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RESEARCH ARTICLE

Students' Beliefs toward Illness Causation

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Abstract

Background and objectives: Students' health beliefs can have a profound impact on health. They can impede preventive efforts, delay or complicate medical care and result in the use of folk remedies that can be beneficial or toxic. The aim of this study was to assess the college students' beliefs toward illness causation**.**

Methods: Descriptive study was carried using random sample of 175 college students during the period 1st of May to 1st of September 2013. The prepared scale by the researchers was administered to the study participants to test their beliefs toward illness causation.

Results: This study found that about one third of the participants believed that *jinn* induced, evil eyes, and black magic are illness causes. There were significant differences between the students' illness causation beliefs in respect to their school departments in two questions which were stress and undesirable social habits.

Conclusions: Assessment of cultural beliefs and knowledge in this study helped for finding positive and negative beliefs toward illness. Illness causation involves the biological, environmental, social, and cultural aspects. Relating illness causes to cultural aspects such as *jinn* induce, evil eyes, and black magic by the participants of this study brought an important issue regarding reforming health education system aiming to prevent diseases and enhance health among the students who are the crucial age group in the community. It has been recommended that the subject on "Understanding Health and Illness" should be added in the educational program of college students excluding medical students.

Introduction

Among the three definitions of illness, two of them are of the way the word was used up to the 18th century to mean either "wickedness, depravity, immorality", or "unpleasantness, disagreeableness, hurtfulness". This reflects that the word "ill" is a contracted form of "evil". The third meaning, dating from the 17th century, is the modern one: "Ill health; the state of being ill". The dictionary defined "ill" in this third sense as "a disease, a sickness". Sickness had been defined as "The condition of being sick or ill; illness, ill health"; and "sick" means "affected by illness, unwell, ailing … not in a healthy state", and, "having an inclination to vomit". "Dis-ease" from old French and ultimately Latin is the absence of ease or elbow room, meaning impediment to free movement. It is more commonly used without a hyphen to refer to a "disorder of structure or function in an animal or plant of such a degree as to produce or threaten to produce detectable illness or disorder" or condition with specific signs or symptoms or affecting a specific location (Trumble & Stevensen, 2002).

Different kinds of maladies such as disease, illness, and sickness are considered synonyms in English, but there are important distinctions among them in medical anthropology. Biomedicine views disease as a biological problem involving abnormality in the body's structure, chemistry, or functions. Illness refers to a patient's experience of something wrong, a sense of disruption in well-being that may be the result of disease or caused by cultural beliefs. The distinction of sickness focuses on consequences of social responses to a person, for instance, his or her personal experiences when shunned for having AIDS or being obese. The sick role focuses on social expectations for the behaviors of a person diagnosed as suffering from a malady, for instance, being excused from work or school. Concepts of disease, illness, and sickness reflect differences among medical, personal, and social realities. These differences illustrate the importance of cross-cultural perspectives in understanding health concerns. Biomedicine tends to view health problems as primarily based in biology. The perspectives of medical anthropology illustrate the health effects of personal, cultural, and social influences. These influences place limitations on the biological assumptions associated with disease, as illustrated in case studies of leprosy, cardiac arrest, epilepsy, depression, and mental retardation that reveal the fundamental roles of culture in their causes and consequences (Winkelman, 2009).

Differentiation between disease and illness had been recorded by Jennifer Bud (2010) who stated that "A physician can diagnose a patient as being diabetic (disease.). But if that diabetic patient does not monitor his glucose levels or make necessary changes in his diet, the nurse can diagnose him with risk for unstable glucose levels (illness.) Thus, nursing is concerned with illness while medicine (or a physician) is concerned with disease" (LeMone & Burke, 2011).

The term disease refers to changes in the structure or function of body systems. This term is derived from the medical model which focuses on the treatment and elimination of symptoms. But the term illness refers to individuals' perception of their symptoms and how they and their families respond to these symptoms (Lubkin & Larsen, 2002).

