

Treatment Choice and Switching from One Modality to Another: Using Pathway Models as a Conceptual Framework

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Abstract—There is a broad range of technique to study the health seeking behavior; sociological approach is one of them. In developing countries, while studying health care area focus have been made on different health care practices and some of the relevant issue from perception of illness to health seeking behavior. In this study pathway model is used to predict health care choices. This study explains the people's attitude and perceptions of health, their own understanding of the cause of illness, their belief system and their influence on health care decisions. A representative and random sample of 500 household was taken from the Kathmandu Metropolitan City, using multistage sampling, with the probability of selection of study area proportional to their size. Data were collected by self-administered semi-structured questionnaire. Data analysis is done by using statistical software SPSS 13. Descriptive measures and tables are used to interpret the data. Result suggests that families seek different types of providers for contrasting reasons and at varying stages of illness. Beliefs on different type of metaphysical concept like spirits, fate, karma etc affect their decisions regarding choice of health care. Near about 30% of the sample people of urban Kathmandu still believe in bhutpret and spirits. Fatalistic beliefs about health are common in the study area. Among the sample people 11.2% still believe in power of unseen spirits as a causal agent. People sought treatment or cure more promptly for a child than an adult. A significantly greater proportion of modern health care users (37.2%) turned to the faith healers when their first choice failed. This study is important both from the theoretical and practical point of view while understanding people's knowledge and concerns on the concept of health and ill-health and their health seeking behaviour in a multi-cultural setting.

Index Terms—Treatment choice, health care practices, health seeking behavior, belief system, perceptions of health, cause of illness.

I. INTRODUCTION

There is a broad range of technique to study the health seeking behavior; sociological approach is one of them. Apart from the knowledge and awareness there are several other factors like belief about health and illness which may affect people's decisions regarding their choice of health care practices. In developing countries, while studying health care area focus have been made on different health care practices and some of the relevant issue from perception of illness to health seeking behavior. Each culture has its system of knowledge in achieving and maintaining an optimum state of health which has equipped it to develop various health care practices in different parts of the world. Most of these health care practices are still practiced despite the dominance of modern health care

system. This is probably because of the similarity in the explanation of causal agents of ill health and the prevailing worldviews of the health seekers. To understand this intimate and intricate relationship between cultural knowledge and its practitioners it is important to see local health care practices as a part of the total cultural whole and its pattern. The life-supporting and life-enriching role of these diverse health care and practices have been accepted and acknowledged. In the multicultural settings, like Nepal, different people find confidence in different health care practices. Depending on their religio-philosophical knowledge people have faith in healers, benevolent and malevolent supernatural beings. Cultural belief system is found to exert strong explanatory frame to understand and believe the healers capacity to ward off the source of ill health whether natural or supernatural. The cultural parameters within which people were socialized and guided can directly influence their perception of the illness and seeking appropriate method of health care. Further, lay people's explanations for the illness and their causes can show the complicated relationship between people and their socio-cultural and natural world that shapes people's lives. In this study, pathway model, which depict health seeking as a dynamic process, is used to predict health care choices. Starting with concept of illness, it centers on the path that people follow until they use different health services. In the course of utilization, people can move from one sector to another.

Figure 1 shows the relationships of the main components of the framework. "Concept of illness" is shown to affect the service utilization pattern. Then it also stresses the importance of "significant others" in the health services utilization by the individual. In this study 'Significant others' are considered as belief system which is regarded as a key for understanding decision making in curing processes. The main objective of this study is to explain the people's attitude and perceptions of health, their own understanding of the cause of illness, their belief system and their influence on health care decisions.

