common features of causality, treatment etc. The similarities provide the basis for grouping them under a single head. Although there is a general awareness, amongst laymen and professionals, of the differences between medical paradigms, they tend to perceive non-Allopathic systems as a group. The non-formal medical options which do not involve magico-religious forms have been grouped as Popular. Those forms wherein the natural and the supernatural are combined have been termed as Sacred sources.

APPENDIX 2

DISEASE AND ILLNESS

Most people use the terms "disease" and "illness" interchangeably to suggest some form of impairment. Despite some overlap, many scholars prefer to distinguish between *disease* and *illness* (Fabrega, 1975, 1978; Cassel, 1976; Eisenberg, 1977; Kleinman, 1980; Eisenberg and Kleinman, 1981). This is done primarily to structure reality rather than to separate the two entities on medical grounds.

A simple distinction made by Helman (1984) captures the difference between the two terms. According to him, *disease* is something an organ has and *illness* is something a man has on his way back from the doctor. The term *disease* refers to the pathological state as defined and institutionalised by the medical sciences. Different aspects of the *disease* (e.g. aetiology, prognosis) are assumed to be universal, constant and objectively verifiable in a laboratory. Whereas *disease* is the "abnormalities in the structure and function of body organs and systems", *illness* is the "experiences of disvalued changes in states of being and social function" (Eisenberg, 1977 p.11). *Illness* includes the diseased state as well as the social, personal, and cultural elements. Since *illness* is made meaningful by individuals, their families and culture, in its extreme form there can be as many illnesses as there are people. Both *disease* and *illness* can exist independently of each other. As a result, in an asymptomatic condition (clinically judged to be a *disease*, but does not entail any functional impairment), an individual may not consider himself to be ill and vice versa. Whether a *disease* is considered an *illness* or not depends on social norms.

The identification and cure of a *disease* is specific to the nature of pathogen but in an *illness*, it depends on the subjective perceptions and expectations of people and their culture. As a result, according to Eisenberg (1977) "patients suffer from *illness*; doctors diagnose and treat *disease*"(p.9). It is the experience of *illness* which generally prompts people to seek help. Medical systems vary in terms of emphasis they place on *disease* and *illness*. According to Fabrega (1978), while most non-Allopathic systems deal with *illness* aspects, Allopathy handles *disease*.

In the study, the term illness or ill-health have been preferred to disease since it concentrates only on respondent's perception and actions. The study does not make any attempt to corroborate with clinical evidence.

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APPENDIX 3

DEFINITION AND ROLE OF MEDICAL SYSTEMS

According to Press (1980), the consensus within the Anthropological literature on "the most basic concept - medical system" is limited. He further adds that "there is no definition which does not contain items contradicted by other" (p.45). This is not surprising, as medical systems not only have many roles and goals, but are complex in their structure and function.

A medical system or tradition is a vast complex of all the clinical and non-clinical activities in the sphere of health. It is a social artefact which provides explanation of causes, accepted forms of treatment, sick-role behaviours, and methods of prevention. Thus, its scope is not merely limited to the curative aspects but embraces all educational and preventive ones. As a form of social control, it defines and deals with deviance.

Essentially, there are two constituents of a medical system/tradition. The first is the conceptual component which deals with the theoretical aspects like classification, causality and explanation of diseases as well as ways of treating them. The second comprises the procedural aspects like rituals, apparatuses, materia medica and skilled personnel. Both aspects are present to varying degrees in all medical systems. In offering the general criteria for identifying, establishing and managing episodes and their outcomes, a medical system reinforces cultural norms. Unlike philosophy, a medical system cannot dawdle in paradoxes, it must choose a path, even if it is inadequate and partial. Therefore, there is a continuous interaction between meaning and action, representation of the societal views and adjustment to the environment. In the words of Press,

> "medical systems and world views are dependent variables, a product of their ecological and societal contexts" (1980 p.54).

Needless to say, in this study, the emphasis has been on the socio-cultural dimension rather than the bio-chemical aspects of the medical system.

APPENDIX 4
THE INDIAN MEDICAL CULTURE: EMERGENCE OF PLURALISM

A brief history of how the health-care system in India has come to evolve is necessary to provide a suitable background to this study. This knowledge of the socio-cultural foundations is expected to give an insight into the emergence of a complex but unique structure of the medico-cultural milieu, wherein different medical systems and traditions not only co-exist but also influence each other.

The foundations on which present day Indian medical culture stand are unparalleled in the world in their variety and antiquity. Archaeological excavations in the Indus valley show that the residents of the ancient cities of Mohenjodaro and Harappa (almost 5000 years ago) had a sophisticated knowledge of sanitation, water supply and engineering which, according to Marshall (1931), was far more advanced than other cultures of that period. Some food materials found at the ancient sites are being used for medical purposes even today.

It is difficult to ascertain the exact origins of the indigenous medical systems of *Ayurveda* and *Siddha*. According to the texts, they are of divine origin. Despite mysteries surrounding the time and manner of their origin, they are believed to have established themselves during the Vedic period- at least a millennium before the beginning of the Christian era (*Siddha* originated a little later than *Ayurveda*). It is believed that *Ayurveda* originated from the imprecations, chants, sorcery and primitive medicines written in *Atharvaveda* - the last of the four *Vedas*. These early texts, like other medical traditions of that period, are

> "Couched in terms of imprecations against demons, sorcerers, enemies; of charms for expelling diseases wrought by demons or sent by the gods as punishments for man's sin" (Zimmer 1948 pp.1-2)[1].

But subsequent texts were more empirical and rational in their content.

The classical texts were written by Atreya and Charak during the closing days of the *Vedic* period. Charak is acknowledged to be the 'father of *Ayurveda*' and his text "*Charak Samhita*" continues to be the basic text for a student of *Ayurveda* today. The art of surgery also reached its peak during this period. Susruta, the father of

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[1]Not unlike Sigerist's description of early Greek medicine as "a mishmash of religion, magic and empirically acquired ideas and practices" (1958 p.1).

Indian surgery, compiled his classic "*Susruta Samhita*" in the beginning of the Post-Vedic period. A high degree of proficiency was attained in surgery and the Indian surgeons regularly performed rhinoplasty, amputations etc.

This period (between 600 BC. and 600 AD.) is considered to be the golden era of the Indian medical science. During this period, *Ayurveda* is believed to have been introduced to China (Unschuld, 1979 p.339). The *Ayurvedic* system became a favourite amongst the Buddhist kings. Under the royal patronage, it witnessed tremendous growth. Medical education was imparted by the State universities of

> "Takshashila and Nalanda where scholars from far off lands like the Arab countries, South East Asia, etc. came to study *Ayurveda*" (C.C.R.I. p.1).

There are records of hospitals being run for both human beings and animals. Unlike the Greek hospitals which were essentially temples around a spa, Buddhist hospitals were, like those of today, institutions where patients were housed, fed and cured.

As the popularity of Buddhism declined, public hospitals and schools closed down. The only relics of the early hospitals found today are the welfare institutions for protecting and treating sick animals. During the beginning of the Christian era, surgery was stopped because touching of dead bodies was considered to be polluting. The period after the sixth century witnessed a gradual decline of the *Ayurvedic* system, especially the knowledge of anatomy.

Subsequently, each new wave of migrant-conquerors introduced new medical systems. Amongst them were the Muslim conquerors who brought the Graeco-Arabic medical system called *Unani-Tibbia*. The *Unani* practitioners known as *hakim* began to enjoy royal patronage and flourished - especially in northern India.

The next significant period for the Indian medical culture was the colonial rule when the 'western medicine' as practised in Europe during the eighteenth and nineteenth centuries was introduced. It was neither monistic nor scientific. It differed from its present form and included blood letting, scarification, hydropathy and Homoeopathy. Initially, the Europeans (English, Portuguese etc.) used the indigenous medicines and employed local practitioners. However, the practice was gradually discontinued. A Portuguese physician (the Portuguese were the first to colonise India) is known to have collaborated with the indigenous practitioners over the treatment of an Indian Prince. The English who soon followed, established the first 'western'

hospital in Madras in 1664. Subsequently, they established more hospitals for soldiers and expatriates. Slowly, the health services network was expanded and made available to the local Indian population. As the popularity of Allopathy increased both in the West and in India, the British Government set up medical colleges (as early as 1822) and began training Indian doctors. They laid the foundations of the present national health-care delivery system of India, with its elaborate infrastructure of Public Health and curative services based on Allopathy.