Every disease has a distinct set of features that include a cause, associated clinical symptoms and a characteristic progression, with associated morphological and functional changes in the patient. The presence of an abnormality on its own, however, does not necessarily indicate disease since the affected individual must also suffer from ill health. Health can be defined as an absence of signs and symptoms associated with any disease. This definition has limitations in that there are circumstances where individuals believe they are ill even though detectable indications of disease are not present. Conversely, there are individuals who believe they are healthy but on detailed examination are found to suffer from a serious disease. For this reason, the World Health Organization (WHO) devised the more appropriate definition of health as a state of physical, mental and social well-being and not merely the absence of disease. Currently there is considerable interest, particularly in developed countries, in promoting health by improving lifestyle and reducing mental and social factors associated with ill health (Ahmed et al., 2007)

Cultural aspects give an important meaning in dealing with the sickness which varies in different cultural context. Illness is related to cultural knowledge in every society.

Enculturation and socialization are considered as main factors for perceiving somatic changes at the first stage of illness and self explanations. Ethnomedical studies give a good attention to the differences between the concepts of disease and illness. According to the western biomedical categories, disease is defined as clinical realities and medical measurements, but illness is a social and cultural disorder of well-being. Illness causation is concerned with the social or spiritual context. Healing process has a great effect on the neurophysiology and body immune system. Illness concept has been interpreted by Good in his study on Iranians in 1977 through using the term semantic illness network of words, situations, symptoms and feelings which were expressed by the illness sufferer (Young, 1982).

Patients and providers need knowledge of the relationships of culture to health because culture is the foundation of everyone's health concerns and practices. Improving health care requires attention to cultural influences on health concerns, conditions, beliefs, and practices. People's health occurs within cultural systems that are concerned with broader issues of well-being than addressed by physicians' concerns with disease and injury; we are also concerned with psychological, social, emotional, mental, and spiritual well-being. As biomedicine turns from a disease-focused approach to concepts with health and well-being, cultural perspectives and cultural competency emerge as central frameworks for improving care. Medical anthropology is the primary discipline addressing the interfaces of medicine, culture, and health behavior and incorporating cultural perspectives into clinical settings and public health programs. Health professionals need knowledge of culture and cross-cultural relationship skills because health services are more effective when responsive to cultural needs. The concept of culture is fundamental to understanding health and medicine because personal health behaviors and professional practices of medicine are deeply influenced by culture (Winkelman, 2009).

This study aimed to assess the college students' beliefs toward illness causations and comparing these beliefs between certain groups of the college students. The researchers expected significant differences between the illness causation beliefs of college students relative to their faculty groups and their gender. The reason behind choosing

this study was to enrich the public health studies in the region especially in such academic medium. Revealing the positive and negative beliefs toward illness causation among college students will help for generalization of the beliefs among community as whole. These beliefs are considered as crucial materials for physicians' and nurses' curative interaction with the patients which assist them for better diagnosis and treatment of diseases. The results of this study will influence the health education plan for college students regarding illness prevention.

SUBJECTS AND METHODS

Subjects

The research has been approved ethically and scientifically by the scientific research committee of Sociology Department in Koya University in the meeting session number 3 on 29th of April 2013. This study has been conducted during the period 1st of May to 1st of September 2013. After obtaining consent from all participants, illness causation scale had been administered to them in order to test their beliefs toward illness causation. Total participants were 175 final year college students who have completed the questionnaire answers. Random sampling method was used in this descriptive study. The questionnaire was introduced to 200 college students of Koya University located in Erbil governorate the capital of Kurdistan Region of Iraq. Twenty five uncompleted forms by the participants were excluded from the data analysis for the reason that they have answered less than 16 items (80%) of the items. Only 175 college students (108 students from the faculty of human and social sciences and 67 others from the faculty of science and health) who completed ≥16 items were included in the study. Participation in this study was voluntary. The male participants have formed 52.6% of the study sample and the females have formed 47.4%.

Research instrument

An illness causation scale was prepared by the researchers consisting of 20 items. The illness causation questions were divided into three domains including biological, social, and cultural domains. Content validity was determined through panel of scientific experts. Eighty five percent of them agreed that the questionnaire was relevant. A group of 10 college students were tested and retested for reliability of the questionnaire within two weeks interval. Analysis of data (using *t*-test) revealed that there were no significant differences between both results, *t* value = 0.62. The instrument measures the college students' beliefs about illness causations. There were 20 questions that were answered on 3-point Likert-type scale.