II. MATERIALS AND METHODS

The data for this cross sectional descriptive study is collected from the Kathmandu Metropolitan City (KMNP). A representative and random sample of 500 household was taken, using multistage sampling, with the probability of selection of study area proportional to their size. Considering the multi-stage sampling, in this study KMNP is divided into a number of sectors as cluster in the first-stage within each such sector a number of wards are selected in the second-stage, and from each selected wards a number of households are selected at the third-stage for enquiry. A sample of these is selected at a random with

probability proportionate to size. Both quantitative and qualitative data were collected from the fieldwork with the help of semi-structured questionnaire and focus group discussion. All the collected quantitative data were entered into SPSS database and analyzed with SPSS13.0. Results

were obtained by the frequency distribution and cross tabulation of the variables. Chi-square tests are performed to determine the significant associations between the use of different methods and these variables.

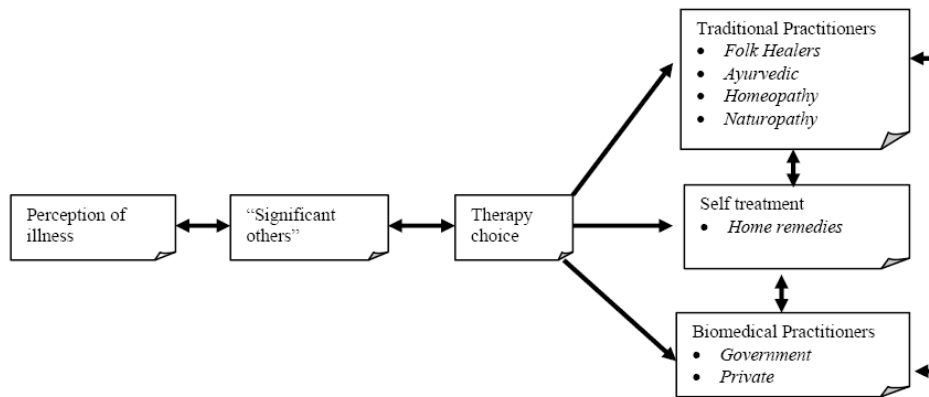


Fig. 1. Conceptual framework.

III. RESULT AND DISCUSSION

Five hundred respondents are interviewed using the questionnaire during the study period of which 251 (50.2%) are male and 249 (49.8%) are female. Four hundred sixty three of the 500 household surveyed (92.6%) are male headed. The mean age of respondents is 33.82 years with range varying from 20 to 70 years. Majority of the households (34.4 %) have 4 members. The average household size is 4.29.

Overall, in this study about 22% of sample people from urban Kathmandu give preference to some form of traditional health care provider like shamans, ayurvedic, naturopathy as well as homeopathic medicine and also follow home remedies.

The present study found that the majority of people i.e., 40.8 % of the respondents use to prefer modern health care practices that could be due to our study area being more urban. Similarly, 37.2% of sample population practice traditional health care in conjunction with modern health care.

A. Belief System, View about Illness Causation and Maintenance of Health

Beliefs on different type of metaphysical concept like spirits, fate, karma etc may affect the people's decisions regarding choice of health care. Despite living in the urban Kathmandu 29.2 % of the sample people still held belief in ghosts (*bhutpret*) and spirits which is similar to the results obtained from the study by Nepali [1] and Spiro [2]. Most of the respondents (25%) considered these are culturally evil things, which can cause disease. Similarly worshipping of various kinds of gods is traditional custom of the respondents. They think worshipping of god and goddesses was traditional custom and to worship means to give pleasure to the god and to expand religious merits. Fatalistic beliefs about health were common in 35.8 % respondents. Such fatalism has been described in many cultures [3]. People who belief in god and fate they are equally interested in traditional as well as modern health care practices. People who have belief in *bhutpret*, *bokshi*, evil eye are more likely

to visit traditional health care practitioners than the modern. The relationship between belief system and choice of health care practices is found to be highly significant ($p < 0.0001$). (Table I)