During the hey days of the Raj, *Ayurveda* and other non-Allopathic systems were relegated to the background. Their almost total neglect, led to their stagnation and decline. The Indian people came to identify the Allopathic system with the British. The association was so strong that Allopathy came to be known as '*angrezi*' or English medicine. The indigenous health sector was virtually wiped out in the urban areas and fell out of favour with the elite and the intellectuals. Although attempts were made by the princely states to establish indigenous medical colleges at the turn of the century, their efforts were insufficient to check the rapidly growing popularity of Allopathy and the destruction of the non-Allopathic sector.

During the colonial rule, Homoeopathy was still in its infancy. Yet it survived the competition from Allopathy as well as the lack of government patronage. Bhardwaj (1980) attributes its popularly to it being "Western and modern without being colonial" (p.214). He further adds that,

> "its early expansion was not dependent on the efforts of the alien power, but rather on the efforts of the Indian people themselves" (1980 p.214).

Probably, this disassociation from the ruling power is behind the popular image of Homoeopathy as an indigenous system.

With the rise of nationalism at the turn of the century, there was considerable opposition to the western education and way of living. *Ayurveda* and *Unani* medical systems assumed importance amongst the Indian nationalists as the symbols of the antiquity and greatness of the Indian civilisation. The support of extreme fundamentalists - desiring a return to the *Vedic* civilisation - strengthened the movement to revive the national heritage further. More than three decades prior to independence, the Indian National Congress passed a resolution to encourage and revive the practice of *Ayurveda* and *Unani* (Udupa 1975, pp.54-55). During that

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period various institutions

"where teaching and training were imparted in the form of regular curricula keeping in view the traditional methodology" were started and the number had "reached 50 at the time of independence" (C.C.I.R. p.1).

After independence, successive Indian governments have extended support both Allopathic and non-Allopathic systems. The Indian government has set up a research organisations - similar to that of Allopathy - for testing the effect, validity and efficacy of non-Allopathic drugs, understanding their properties and carrying out comparative studies with Allopathy. A co-ordinating and planning body called Central Council for Indigenous Systems of Medicine was established in 1971.

APPENDIX 5

MEDICAL PLURALISM: PERSPECTIVES AND FOCI OF CONCERN

Social scientists have for long been fascinated with divergent paradigms and how they come to exist side by side in a medically pluralistic environment. As a result, the published literature on the subject is enormous, detailed and disparate. The perspectives and foci that emerge from this vast and varied literature, inter alia, are:

1. Although a medical system is principally grounded in science, it is also rooted in culture. The use of a medical system is essentially a social activity and is subjected to socio-cultural influences. Social scientists from varied backgrounds have approached the utilisation of medical options in both pluralistic and non-pluralistic societies. As a result of differences in research objectives and methodology, a vast body of empirical and theoretical literature has been gathered. While some researchers have attempted to understand medical pluralism as a manifestation of wider cultural and social processes, others have tried to classify and analyze different systems, their interrelationships, and respective popularity within varied groups.

2. During the colonial days, western scholars collected a large body of techno-empirical knowledge of the elementary indigenous medical systems, especially of the aboriginal and tribal cultures (e.g. Rivers, 1924; Ackerknecht, 1946) and the exotic spiritual aspects of healing like *shamanism*, symbolism, faith healing and altered state of consciousness (trance, spirit possession). Despite some bias created by the ethnocentricism of the researchers, these studies served to provide an initial insight into the differences and similarities between various cultures and their medical ethos. Subsequently, researchers have shown an interest in studying the parallels between 'traditional' and 'western' medicines and interpreted the beliefs and behaviours of the non-western people in the light of their western counterparts (e.g. *susto, mal de ojo*).

3. The success and failure of numerous public health programmes related to the introduction of Allopathy have attracted interest from specialists within public health and from outside (like psychologists, anthropologists, sociologists). The involvement of professionals from diverse backgrounds (Pearce, 1982)

has produced some insightful works on cultural change (e.g. Paul, 1955; Foster, 1962) and diffusion of innovations (e.g. Roger and Shoemaker, 1971). The effect of introducing Allopathic medicine and its impact (resistance, acceptance, competition, co-operation and adaptation) has been studied by many in India (Carstairs, 1955; Gould, 1957) and abroad (Erasmus, 1952; Mead, 1954; Saunders, 1954; Foster, 1958, 1962 et al.).

4. The status, functioning and popularity of various non-Allopathic medical systems and traditions has undergoes changes due to socio-eco-political forces as well as introduction of Allopathy in most societies. Many researchers have been interested in the changes in the traditional systems (e.g.Leslie, 1973, 1974, 1976; Topley, 1974) as well as changes in the roles and functions of the traditional healers (e.g. Landy, 1977).

5. As the freedom movement in developing countries intensified, a growing nationalistic spirit led to an increasing awareness about the national heritage. As a result, ancient medical systems, together with other traditions and values, were revived (Crozier, 1970; 1976). In countries like India, indigenous systems (like *Ayurveda, Unani*) became objects of national pride. Attempts were made to revive and restore some of the lost glory and popularity of these systems. This re-establishment process continued after independence with support from Governmental and private institutions as well as prominent individuals (Sigerist, 1951). This process of revival and continued survival of the non-Allopathic systems in a competitive environment has fascinated many social scientists.

6. Rapid social change as a result of colonisation, and modernisation in developing cultures created enormous problems, especially in the area of health-care. These societies were required to deal simultaneously with resistance to western concepts and practices on the one hand and dependence on them on the other. In recent years, an enormous demand for Allopathic medicine and public health has been created in developing societies which lack the infrastructure to meet it. The need to create efficient, acceptable and adequate health services has sparked off an interest in cultural conceptions of health, illness and cure related aspects (like causality, efficacy, management

and treatment of illnesses) of indigenous medicines as well as the ways various systems are currently being utilised and can be optimised.

7. It is now accepted that the indigenous medical systems are the main source of health-care in developing countries (e.g. Benyoussef and Christian, 1977; Jones, 1977; Pillsbury, 1982; Maclean and Bannerman, 1982). For example, in India, 80% of the health needs of more than 700 million people are met by the indigenous systems (Taylor, 1976). Similarly, international organisations like the W.H.O., have recognised the importance of the role played by the indigenous systems and healers in making health-care available in the developing world and believe that their "recognition, promotion, and development would secure due respect for a people's culture and heritage"(W.H.O,1978 p.13).

8. The World Health Organisation, in its attempts to achieve its target of "health for all" is showing considerable interest in the possibilities of traditional and modern medicines working in conjunction with each other to meet health related demands in developing countries, which otherwise lack financial and manpower resources to match the health-care available in the developed countries (e.g. W.H.O., 1981, 1982; Neumann and Lauro, 1982). In India attempts have been made by governmental organisations (e.g. Bhore Report, 1946 which was instrumental in formulating the health policies of newly independent India), and individuals (e.g. Taylor, 1976; Bhatia et al. 1975, Neumann et al. 1971) to explore the possibilities of integrating these medical systems.

9. In the West there has been increasing awareness about the limitations of Allopathic medicine (e.g. Powels, 1973; Illich, 1977; Ehrenreich, 1978) and the efficacy of Allopathic cures has been strongly challenged (e.g. Dubos 1959; McKeown, 1965). This disillusionment and dissatisfaction with 'Allopathy' has encouraged the search for and use of 'alternative medicines' in the West (e.g. Engle, 1977; Jelliffe and Jelliffe, 1977; Which?, 1986). Similarly, in the developing countries growing disenchantment with certain shortcomings of Allopathic medicine and its delivery has further boosted the revival of traditional systems. The inability of Allopathy to deal with

important aspects of culture (like supernatural aetiology) makes it unsuitable for societies in which these forces play a significant role in illnesses (Greenwood, 1981). Even in societies where they are not prevalent, the uncertainty of illness often leads people to alternative sources of care in search for meaning and reassurance. Not only that, in its search for an explanation and/or treatment for many diseases, Allopathy has occasionally turned to the knowledge and experience of the traditional medical systems (Leslie, 1974; Rubel and Sargent, 1979).

10. As societies become multicultural, medical pluralism becomes the norm. In complex societies, different cultural groups not only patronise the medical systems embedded in their respective cultures but also those of other ones. Many Governments and non-official bodies seem to recognise this and make different systems officially available (e.g. India, China, Malaysia). Despite overt or covert discouragement from Governments in non-pluralistic countries, alternative sources are known to exist and are utilised by a cross-section of individuals (e.g. Hong Kong, Japan, Turkey, Norway). Social scientists, government and health personnel in these societies are showing increasing interest in differential utilisation of multiple sources.