Statistical analysis

Descriptive and inferential statistics were used through the Statistical Package for Social Sciences (SPSS, Version 11.5). Chi-square, *t* test, and ANOVA test were used for data analysis. The P value of ≤ 0.05 was considered as statistically significant.

RESULTS

One hundred and seventy five college students were studied, including 92(52.6%) males and 83(47.4%) females. Of the total participants 14(8%) were with very good economical status, 91(52%) of them were with good economical status, 67(38.3%) with medium and only 3(1.7%) of them were with bad economical status. About two thirds 70(40%) of them were city habitants. More than half 99(56.6%) of them were town habitants, and only 6(3.4%) of them were village habitants. More than half 108(61.7%) of the participants were from the Faculty of Humanities and Social Sciences and 67(38.3%) of them were from the Faculty of Science and Health. Within these two faculties, the students of Psychology department have formed the higher number and percentage 36(20.6%), while the numbers and percentages of the study participants were 20(11.4%), 17(9.7%), 25(14.3%), 17(9.7%), 14(8%), 19(10.9%), and 27(15.4%) from the departments of Sociology, Biology, Administration and Economy, Physics, Mathematics, Chemistry, and English Language respectively (Table 1). Table 2 shows the students' responses to the illness causation study questions. The highest (78.3%) responses of the participants was relating illness to environmental causes. While, only 9.7% of them believed that social value struggles is one of the illness causes. About one third (34.3%) of the study participants reported that (yes) *jinn* induce is an illness cause and 39.4% of them reported that *jinn* induce sometimes lead to illness. About one third (32%) of the study participants reported that (yes) evil eyes is an illness cause and 41.7% of them reported that evil eyes will sometimes lead to illness. Less than one third (28.6%) of the study participants reported that (yes) black magic is an illness cause and 37.7% of them reported that black magic sometimes lead to illness. It has been found that there were no significant differences between the responses of the male and female college students regarding the biological (t = 0.711), and cultural (t = 0.493) domains of illness causation. There were no significant differences between the responses of the students of the Faculty of Humanity and Social Sciences and the Faculty of Sciences and Health regarding the social (t = 0.337) domain. Effect of gender upon the responses of the study sample was significant within 7 illness causations (Table

3). There were significant differences between the beliefs of the students regarding their economical status only in 4 illness causations which were malnutrition (p = 20.885), sedentary life (p = 24.91), black magic (p = 18.952), and social value struggles (p = 13.473). Students with good and medium economical status had positive beliefs toward the 4 mentioned illness causations higher than that of students with very good and bad economical status (Table 4). Habitation of the students had no significant effect on the students' beliefs about illness causation with exception to the question about social value struggles (p = 12.786) (Table 5). There were no significant differences between the students' illness causation beliefs in respect to their school departments except of two questions which included the question about stress (p = 24.252) and the question about undesirable social habits (p = 27.655) (Tables 6 - 7).

APPENDICES:

Table 1: Demographic characteristics of the sample

Variables	**Frequency**	**%**
	n=175	
Gender:		
Male	92	52.6
Female	83	47.4
Economical status:		
Very good	14	8
Good	91	52
Medium	67	38.3
Bad	3	1.7
Habitation:		
City	70	40
Town	99	56.6
Village	6	3.4
Faculty:		
Humanities and Social Sciences	108	61.7
Science and Health	67	38.3
Department:		
Sociology	20	11.4
Psychology	36	20.6
Biology	17	9.7
Administration and Economy	25	14.3
Physics	17	9.7
Mathematics	14	8
Chemistry	19	10.9
English Language	27	15.4

Table 2: Participants' responses to the study questions

Illness causation	**Yes**		**Sometimes**		**No**	
	No.	**%**	**No.**	**%**	**No.**	**%**