All human culture has belief system that provides explanations for, and responses to birth, death, and illness. There is a wide variety of influences on people's belief about illness and cure. Such belief may affect people's decisions regarding their choice of health care practices. It is found that illness is not due to single cause but there are several causes, which can be ascribed to people's cultural context. Perceptions regarding the causes and curing for illness are varied and often conflicting. Illness has often been attributed to witchcraft, demons, adverse astral influence, or the will of the gods. It is generally agreed that environmental pollution, wrong (hot and cold) food as well as bacteria and virus have a central role to play in their overall health. Other factors like lack of personal hygiene, carelessness, heredity, polluted drinking water, mental anxiety and age factor are also believed to play a role in the causation process that leads to ill health. In the consideration of the role of social and other factors in influencing health levels, it may reasonably be expected that individual's health seeking behaviour might be determined by their perception of the causes of illness. People in Kathmandu Metropolitan City believe both in supernatural and natural causation of disease. Usually, the illness occurred by natural causes are treated by modern health care practitioners. However, even for illness arises by natural causes the people use to consult traditional healers as to know why such disease happened to that particular person. Popularly it is believed that spirits can also cause natural ailments. In this case we can say that the classification is very vague. There is a wide variety of influences on people's beliefs about ill health and its cure, including culture and religion. There are certain aspects of the Hindu religion that commonly affect the decision regarding the choice of health care practices. Hinduism is a social system as well as a religion; hence customs and practices are closely interrelated. It has been said that "Karma" is a law of behavior and consequences in which events of past life have some bearing on the situation in which one is born and lives in this life.

Despite complete understanding of biological causes of illness, it is often believed that the illness is caused by "Karma". So, Religious beliefs may also exert positive influences on health by acting as a source of inspiration or negative influences when they are linked with guilt and punishment.

In spite of increasing access to modern education and communication system, an infinitesimal number of people (11.2%) still believe in power of unseen spirits like *bhutpret* and *bokshi* as a causal agent. Various study [4] [5] [6] also reports that some of the people in the community still believe that illnesses are caused by evil spirits, which cannot be cured in the hospitals. The belief that most of the diseases occur due to supernatural powers led to the concept of seeking relief through *zadhu* (magic), keeping the modern medical practitioner as a last resort [7]. Moreover, it is also found that some responders (6.4%) attributed their illness to fate and the will of God, as result of bad karma, evil eye or as punishment for sins of a past life or just bad luck. Dalal [8] also found that patients more frequently attribute their illness to God's will, fate and karma, than to germs, pollutants and lifestyle.

The respondents do have some concept about the factors which are essential to be a healthy person. However, an interesting observation is that despite modern health care practices making inroads into their life, 23.1% respondents still have faith in making formal and serious promise to gods and goddesses in order to get relief from the diseases. Often religious rituals are conducted to rid the patient of the evil influence and give the patient and the family hope and confidence. However, sacrifices of animals or grains are believed to be effecting in appeasing God. A mix of traditional and modern health care practice in the study area shows that these are in relevance with the socio cultural setting of the community. Most of our sample, irrespective of ethnicity, used some form of religious treatment. For some, this is a personal prayer or recitation from religious texts in private, rather than seeking help from religious healers. Others undertook pilgrimages to places of worship in order to seek forgiveness for their sins and alleviation of their illness. Most of the people who use to consult with *dhami*, *jhankri*, *jharpuk* and *mata* are instructed to wear some kind of amulet (*buti*) containing verses (*mantra*), usually around the neck or the arm. Others are required to drink blessed water or recite from holy texts. (Table I)

B. Receiving Cure Promptly

It is found that people sought treatment or cure more promptly for a child than an adult who supports the study results by Niraula [9]. This may be because they are more susceptible to any disease than those of other age groups. However, the illness profiles revealed many cases where there is no adequate reason why no remedy had been obtained. Costs are not a major factor when seeking the cure of children but with adults are significant factors which does not support the study result given by Thakur [10]. Both mother and father are greatly concerned by a child's illness, and care is generally given to children before payment is solicited. There is no evidence of discrimination, even when it comes to the care of children. But gender differences are marked in adult treatment; female are promptly advised to seek cure than are a male which is found slightly

contradictory to the result of the study by Niraula [9] and Young et al.[11].