APPENDIX 6

ILLNESS DEPENDENT OR WITHIN ILLNESS USAGE:LITERATURE SURVEY

AUTHOR	YEAR	COUNTRY	SAMPLE SIZE	ILLNESS-SPECIFIC	WITHIN
GOULD	1957, 1965	INDIA	N=750	✓	
MADAN	1969	INDIA	N=500 (HH)		✓
KAKAR et al.	1972	INDIA	N=60	✓	
GODWIN	1972	INDIA	NOT GIVEN	✓	✓
BANERJI	1975	INDIA	NOT GIVEN	✓	
BHARDWAJ	1975	INDIA	VILLAGES	✓	
DJURFELD & LINDBERG	1975	INDIA	VILLAGES		✓
BEALS	1976	INDIA	NOT GIVEN	✓	✓
NICHTER	1977, 1978	INDIA	N=60(HH), 150	✓	✓
ERASMUS	1952	ECUADOR	NOT GIVEN	✓	
GONZALES	1966	GUATEMALA	NOT GIVEN		✓
WOOD & GRAVES	1976	GUATEMALA	N=320		✓
COSMINSKY & SCRIMSHAW	1980	GUATEMALA	N=35(HH)		✓
PRESS	1969	COLUMBIA	N=92		✓
DOBKIN DE RIOS	1981	PERU	N=95		✓
YOUNG	1981	MEXICO	N=62(HH)	✓	
SCHWARTZ	1969	ADMIRALTY ISL	N=41		✓
SLIKKERVEER	1982	ETHIOPIA	VILLAGES		✓
FOSU	1981	GHANA	N=60(HH)	✓	
LASKER	1981	IVORY COAST	NOT GIVEN	✓	✓
JANZEN	1978	LOWER ZAIRE	N=6		✓
SUSSMAN	1981	MAURITIUS	N=189		✓
MACLEAN	1965, 1967	NIGERIA	N=500		✓
ADEMUWAGUN	1976	NIGERIA	N=242(HH)		✓
IGUN	1982	NIGERIA	NOT GIVEN		✓
CREYGTON	1977	TUNISIA	NOT GIVEN		✓
COLSON	1971	MALAYSIA	N=305	✓	
HEGGENHOGEN	1980	MALAYSIA	N=100, 25(HH)	✓	✓
CHEN	1971, 75, 79	MALAYSIA	NOT GIVEN	✓	✓

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AUTHOR	YEAR	COUNTRY	SAMPLE SIZE	ILLNESS-SPECIFIC	WITHIN
DURKIN-LONGLEY	1984	NEPAL	N=1000+	✓	✓
AMARASINGHAM	1980	SRI LANKA	N=1		✓
HO et al.	1980, 1984	SINGAPORE	N=	✓	✓
KLEINMAN & SUNG	1979	TAIWAN	N=19		✓
LOCK	1980	JAPAN	N=50	✓	✓
LIEBAN	1976, 1981	PHILIPPINES	N=111	✓	✓

APPENDIX 7

THEORETICAL FRAMEWORKS OF MEDICAL TRADITIONS

Since medical systems and traditions are products of heterogeneous socio-cultural forces, there are wide differences in their conceptual, diagnostic, treatment and structural aspects. This section attempts to summarise these differences. The following gives a brief description of each of the medical systems to assist in identifying the points of departure. The simplified and abridged versions of these systems have been instrumental in formulating the health-related attitudes and behaviour of Indian people throughout the centuries.

FORMAL MEDICAL SYSTEMS

Besides Allopathy, these comprise indigenous non-Allopathic systems like *Ayurveda*, *Siddha* as well as alien ones like *Unani* and Homoeopathy. Unlike the non-formal systems (e.g. popular and lay traditions) these systems have been formally written down and are officially patronised.

NON-ALLOPATHIC FORMAL MEDICAL SYSTEMS

AYURVEDA: Literally translated, *Ayurveda* means science of life. The precise origins of *Ayurveda*, although lost in the mist of antiquity and couched in mythology, can be traced back to Vedic times. This makes it one of the oldest medical systems of the world. The eight branches of *Ayurveda* (internal medicine, surgery, toxicology, paediatrics, geriatrics, aphrodisiacs, diseases of the head and neck, mental and spiritual treatments) cover the whole range of medical specialities. Other specialities like bone-setting, rhinoplasty and dentistry have their origins in *Ayurveda*. Yoga too forms an integral part of *Ayurveda*. The following gives a brief description of the *Ayurvedic* paradigm.

The *Ayurvedic* paradigm is set on the premise that the cosmo-psycho-physical energies are held in a state of equilibrium. Therefore, any minor disturbance from diet, behaviour and climate can disturb the internal mechanism of the individual resulting in disease and decay.

The human body, according to Ayurveda, is composed of five elements or *mahabhutas* which form the basis of three fundamental constituents called *dosha* (literally means defects), *dhatu* and *mala*. Three *dosha* or humours, namely *vata* (wind), *pitta* (gall) and *kapha* (mucus) govern the physio-chemical and physiological

activities of the body, while seven *dhatu* or components (plasma, blood, flesh, bone, bone marrow, semen and fat) enter into the formation of the body. Three *mala* or excreta (sweat, urine, stool) are substances which are partly utilised in the body and partly thrown out. The individual's life rhythm is determined by his metabolic constitution or *prakriti* and choosing a way of life and environment compatible with it ensures health.

In *Ayurveda*, there is a complex system of identification and differentiation of an enormous variety of illnesses arising out of an imbalance in the three humours or *tri-dosha* i.e. the internal functions within the body. The doctrine of *tri-dosha* offers a means for locating the causes of an illness as well as for overcoming it. It therefore, plays a very important part in health maintenance, diagnosis and treatment within the *Ayurvedic* paradigm. The *tri-dosha* are said to be in a dynamic equilibrium with each other for the maintenance of health. One enjoys normal health when they are in balance. Each of these *dosha* are composed of the five *mahabhuta*. Each of these *dosha* have certain organs as their basic *sthan* or seat where they are primarily located. Any disturbance in the balanced state of the *dosha* either quantitatively and qualitatively results in a diseased state of either the body or the mind or both.

The preponderance of one or more of the *dosha* results in an imbalance which can be corrected by dietary regulations - restrictions and additions - as well as medical treatment which can counter the excess. The *Ayurvedic* art of healing and prevention, therefore, involves thorough maintenance of homeostasis wherein *dosha* must not only maintain a stable internal environment but also be in harmony with the external environmental energies. Unlike Allopathy, bacteria is not the primary cause of disease in *Ayurveda*. In the latter, the body usually attempts to resist and eliminate the invading bacteria. An infection is caused only when the body defence are inadequate. Since the human body has the capacity to resist disease, there is greater reliance on prevention and building up of adequate defence with healthy diet and proper environment. Surgical and medicinal intervention is discouraged and undertaken as a measure of last resort in *Ayurveda*. Instead, it tries to prevent and cure diseases by dietary regulation.

Prakriti is one of the most important concepts in the *Ayurvedic* paradigm.

Literally translated, it is the inborn constitution of an individual. Each individual has a unique set of physical or mental characteristics which s/he is born with. At the time of conception, if the *dosha* are in equilibrium the child would have a balanced constitution. But, if there is an excess of one or more of the *dosha*, the child will have a physical and psychological make-up which is characteristic of the excess *dosha*. This peculiar mode of reaction to the environment remains until the person dies.

The *Ayurvedic* remedies are known to act through physiological mechanisms and do not normally possess acute pharmacodynamic actions. They are prepared from about 700 naturally occurring substances from plants[2], animals and minerals (including jewels)[3]. Although, the basic sources of obtaining the ingredients are limited, numerous formulations may be derived from the permutations of these ingredients. Besides approximately 8000 preparations which have been listed in the various texts, practitioners have their own variations and original preparations (CCRI, 1977 p.22). One of the duties of a practitioner, according to *Ayurveda*, is to gather, manufacture and dispense medicines. In fact, their expertise is judged on the basis of their knowledge and skills in gathering the medicinal raw materials. This practice continues today and thousands of practitioners have sufficient knowledge of manufacturing at the dispensary level.