Both genders use traditional as well as modern health care providers in the same proportions, indicating that there is no gender-based discrimination in using particular health care method. On the other hand, treatment is rarely sought promptly for adults because of lack of funds and the unwillingness of either spouse to bear the cost of treating the other. Thus, adult illnesses often reach a critical stage before treatment is sought. Financial constraint is identified by the majority of the respondents for the delay of treatment which is also mentioned as a main cause in the study by Thakur [10].

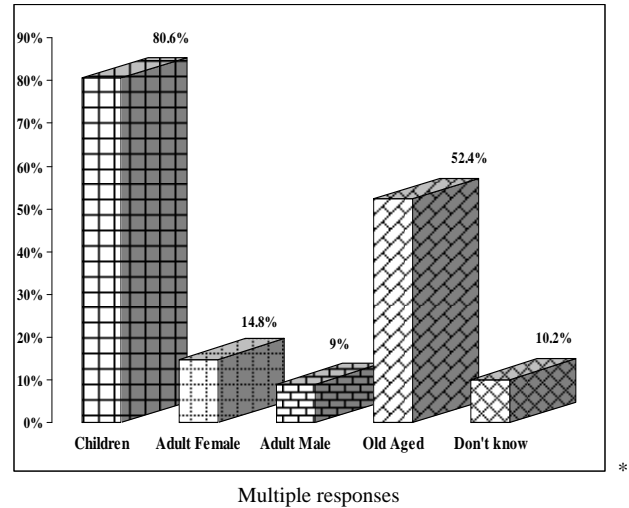


Fig. 2. Receiving cure promptly.

C. Alternative Choice of Treatment

Despite an apparently high level of care, if a first treatment fails, often no further treatments are attempted i.e. 36.2% people do not go anywhere, or where as 63.8% people sought further treatment. When continuing treatment is needed people also change the treatment from one type to another or sometimes even from one healer to another. If the cause of the problem is not identified by the present provider (healer), another provider is used. If the traditional healer is not effective, then doctors are used. This scenario also occurs if the western form of medication is not successful. However the association between different choice is found to be statistically significant ($p < 0.0001$). Most of the people (29.5%) choose other doctors as well as hospitals which they feel better. Some of them (21.3%) change the treatment pattern and some (17.2%) sought advice from their heads, relatives, friends and neighbours. Some of them (4.1%) who are economically strong they even go to foreign for further treatment. A significantly greater proportion of modern health care users (37.2%) turned to the faith healers, like *dhami*, *jhankri*, *jharpuk*, *gyotisi*, when their first choice failed. Similarly 61.8% modern health care users choose ayurvedic, homeopathic and naturopathy treatment when first line treatment did not go with them. People often turned to traditional health care practices in desperation and as a result of family pressure, although some had doubts about its effectiveness. Most of the traditional health care users (25.5%) sought advice from household head, friends and relatives. (Table II)