SIDDHA: The literal meaning of the term *Siddha* is perfection or the saints who have achieved perfection or self-realisation. While *Ayurveda* is a product of the aryan culture in the north, *Siddha* has its roots in the dravidian culture of the south. While *Ayurveda* was a gift from Lord Brahma and transmitted to the humans by various Gods and neo-Gods, the *Siddha* system was handed over from Lord Shiva through various Gods and Goddesses to 18 *Siddha*. Therefore, it is also known as the *Shaiva* school of medicine.

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[2]Different parts of the plant-roots, stem, bark, seeds, leaves, juices, resins, stalks, fruits, blossoms, ashes, oils, thorns- give different therapeutic results and the same part collected during different seasons has different therapeutic uses.

[3]Minerals are considered to be very affective in Ayurvedic system. The Ayurvedic texts are full of elaborate processing techniques wherein the minerals are precipitated or boiled with juices and decoctions of plants, and calcined before use so that they are non-toxic, absorbable and therapeutically potent.

Since the *Shaivites* have a different concept of the universe, the *Siddha* system differs slightly from *Ayurveda*. For example, the Hindu philosophy prescribes two forms of attaining salvation, one is to leave behind the mortal body, the other is to immortalise it by surpassing the boundaries of time and space. *Siddha* concentrates on the latter by trying to achieve a perfect body by maintaining it with medicines and thus arresting decay. It has, as a result developed a separate discipline for longevity and immortality of the body. The *Siddha* medicines, unlike its Ayurvedic counterparts, are prepared mainly from mineral and metallic substances (especially mercury and sulphur). Since these substances do not decay they are considered to be capable of offering immortality. More than 3000 medicinal formulae have been listed in over 500 *Siddha* compilations.

UNANI-TIBBIA: The *Unani* system has its origin in the Greek medicine. The word itself was derived from *Ionian* meaning Greek. The Arabs, who popularised the system in India are credited for this Indo-Greek product. Hippocrates (known as Bukrat in the *Unani* literature), is considered to be the father of this medical system. There are many similarities between the *Unani* and other systems, especially *Ayurveda*. Like the *Ayurvedic* concept of *Prakriti*, the *Tibiat-E-Muddabir-E-Badan* is the biological foundation of an individual's health in *Unani*. Like the five basic *Panchmahabhuta* in *Ayurveda*, there are four elements which combine to produce the organs, spirit and energy. The *tri-dosha* of *Ayurveda* has a counterpart in four *Akhlat* which are responsible for health and any disturbance in them produces illness. Tibbia is a variant of Unani medicine with more emphasis on supernatural healing.

HOMOEOPATHY: Many elements of Homoeopathy (coined from a Greek word which means "like treatment of diseases") were in existence before a German physician, Samuel Hahnemann developed it at the turn of eighteenth century. It does not isolate any organ in diagnosis or treatment, but concentrates on the reaction of the whole body. Unlike Allopathy, Homoeopathy aims to effect a cure by aggravating the symptoms, not by alleviating them. Based on the law of similarity, Homoeopathic medicine initially heightens the symptomology and relies on responsiveness of the bodily defence mechanism to effect cure. The patient is given a remedy which will produce symptoms similar to his disease in a healthy person.

There are a lot of similarities between the *Ayurvedic* and Homoeopathic

paradigms. The treatment is very subjective and there are no fixed remedies in either. Both are based on a fundamental premise that the illness process is highly variable and has its own dynamics. Various levels of a disease are separated and a series of remedies are used to unravel and dispel the entire condition. The remedies change as the picture of the disease changes. Treatment strategies are formulated in the light of the evaluation of the effects of the previous treatment. A successful cure combines profound diagnosis with an insight into matching medicine. It is, therefore, not at all surprising to find that despite its alien origins, Homoeopathy is often considered to be an indigenous system.

ALLOPATHY

Since the approach of the "modern western scientific medicine" in the initial days included reactive response to disease, the term Allopathy is derived from a Greek word which means the "other treatment" or "opposite effect". Allopathy in the 19th century was nothing more than one of the several available systems in the West. Before the Cartesian revolution, it addressed the interplay between body, mind and soul, and treated patients with medical and spiritual methods just like the non-Allopathic systems. Before its focus shifted to the study of bodily organs and external agents responsible for illness, physical as well as psychological, social, spiritual and environmental aspects were taken into consideration while dealing with an illness.

Allopathy, as it is practised today, sees body in terms of parts which are knowable and treatable in isolation from psycho-social and cosmic aspects of a person. Disease is considered to be a malfunction in need for correction through surgical or chemical intervention. Until all possibilities of a physical cause have been objectively ruled out, it disregards the complex interplay between physical and non-physical variables (e.g. social, psychological). Therefore, the subject of medical treatment is the disease in the body, its organic causes and mechanical responses to its demonstrated paths through various medicinal, surgical and psychological treatments. There is an overriding tendency to reject inexplicable cures and concentrate heavily on searching the categories of causes and treatments which can be classified. Unlike other systems, isolated explanation of causes and cures which cannot be generalised into a universal law are proscribed as legally and ethically

unacceptable. As a result, there is a high degree of specialisation and the patient tends to get referred to different specialists to cover different aspects of symptoms and their cures. There are numerous specialities which contribute and test the knowledge and treatments, and nothing exists beyond this. The patient is seen as a living example of universal laws based on his/her chemistry, functions of organs, clinical evaluation, laboratory investigations, statistical probabilities of the prognosis and cure using medical and surgical techniques.

What sets Allopathy apart from any secular medical system is that its practices are under continuous mainstream scientific review and criticism. Additionally, it has a high level of professionalisation.

NON-FORMAL MEDICAL SYSTEMS AND TRADITIONS

Most non-secular forms of treatments (except Yoga and Naturopathy), have no written tradition. They have been passed on by word of mouth for generations. These popular and folk sources of care[4] are the most ancient and universally found medical traditions. As stressed by Fabrega and Manning (1979) the popular and folk medicines

> "always comprise the fundament of knowledge, beliefs, and practices, even where alternatives have developed, been imported, or are imposed by political or economic fiat" (p.41).

However, in recent years there has been a growing awareness about the potentials of these systems and attempts have been made to systematically identify, record, preserve and popularise the knowledge of these traditional forms. The Dalai Lama, for example, has set up a research and training institute in Tibetan medicine in India. Various local and folk traditions are also being studied systematically and empirically, and their knowledge is being used in health programmes.

POPULAR AND FOLK CARE

YOGA: According to the Yogic paradigm, the aim of each individual is to attain

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[4]As far as possible, in this study different forms of treatment have been considered separately. But it is not necessary to isolate different types of popular and folk sources. However, some confusion over terminology needs to be avoided. According to Leslie (1974), the term "popular medicine" not only includes the lay sources, but also the professionals who deviate from the prescribed teachings and practices of their medical schools. However, the scope of this term is restricted to the non-secular and lay medical traditions only in the present study.

moksha or salvation through intellectual, spiritual and physical health. Despite its roots in *Siddha* and *Ayurveda*, in yogic healing there is no administration of any substance of chemical, physical or botanical origin. The emphasis is on prevention and improvement of health by regular rigorous mind and body exercises. Although, the yogic form of treatment is self-administered, some Yogis can - with their harnessed and enhanced powers - cure the ailment of their patrons.

NATUROPATHY: By definition, Naturopathy believes in the capacity of the body and the environment to cure an illness. It advocates "vis medicatrix natura" i.e. the origins and treatments of most diseases are similar. Basically, it treats an illness through rest, total or partial abstinence from food, dietetics (mainly non-spicy, non-oily vegetables and lots of fruits), light exercises, purgation through enema, massage and hydrotherapy. It not only uses air, sun-rays, mud and other natural materials for treatment but also meditation and prayers. Although the Western and Indian concepts and practices are very similar, the Indian version is believed to be less sophisticated in terms of equipment and techniques. There is no single doctrine advocating the principles of Indian Naturopathy, but it has a lot in common with *Ayurveda*. As a result, many routines and practices advocated by *Ayurveda* and Naturopathy are believed to be embedded in the culture and therefore, regularly followed by many Indians.

MISCELLANEOUS TRADITIONS: Because of geographical and cultural variations in India, there are differences in the disease patterns and therapeutic resources at the regional levels. As a result, numerous loosely organised medical traditions and practices, specific to the local needs have been developed. They are relatively simple in terms of their concepts and practices. Although during their development, they may have been influenced by various secular medical systems, their relative isolation due to lack of communication and common language has given them a strong regional flavour. For example, systems like *Emchi*, *Bhotia Chikitsa* and Tibetan medicine arouse from the introduction of the Buddhist version of *Ayurveda* in Tibet and the neighbouring area along with Buddhism. As a result, whereas *Ayurveda* and its Buddhist version also use plant and mineral substances, the Tibetan medicine relies almost exclusively on "*Yoga Tantra*".

Also present are traditions which were prevalent in Europe before the advent

of Allopathy (e.g. magnet therapy, hydrotherapy, reflexology) as well as in other countries (e.g. Acupuncture). In the process, these eastern and western forms of treatments have also acquired an Indian flavour.

LAY HEALTH CARE: Often ignored, lay care is one of the oldest and most important sources of treatment available to an Indian. A large portion of this form of care is based on knowledge and application of herbs thought to have curative potentials. It is neither homogeneous nor unified in its origin or patronage. There is an enormous regional, religious, ethnic and communal variation. Each section of the population has their own home remedies and techniques, many of which are simplified versions of Secular medicines.

SACRED MEDICAL CARE

Essentially, the sacred[5] medical care comprises two distinct spheres, i.e. those based on religious and magical causes and/or responses[6]. These supernatural forces, agents and acts continue to perform a distinct medical role by providing the logic and explanation behind the cause of illness and related anomalous phenomenon as well as their treatment. Due to enormous variation, it is difficult to identify and discuss all forms of sacred care. Moreover, different forms enjoy popularity amongst different groups and at different times in the same group. While some sacred

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[5]Since secular systems like classical Ayurveda include some magico-religious treatments, it may be difficult to isolate the sacred care from secular and popular medical care. But the secular traditions mainly rely on empirical and rational forms of treatment whereas the sacred care is predominantly supernatural in etiology and treatment. It is administered by healers other than the practitioners of secular medicine.

[6]Field (1974) has distinguished and defined them on the basis of locus of control. According to him, the religious response "encourages their (passive) acceptance as a result of some higher force(s) or power over which man has no control, and whose designs are often mysterious or capricious". On the other hand, the magical response "is an attempt to actively deal with illness seen (often in anthropomorphic terms) as the result of the actions of gods, divinities, witches or other occult forces that must be palliated, neutralised, or in some fashion affected so that, in turn, will affect the course of illness" (p.569). Since the emphasis of study is elsewhere, such a distinction may be too detailed. Moreover, both responses may be interlinked in many situations.

therapeutic cults get established and continue to be popular over many generations[7], many gather popularity in specific problem areas like epidemics and soon get replaced by new cults which arise in response to fresh demand. As a result the following narration describes some general principles and rationales.

Common to all sacred sources is a premise that illnesses are caused by natural as well as supernatural agents. Both mental and physical illnesses could be caused by breaking religious, moral and social laws. That is to say illnesses are caused by angered deity, curse, malevolent and evil spirits, bad planetary influence, an ancestor with un-departed or wrongly departed soul, *athermic* or forbidden conduct, immoral actions, sexual excesses, corruption of *jiva* or soul, evil eye, jealousy, etc. However, the degree of involvement of the "invisible" element may vary in different illnesses and at different times in the same illness. While some fall entirely, others rest either marginally or fall totally outside the supernatural sphere. Similarly, a long enduring illness of natural origins may acquire supernatural causation as a result of its persistence. Ultimately all illnesses are believed to have supernatural causes, based on theory of *karma*.

Fundamental to all sacred therapy is the belief that man has limited capacity, and therefore has to obtain assistance from Gods, spirits or diviners. The supernaturally caused ill-health can be dealt with different forms like incantations, vows, prayers, wearing of amulets and sacred threads, applying a black spot, hanging various objects (like lemon, chilies, old shoes), keeping slips of paper with *yantra* (numerical figures and signs) or *mantra* (powerful words, prayers or statements from sacred books, sages and saints) on person or in the house. In addition, drinking sacred water, applying ashes or sanctified water on body or diseased organs, wearing stones with powers to counter the negative influence of planets, lighting *deep* (a small lamp) or fire, piercing or branding certain parts of the body can also assist in healing. Medico-religious rituals like exorcism, requesting help of a medium or familiar friendly spirits, penance, pilgrimage, confession, charity, sacrifice, pleasing the spirits and deities, rectification of immoral thought or conduct, celibacy,

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[7]See Carstairs (1955) for a description of some techniques and curers as observed in villages three decades ago. Although many are still available, widespread modernisation has resulted in a changed role and reduced dominance of supernatural and magic. See Marriott (1955) and Henry (1977) for similar descriptions.

blessings, worshipping certain trees etc. are other forms of identifying and controlling ill-health. Although Astrology[8] is never used as a form of therapy, it helps in dealing with the unknown by preparing for the inevitable. It is based on a premise that illnesses and vulnerable periods can be predicted on the basis of planetary influences and at times can be reversed.

Depending on the causal attribution, there is either total or partial reliance on sacred sources. While some illnesses which are assumed to be of supernatural origin from the start are treated exclusively with magico-religious rituals, most are treated by combining these rituals with medicinal plants and substances.

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[8]Indian astrology which is based in ancient scriptures written in Sanskrit and Tamil languages is often combined with its Chinese and Western counterparts.

APPENDIX 8: QUESTIONNAIRE ONE (TRANSLATED)

We have various medical systems available to treat illnesses. For example, Allopathy or the western medicine, *Ayurveda*, Homoeopathy, Unani. Listed below are several common illnesses. Please indicate your preference for a medical system as follows. Please write (1) in the box pertaining to a medical system which you would prefer to treat as a first choice. If that system is not successful and you were to choose another as a second choice, then please mention (2) in the box referring to that system. Similarly put (3) for the system you would use as a last resort for that illness. For example, if for Malaria your first choice is Allopathy, put (1) under the column marked Allopathy. Supposing you preferred Homeopathy instead, please put (1) under the column marked Homeopathy. If that fails and you would opt for Allopathy, put (2) in that column.

	All opa thy	ayu rve d	Homo eopa thy		Allop athy	ayur ved	Homo eopa thy
DIARRHOEA				TONSILLITIS			
VOMITING				PARALYSIS			
CONSTIPATION				MALARIA			
CANCER				ASTHMA			
GALL BLADDER STONE				DIABETES			
PILES				LEPROSY			
ULCERS				'KODH'			
PALPITATION OF HEART				HEART ATTACK			
TEMPERATURE				DEEP CUT			
COLDS				OBESITY			
TOOTHACHE				MIGRAINE			
T.B.				PLEURISY			
RHEUMATISM				'JALODER'			
ACIDITY				B.P.			
TYPHOID				FRACTURE			
JAUNDICE				DANDRUFF			
DISEASES OF WOMEN				SKIN DISEASE			
DIZZINESS				CATARACT			
				'GAS'			
WEAKNESS				COLITIS			
SLEEPLESSNESS				CHICKEN POX			
APPENDICITIS				URINARY PROBLEMS			
HEADACHE				COUGH			

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QUESTIONNAIRE TWO (TRANSLATED)

People use different methods of treating different bodily complaints and illnesses. To illustrate, for sore throat, someone would chew a Vicks tablet another may prefer to use turmeric powder. Please fill in what you would first do on experiencing the symptoms as well as what you would do if the symptoms still persisted. In the third column please write how long you would wait before going to see a professional vaid or a doctor. If you would see him/her within few hours, please put (1). If you prefer to wait fro a few days but less than a week, please indicate with (2). Similarly, for few weeks but less than a month, please put (3). If you would wait for at least a month or more, please put (4).

	FIRST STRATEGY	NEXT STRATEGY	GO TO DR.
ACIDITY			
COLDS			
COUGH			
TEMPERATURE			
NOSE BLEED			
HEADACHES			
DIZZINESS			
UNCONSCIOUS SPELLS			
ASTHMA			
STOMACHACHE			
CONSTIPATION			
DIARRHOEA			
BLOOD IN STOOL			
PILES			
INTESTINAL WORMS			
RHEUMATISM			
BODILY ACHE			
URINARY PROBLEMS			
CHEST PAIN			
EARACHE			
TOOTHACHE			
ACNE			
MENSTRUATION RELATED PROBLEMS			
WEAKNESS			
SLEEPLESSNESS			
LOSS OF APPETITE			
SKIN DISEASES			
CUTS			

QUESTIONNAIRE THREE (TRANSLATED)

Given below is a list of illnesses and medical systems which could be used in their treatment. Please fill in the table by ticking wherever you think a given form of treatment is ideal for that particular stage of that illness.