TABLE I: BELIEF SYSTEM, VIEW ABOUT ILLNESS CAUSATION, MAINTENANCE OF HEALTH AND CHOICE OF HEALTH CARE PRACTICES

	Preferred health care Practices						Total N = 500*		p value
	Traditional		Modern		Both		N	%	
	N	%	N	%	N	%			
Belief System									
<i>Bhutpret</i>	47	32.2	29	19.9	70	47.9	146	29.2	
<i>Bokshi / Khyak</i>	42	34.4	23	18.9	57	46.7	122	24.4	
Sins / Evil eye	56	44.8	13	10.4	56	44.8	125	25.0	<0.0001†
God / Fate / <i>Karma</i>	56	31.3	55	30.7	68	38.0	179	35.8	
Cause of illness									
Environmental pollution	74	21.1	150	42.7	127	36.2	351	70.2	.395
Wrong food (hot/cold)	38	18.4	85	41.3	83	40.3	206	41.2	.231
Lack of personal hygiene	47	23.5	104	52.0	49	24.5	200	40.0	<.0001†
Virus/ Bacteria	31	15.7	94	47.7	72	36.5	197	39.4	.008
Carelessness	46	31.3	83	56.5	18	12.2	147	29.4	<.0001†
Bad Karma/ Offended god / Sins	17	53.1	3	9.4	12	37.5	32	6.4	<.0001†
Heredity	19	17.8	67	62.6	21	19.6	107	21.4	<.0001†
Polluted drinking water	26	25.5	57	55.9	19	18.6	102	20.4	<.0001†
Physical weakness	27	27.8	38	39.2	32	33.0	97	19.4	.285
Anxiety	21	23.3	30	33.3	39	43.3	90	18.0	.259
Age factor	14	17.7	36	45.6	29	36.7	79	15.8	.519
<i>Bhutpret/ Bokshi</i>	24	42.9	3	5.4	29	51.8	56	11.2	<.0001†
Economic reason	8	19.5	21	51.2	12	29.3	41	8.2	.355
Don't know	11	30.6	9	25.0	16	44.4	36	7.2	.122
Factors essential for the health of the people									
Clean environment	79	20.6	160	41.7	145	37.8	384	76.8	.372
Personal Hygiene	37	16.5	101	45.1	86	38.4	224	44.8	.023
Balanced diet	43	21.4	87	43.3	71	35.3	201	40.2	.643
Drinking clean and safe water	24	12.6	106	55.8	60	31.6	190	38.0	<.0001†
Far from <i>bhutpret</i> and <i>bokshi</i> , sacrifice, wearing <i>jantar</i> , <i>kalo dhago</i> , <i>khutta ko tika</i>	106	57.9	0	0.0	77	42.1	183	36.6	<.0001†
Awareness	34	20.2	100	59.5	34	20.2	168	33.6	<.0001†
Regular Exercise	26	16.6	78	49.7	53	33.7	157	31.4	.016
Regular Health Check-up	20	15.7	64	50.4	43	33.9	127	25.4	.025
Appease god, worship (puja), pray	52	45.2	22	19.1	41	35.7	115	23.1	<.0001†
Prevent bad habit	20	17.5	60	52.6	34	29.8	114	22.8	.014
Strength economic condition	27	27.6	0	0.0	71	72.4	98	19.6	<.0001†

* Multiple responses

† statistically significant

TABLE II: IF FAILED FROM PREVIOUS TREATMENT, ALTERNATIVE CHOICE OF THE RESPONDENTS

Alternative choice	N = 500*	First choice of health care						p value†
		Traditional		Modern		Both		
		N	%	N	%	N	%	
No further treatment	181 (36.2)	64	35.4	50	27.6	67	37.0	< 0.0001
Sought further treatment	319 (63.8)	110	34.5	204	63.9	186	58.3	
Dhami/Jhankri/Jharphuk/Jyotishi/Lama/ Gubaju	78 (24.5)	9	11.5	29	37.2	40	51.3	
Advice from household head /friends/ neighbor/ relatives	55 (17.2)	14	25.5	13	23.6	28	50.9	
Ayurvedic/Homeopathy/Jadibuti/ Naturopathy/Yoga	68 (21.3)	6	8.8	42	61.8	20	29.4	
Better doctor / Better hospital	94 (29.5)	17	18.1	49	52.1	28	29.8	
Foreign	13 (4.1)	0	0.0	13	100	0	0.0	
Don't know	11 (3.4)	0	0.0	8	72.7	3	27.3	
Total	500	110	22.0	204	40.8	186	37.2	

* The number in bracket indicates percentage

† statistically significant

IV. CONCLUSION

Various dimensions and complexities in the socio-cultural belief systems determine the choice of providers for health care as some may simultaneously attend the western practitioners and the traditional healers. This study reports on health beliefs and their influence on decisions and behaviour regarding the choice of health care practices among the people of Kathmandu Metropolitan City. Many times, when cure for illness by selected therapy is not effective, people move towards other system. This mixture of allopathic and local traditional health care practices is often the result of dissatisfaction with one more of the treatments being given to the ill person. This study relied on self-reported answers, and these may be subject to recall and reporting bias. Unidentified predictors or confounders are still possible regarding attitude and perceptions of people about illness and health seeking behavior. Further research is needed to improve upon these limitations.

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