	EARLY STRATEGY				LATER STRATEGY			
	Allopa thy	Ayur ved	Homoeo pathy	Home Remed ies	Allop athy	Ayur ved	Homoeo pathy	Home Reme dies
HEADACHE								
COLDS								
CONSTIPA TION								
ACIDITY								
'GAS'								
TYPHOID								
JAUNDICE								
RHEUMATI SM								
DIABETES								
CANCER								
PILES								
BLOOD PRESSURE								

In this questionnaire I would like to ask you about your own views on what you think of various medical systems.

What do you <u>like</u> about Allopathic medicine?

What do you <u>dislike</u> about Allopathic medicine?

What do you <u>like</u> about *Ayurvedic* medicine?

What do you <u>dislike</u> about *Ayurvedic* medicine?

If you were to describe the characteristics of an ideal medical system. According to you, <u>an ideal medical system</u> is,

If you were to describe the characteristics of an ideal doctor According to you, <u>an ideal doctor</u> is,

What does the term <u>illness</u> mean to most people?

What according to you is <u>proper food</u>?

What does the term <u>good health</u> mean to most people?

APPENDIX 9

MAIN STUDY: QUESTIONNAIRE

(TRANSLATED FROM GUJARATI)

In this questionnaire I intend to ask you some questions about yourself and your health. Along with most questions, answers are also provided and your task is to select the ones which are most appropriate or applicable in your case. Take for example, I ask you whether you are a man or woman. Your answer would be

[] Male
[] Female

Approximately, your age would be between:

[] 15-20 years	[] 41-45 years
[] 21-25 years	[] 46-50 years
[] 26-30 years	[] 51-55 years
[] 31-35 years	[] 56-60 years
[] 36-40 years	[] 61 years & more

Have you had any formal schooling?
[] Yes
[] No

If you have had some formal education, it has been up to:
[] Standard 4 or less
[] Standard 8 or less
[] S.S.C./Matric or less
[] H.S.C./Diploma/Vocational training/Inter college or less
[] University Degree or more
[] No formal education

The medium of instruction during the school (not college) was in: [] Gujarati
[] English
[] Gujarati and English mixed

The total income per month of all the family members living in your house approximately:
[] Less than 500 rupees per month
[] Less than 1000 rupees per month
[] Less than 2000 rupees per month
[] Between 2000-4999 rupees per month
[] More than 5000 rupees per month

Please describe in brief what your current occupation is

Do you have a "family doctor" - a G.P. (who gives Allopathic/ western medicines) whom you and your family members consult whenever you have some health-related problems?
[] Yes

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[] No

Have you been consulting this doctor before __*illness*__ started?
[] Yes
[] No
There may be many reasons for choosing this doctor as your family doctor. I would like to know your reasons for selecting this doctor as your family doctor. Please say 'yes' to all the reasons which you think are applicable in your case.
[]   Because this doctor lives near your residence
[]   Because this doctor has a "dispensary" near your residence
[]   Because this doctor is your relative
[]   Because this doctor is a family friend or a caste member
[]   Because this doctor has been a "family doctor" for many years
[]   Because this doctor is considered to be the best in this "locality"
[]   Because this doctor's charges are very reasonable
[]   Because this doctor provides excellent and thorough treatment
[]   Because the doctor is known to have cured very difficult/"stubborn" illnesses/cases
[]   Any other reason: (e.g. personality, gender)

If you do not have a family doctor or a regular G.P., then what do you do when you have some health-related problem? Please give the details.

Excluding __*illness*__ have you frequently visited allopathic doctors other than your family doctor. for diagnosis or treatment (not check-ups)? Who were they? (Tick all the applicable answers)
[] specialists & consultants
[] other doctors like the dentist, optician etc.
[] other G.P. or Allopathic doctor
[] None of the above

Excluding __*illness*__ have you frequently consulted a *vaid/ hakim*/homoeopaths for yourself?
[] Yes
[] No

Can you please say what kind of medicines/treatment does this practitioner prescribe? Is it
[] Ayurvedic medicine
[] Homoeopathic medicine
[] Any other, please state

In addition to the family doctor, and   mentioned above have you occasionally sought treatment or opinions from other doctor/*vaid/ hakim*/homoeopath? (excluding *illness*)
[] Yes
[] No

Please briefly state what kinds of practitioners and/or treatments do you receive.

Can you please state the reasons for going to other doctor/ *vaid*/hakim/homoeopath besides your family doctor for illnesses other than __illness__

Which system of medicine do you usually prefer? (Tick only one)
[]   Ayurvedic/indigenous/*desi*
[]   Allopathic/Western/*videshi*
[]   Homoeopathic
[]   Mixed, please state

In illnesses other than __*illness*__ , have you ever received treatment from a *vaid/hakim*/homoeopath without consulting an allopathic doctor (Tick only one)
[]   Never
[]   Once/rarely
[]   Sometimes
[]   Frequently
[]   Almost always

State briefly when and why?

Have you taken Ayurvedic and Allopathic medicines simultaneously in illnesses other than __*illness*__ ? (Tick only one)
[]   Never
[]   Once/rarely
[]   Sometimes
[]   Frequently
[]   Almost always

State briefly when and why?

Have you ever taken one kind of treatment (say for example Allopathic) and then taken another kind of treatment (e.g Ayurvedic) in the same illness (excluding *illness* ? (Tick only one)
[]   Never
[]   Once/rarely
[]   Sometimes
[]   Frequently
[]   Almost always

State briefly when and why?

I would now like to know how do you decide 'when to see which practitioner. Say YES to all the issues you consider while deciding. You choose

[]   Depending on how serious and complicated the symptoms are

[]   Depending on whether you have got time

[]   Depending on the nature of the illness

[]   Depending on how urgently you require treatment

[]   Depending on the effectiveness of the treatment for specific illnesses

[]   Depending on whether you require immediate relief or long term relief

[]   Depending on the cost of the treatment

[]   Any other, please state

Do you believe that while under going treatment from a doctor, it is important to pay attention to any of the following? (Tick all)

[]   Diet control/Food restrictions, other than those mentioned by the doctor

[]   supplementing doctor's treatment with home remedies

[]   Proper rest and healthy food

[]   none of the above

How do you prefer to cure minor (every day) illnesses? (Tick only one if possible)

[]   With home remedies and diet restrictions

[]   With drugs recommended by someone other than a doctor

[]   With drugs prescribed by a doctor

[]   Other, please state

When you experience health-related problems whose advice do you generally seek? (Tick only one if possible)

[]   From no one at all, you decide own your own

[]   Nobody except a doctor

[]   An immediate family member

[]   A relative

[]   A friend or someone in the neighbourhood

In order to avoid going to a doctor, how often have you asked the pharmacist at the drug store or a compounder to recommend treatment? (Tick only one)

[]   Never

[]   Hardly ever

[]   A few times

[]   A lot of times

[]   Almost always

Have you ever used any of the following? (Tick all the applicable answers)

[]   Left over drugs prescribed to you earlier

[]   Purchased drugs on reading/ hearing advertisements

[]   Made some concoctions at home with your own/some relative's formula

[]   Consulted the medical advisor of some magazine/radio programme

[]   None of the above

(If a woman) whose advice do you seek when you experience problems which concern women's health or body (e.g. menstruation, pregnancy etc.)? (Tick only one)

[]   Have not had any
[]   Ask a relative
[]   Ask a friend or a neighbour
[]   Go to the "family doctor"
[]   Go to a woman doctor
[]   Go to a gynaecologist

I would like to ask you about illnesses you have suffered in past five years. You have to tell me whether you have experienced these illnesses. If so, please state how often have you suffered from them: occasionally or frequently. Take for example, headache. If you have never suffered from headaches in past five years please state 'Never'. If you have suffered from it at times in five years please state 'occasionally'. Similarly if you have suffered from it often please say 'frequently'.

	NEVER	SOMETIMES	FREQUENTLY
RHEUMATISM			
HEADACHE			
COLDS			
ACIDITY			
'GAS'			
CONSTIPATION			
DIABETES			
BLOOD PRESSURE			
CANCER			
JAUNDICE			
PILES			
TYPHOID			

I would like to gather some information on how you normally treat some of the everyday illnesses. For each of the given illnesses you have to tell me what do you generally do when you suffer from it. Take for example headache. While one person may prefer to take Aspro tablet, another may prefer not to take any medicines at all. Similarly for temperature, while one may prefer Allopathy another may like Homoeopathy. Likewise, everyone has their own special manner of treating illnesses. The illnesses mentioned are common illnesses and you have to tell me what do you normally do when you have suffered from it in the past. If you have not suffered from the illness then please state what would you do when faced with it (for headache, colds, constipation, 'gas' and acidity respondents, inquire about how they used to treat before its onset)

	NEV ER	IGN ORE	HOME REMED IES	FOOD RESTRI CTIONS	ALLOPA THIC DOCTOR	*AYURV EDIC VAID*	HOMO EOPAT HIC	SELF- MEDIC ATION
HEADACHE								
COLD								
COUGH/SORE THROAT								
TEMPERATURE								
CONSTIPATION								
STOMACHACHE								
BACKACHE								
'GAS'								
'PITTA'/ACIDITY								

Here, I would like to gather information on how you have treated illnesses in last 5 years. Given below is a list of different types of treatments commonly used by people. For each form of treatment you have to state how frequently have you used it in illnesses other than _____ in past five years. Let me give an illustration. Let us suppose that you go to your Allopathic family doctor every time you have suffered from an illness. When asked about the family doctor, you would say "ALWAYS". Similarly, let us assume that you have not had to undergo any operations/surgery in past five years and presumably you may have visited a surgeon rarely. Therefore, when asked about a surgeon you would answer "ONCE/RARELY". But let us suppose, that you undergone an operation and been to one or more surgeons occasionally. Then your answer will be "SOMETIMES". Likewise, if you have never been to an astrologer to seek advice about treating an illness, you would say "NEVER".

SOURCES OF CARE	NEVER	ONCE/ RARE	SOME TIMES	REGUL ARLY	ALWA YS
AN ALLOPATHIC FAMILY DOCTOR					
AN ALLOPATHIC DR. WHO IS NOT A FAMILY DR					
A SPECIALIST/CONSULTANT e.g. cardiologist					
A SURGEON					
HOSPITAL/NURSING HOME					
AN OUT PATIENT DEPARTMENT OF A HOSPITAL					
AYURVEDIC VAID					
AYURVEDIC HOSPITAL					
HOMOEOPATHIC DOCTOR					
MANTRAVADI, BHUWA					
SPIRITUAL HEALER/*BAWA*					
ASTROLOGER					
*BADHA/*TEMPLE VOWS/PILGRIMAGE					
NATUROPATHY/URINE THERAPY/MAGNET THERAPY					
CHEMIST PRESCRIBED/SELF-PRESCRIBED MEDICINE					
SELF-PRESCRIBED AYURVEDIC PATENT MEDICINES					
EXERCISE/YOGA					

Given below are some statements people make when they talk about treatment Can you please state whether you agree or disagree with each of the statements. You may either agree or disagree with each of the given statements. Depending on how strongly you do so, please say STRONGLY DISAGREE or STRONGLY AGREE. If you agree but not strongly agree say AGREE, or if you disagree but do not strongly disagree, say DISAGREE. If you are undecided, please say NOT SURE.

	SA	A	N/S	D	SD
All diseases are curable if 'suitable' medicine can be found.					
Different kinds of diseases have different causes, therefore one has to go to different practitioners-for certain illnesses to Allopathic, for certain to Ayurvedic and certain to Homoeopathic)					
It is very important that any attempts to treat a person should treat him as a whole and not just the affected parts, since treating the part does not kill until root of the illness.					
Depending on the nature of an illness one should take indigenous or western medicines.					
One should change the form of treatment when it fails to cure the illness i.e.if Allopathy fails to cure should go to Ayurvedic or Homoeopathic and vice versa.					
It is not wise to use different kinds of treatments simultaneously.					

In this questionnaire I would like to ask you questions about the you have been suffering from. In the beginning I will ask you about the initial stages of the illness. So please try to remember the beginning of the illness very carefully.

How long ago would you say this illness started?

Please describe the symptoms or physical changes you noticed when this illness began.

And did you anticipate this illness from this symptoms?

At that time, what did you think was the cause of this? (Tick most applicable only)
[] Change of season
[] Heredity
[] *prakriti*/constitution of the individual
[] *tri-dosha* (*vata, pitta, Kapha*)
[] Germs, viruses, infection etc.
[] Stress, worries
[] Irregularity in daily routine
[] Faulty dietary habits
[] Lack of hygiene
[] Neglect/not looking after oneself
[] Fate/bad time/evil eye/"black magic"
[] City life
[] Old age
[] Lack of exercise
[] Long exposure to extreme hot or cold climates
[] Any other, please state

At that time how serious did you think your condition was? (tick only one)
[] Extremely serious
[] Very serious
[] Moderately serious
[] Slightly serious
[] Not at all serious

At that time how painful was it? (tick only one)
[] Extremely painful
[] Very painful
[] Moderately painful
[] Slightly painful
[] Not at all painful

At that time how concerned/worried were you/your family? (tick only one)
[]   Extremely concerned
[]   Very concerned
[]   Moderately concerned
[]   Slightly concerned
[]   not at all concerned

As a result of these symptoms was your daily activity (tick only one)
[]   Totally interrupted
[]   Quite interrupted
[]   Moderately interrupted
[]   Slightly interrupted
[]   Not at all interrupted

On noticing the symptoms what was the first thing you did? (Tick most applicable)
[]   Ignore
[]   Rest
[]   Diet control
[]   *Ghargatthu dava*/home remedies
[]   Allopathic medicines in the house
[]   Purchased Allopathic medicines from a store (unprescribed) for this
[]   Purchased Ayurvedic medicines from a store (unprescribed) for this
[]   Consulted the family doctor/*vaid*/homoeopath at his dispensary
[]   Asked the doctor to come home
[]   Went to an out-patient department of a hospital
[]   Rushed to the hospital as in-patient
[]   Any other, please state

Please state why do you do this?

Do you generally do this?

On whose advice did you take the above action? (Tick the most appropriate)
[]   On your own initiative
[]   On advise of a family member
[]   On advice of a neighbour
[]   On advice of your doctor
[]   On advice of your chemist

Then what did you do?

How long did you wait before seeing a doctor/*vaid*/*hakim*/ homoeopath/or any specialist? (Tick only one)

[]   Immediately, straight away
[]   Waited for less than 2 days
[]   Waited for less than 2 weeks
[]   Waited for less than 2 months
[]   Waited for over 2 months
[]   Have not seen anyone as yet

Please state briefly why did you do this?

Did you ever take home remedies before going to this doctor?

If he/she has not seen any one, go to page 12.

What aspect of you illness prompted you to go to see this doctor/*vaid*/ *hakim*/homoeopath/specialist? (Tick the most appropriate answer)**illness characteristic**

[]   Severity
[]   Pain
[]   Disruption of the routine
[]   Desire to prevent further deterioration in health or for recuperating
[]   Other, please state

This doctor is (Tick only one)

[]   Your family doctor/someone you go to every time you have a health problem
[]   A practitioner recommended by someone who was cured by him
[]   A practitioner reputed for treating these symptoms
[]   Any other, please state

What kind of medicines does he/she give? (Tick only one)
[]Allopathic
[]Ayurvedic
[]Homoeopathic
[]Other

Why did you choose this practitioner?

When you saw a doctor for the first time for this illness what was your main reason for going to him? (Tick only one)
(treatment expectations)

[]   Just to check in case there was anything serious

[]   For diagnosis/ confirmation of diagnosis made by yourself

[]   For immediate relief of the symptoms only

[]   For total cure of the illness

[]   For second opinion

[]   previous experiences or faith assured of the cure

[]   to experiment with a new form of cure in case it could cure

[]   for diagnosis as well as cure

[]   Other, please state

Please state briefly what did the doctor tell you about your condition, treatment etc.?

Did he diagnose the illness correctly?

At that time did you agree with doctor's diagnosis? (Tick only one)

[]   Yes

[]   No

Did you think the doctor could (Tick only one)

[]   Completely cure the illness

[]   Almost cure the illness

[]   Partially cure the illness

[]   Not cure the illness but at least relieve the symptoms

[]   Not at all cure but provide temporary relief

When you saw the doctor which of the following did he do? (Tick most applicable)

[]   Gave some of his own medicine

[]   Prescribed some medicine to be bought

[]   Gave an injection

[]   Asked you to observe diet control/food restrictions

[]   Asked you to take some vitamins/energy tonics etc.

[]   Asked you to get some tests (e.g.blood, urine, X-ray) done

Did you do everything he had asked you to do?

[]   Yes, everything

[]   Yes, something

[]   No

Please state briefly why/why not did you do this?

How long did you take the treatment for this illness from this doctor for? (Tick only one) **(Duration of treatment)**

[] Less than 4 days
[] Less than one week
[] Less than a fortnight
[] Less than a month
[] A few months but less than six months
[] More than six months but less than a year
[] More than a year
[] Still continuing

How satisfied were you with the treatment? (Tick only one)

[] Very satisfied
[] Quite satisfied
[] Neither satisfied nor dissatisfied
[] Quite dissatisfied
[] Very dissatisfied

What was the main reason for stopping the treatment?(Tick one) **(reasons for stopping treatment)**

[] The symptoms had disappeared as a result of the treatment
[] The illness was cured from its "roots" because of the treatment
[] The illness was under "control" as there is no cure for it
[] There was not enough improvement
[] There was no improvement at all
[] There was severe side effects/reaction
[] the doctor/form of treatment was not capable of treating such illnesses
[] It was becoming too expensive and could not afford it
[] you could not understand what the doctor was saying or you did not like his/her manners
[] Any other reason, please state

While you were going through the above treatment did you also do any of the following to alleviate the symptoms? (Tick all the applicable reasons)

[] Observed diet restrictions other than those mentioned by the doctor
[] Took some home remedies
[] Consulted another western medicine/Allopathic practitioner
[] Consulted vaid/ Ayurvedic practitioner
[] Consulted Homoeopathic practitioner
[] Took advice of someone who had similar illness
[] Prayed to God/ made a badha to get well
[] Consulted a specialist
[] Attended an out-patient department of a hospital
[] Any other, please state
[] None of the above

Please state why and on whose advice did you choose ___*sources*___?
(source of advice)
[]   From no one at all, you decided own your own
[]   doctor's advice
[]   An immediate family member
[]   A friend or someone in the neighbourhood
[]   Chemist, nurse

Can you please provide a summary of how often you may have used different sources of for this particular illness. I will read out commonly sought forms of treatment and you have to tell me whether you have ever used these sources and if so, how many. Supposing, you have never been to a Homoeopath. So when I ask whether you have been to a Homoeopathy, you will say no. Alteratively, let us suppose you have tried three different Homoeopaths than your answer would have been three.

SOURCES OF CARE	NEVER	1	2	3-5	5+
AN ALLOPATHIC FAMILY DOCTOR					
AN ALLOPATHIC DR. WHO IS NOT A FAMILY DR					
A SPECIALIST/CONSULTANT e.g. cardiologist					
A SURGEON					
HOSPITAL/NURSING HOME					
AN OUT PATIENT DEPARTMENT OF A HOSPITAL					
AYURVEDIC VAID					
AYURVEDIC HOSPITAL					
HOMOEOPATHIC DOCTOR					
MANTRAVADI, BHUWA					
SPIRITUAL HEALER/*BAWA*					
ASTROLOGER					
*BADHA/*TEMPLE VOWS/PILGRIMAGE					
NATUROPATHY/URINE THERAPY/MAGNET THERAPY					
CHEMIST PRESCRIBED/SELF-PRESCRIBED MEDICINE					
SELF-PRESCRIBED AYURVEDIC PATENT MEDICINES					
EXERCISE/YOGA					

After you discontinued this treatment what did you do? (tick all applicable)
[]   No treatment except the home/remedies and food restrictions
[]   Consulted another *Ayurvedic vaid*
[]   Consulted another Allopathic doctor
[]   Consulted another Homoeopathic doctor
[]   Any other, please specify

SOURCES OF CARE	STRATEGY			
	2	3	4	5
AN ALLOPATHIC FAMILY DOCTOR				
AN ALLOPATHIC DR. WHO IS NOT A FAMILY DR				
A SPECIALIST/CONSULTANT e.g. cardiologist				
A SURGEON				
HOSPITAL/NURSING HOME				
OUT PATIENT DEPARTMENT OF A HOSPITAL				
AYURVEDIC VAID				
AYURVEDIC HOSPITAL				
HOMOEOPATHIC DOCTOR				
MANTRAVADI, BHUWA				
SPIRITUAL HEALER/*BAWA*				
ASTROLOGER				
BADHA/TEMPLE VOWS/PILGRIMAGE				
NATUROPATHY/URINE THERAPY/MAGNET THERAPY				
CHEMIST/SELF-PRESCRIBED MEDICINE				
SELF-PRESCRIBED AYURVEDIC MEDICINES				
EXERCISE/YOGA				
DURATION OF TREATMENT				
SOURCE OF ADVICE				
ILLNESS CHARACTERISTICS				
TREATMENT EXPECTATIONS				
REASONS FOR STOPPING TREATMENT STRATEGY				

If you had to advice someone who was beginning to show symptoms of ___*illness*___, what would you tell him?

(If a multiple user elicit comments and experiences of using different forms of cure.

The following section questions have been asked about certain characteristics of the illness you have been suffering from. For each question five possible answers are given of which you have to select only one option which you agree with the most.

Who is likely to get this disease?
[] Almost everybody gets it
[] A lot of people get it
[] Some people get it
[] Hardly anybody gets it
[] Almost nobody gets it

Among which age-group is this disease especially common?
[] Young children especially get it
[] Adolescents especially get it
[] Young adults especially get it
[] Middle age people especially get it
[] Old people especially get it

How infectious is this disease?
[] Extremely infectious disease
[] Very infectious disease
[] Moderately infectious disease
[] Slightly infectious disease
[] Not at all infectious disease

How serious is this disease?
[] Not at all serious disease
[] Slightly serious disease
[] Moderately serious disease
[] Very serious disease
[] Extremely serious disease

How painful is this disease?
[] Not at all painful disease
[] Hardly painful disease
[] Slightly painful disease
[] Moderately painful disease
[] Very painful disease

How fatal is this disease?
[] Almost always causes the death of the person
[] Very often causes the death of the person
[] Sometimes causes the death of the persons
[] Rarely causes the death of the person
[] Almost never causes the death of the person

How sudden is the onset of this disease?
☐   Very sudden onset Moderately sudden onset
☐   Neither sudden nor gradual onset
☐   Moderately gradual onset
☐   Very gradual onset

How easy is it to prevent this disease?
☐   Very easy to prevent
☐   Quite easy to prevent
☐   Neither difficult nor easy to prevent
☐   Quite difficult to prevent
☐   Very difficult to prevent

How many people you know have suffered from this disease?
☐   Most people I know have suffered from it
☐   Some people I know have suffered from it
☐   A few people I know have suffered from it
☐   Hardly anybody I know suffered from it
☐   Nobody I know suffered from it

To what extent does this disease disrupt your daily routine?
☐   Disrupts the routine totally
☐   Disrupts the routine to a great extent
☐   Disrupts the routine to some extent
☐   Slightly disrupts the routine
☐   Never disrupts the routine

How easy is it to cure this disease?
☐   Very easy to cure
☐   Quite easy to cure
☐   Neither difficult nor easy to cure
☐   Quite difficult to cure
☐   Very difficult to cure

How much worry this disease cause?
☐   A lot of worry
☐   Some worry
☐   Slight worry
☐   Hardly any worry
☐   No worry at all

How expensive is the treatment for this disease?
☐   Very cheap treatment
☐   Quite cheap
☐   Neither expensive nor cheap
☐   Quite expensive
☐   Very expensive

How lengthy is the treatment for this disease?

[]   Very length

[]   Quite lengthy

[]   Neither lengthy nor short

[]   Quite short

[]   Very short

To what extent can you recover from this disease?

[]   You can recover totally

[]   You recover but some of its 'influence' remains

[]   You recover from it but you are never sure

[]   You recover only partly

[]   You can never recover ever

This disease which 'prakriti' of people?

[]   'pitta' prakriti people?

[]   'vata' prakriti people?

[]   'kapha' prakriti people?

[]   There is no relationship between prakriti and disease

In your opinion which medical system is most suitable in this illness?

[]   Ayurvedic system

[]   Allopathic system

[]   Homoeopathic system

[]   Other

Would you say that the course of treatment was characteristic of you, on the whole?

Can you please give your views on different medical systems you used during your illness?

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