Bacterial infection	108	61.7	66	37.7	1	0.6
Environmental hazards	137	78.3	37	21.1	1	0.6
Genetic factors	67	38.3	103	58.9	5	2.9
Malnutrition	101	57.7	68	38.9	6	3.4
Sedentary life	78	44.6	87	49.7	10	5.7
Stress	56	32	92	52.6	27	15.4
Death of one of the family members	45	25.7	105	60	25	14.3
Social pressure	40	22.9	119	68	16	9.1
Torture	87	49.7	73	41.7	15	8.6
Sexual harassment	110	62.9	54	30.9	10	5.7
Anxiety and depression	108	61.7	60	34.3	7	4
Aggressive behavior from one of family members	58	33.1	105	60	12	6.9
Parental problems	57	32.6	94	53.7	24	13.7
Mentality differences between family members	26	14.9	81	46.3	68	38.9
Gin induce	60	34.3	69	39.4	46	26.3
Evil eyes	56	32	73	41.7	46	26.3
Black magic	50	28.6	66	37.7	59	33.7
Undesirable social habits	27	15.4	107	61.1	41	23.4
Social value struggles	17	9.7	90	51.4	68	38.9
Poverty	56	32	72	41.1	47	26.9

Table 3: Distribution of the response of the sample by gender

Illness causation	**Male**			**Female**			**P**
	Yes	**Sometimes**	**No**	**Yes**	**Sometimes**	**No**	
Death of one of the family members	14	58	20	31	47	5	16.154
Social pressure	15	64	13	25	55	3	8.992
Torture	35	45	12	52	28	3	12.25
Sexual harassment	43	41	8	67	14	2	2.685
Anxiety and depression	58	27	7	50	33	0	7.750
Parental problems	25	49	18	32	45	6	6.584
Black magic	36	31	25	14	35	34	10.861

Table 4: Distribution of the response of the sample by economical status

Illness causation	**Very good**			**Good**			**Medium**			**Bad**			**P**
	Yes	**Some times**	**No**	**Yes**	**Some times**	**No**	**Yes**	**Some times**	**No**	**Yes**	**Some times**	**No**	
Malnutrition	11	1	2	55	34	2	34	32	1	1	1	1	20.885
Sedentary life	6	8	0	46	41	4	25	38	4	1	0	2	24.910
Black magic	1	10	3	25	28	38	21	28	18	3	0	0	18.952
Social value struggles	1	8	5	9	50	32	5	32	30	2	0	1	13.473

Table 5: Distribution of the response of the sample to the question about social value struggles by habitation

Habitation	**Yes**	**Sometimes**	**No**
City	11	40	19
Town	6	49	44
Village	0	1	5

Table 6: Distribution of the response of the sample to the question about stress by department

Department	Yes	Sometimes	No
Sociology	4	11	5
Psychology	8	20	8
Biology	10	4	3
Administration and Economy	11	11	3
Physics	6	10	1
Mathematics	1	13	0
Chemistry	5	11	3
English	11	12	4

Table 7: Distribution of the response of the sample to the question about bad social habits by department

Department	Yes	Sometimes	No
Sociology	1	11	8
Psychology	9	21	6
Biology	3	11	3
Administration and Economy	3	21	1
Physics	3	11	3
Mathematics	2	10	2
Chemistry	1	7	11
English	5	15	7

DISCUSSION

CULTURAL SYSTEM

Cultural systems models help explain the many factors that affect health by illustrating conditions affecting the causes and distributions of disease and the responses of individuals and health care systems. Economic, political, and other social conditions, as well as cultural values, beliefs, and meanings, have active roles in the causation of disease and the allocation of remedies. Cultural beliefs and resources, sickness and healing roles, and the distribution of resources affect an individual's experience of a condition. Cultural beliefs and technological, economic, and political priorities are reflected in treatment. Effectively addressing health requires understanding the structural components of cultural systems and their influences on health. Cultural systems approaches to health examine the interaction of the physical and sociocultural environments. The "environment" is not merely physical but fundamentally cultural, which includes economic, familial, community, class, political, and religious dimensions and their effects on the physical environment (Winkelman, 2009).

Professionals working with individuals with chronic illness or disability must understand the symptoms, limitations, and progression of a condition in order to facilitate individuals' adaptation to their condition and to maximize their potential for functioning. Insight into the medical nature of a condition helps guide professionals in assessments and interventions, as well as in understanding the physical consequences the individual is experiencing (Dudgeon et al, 2002).

It is also important for professionals to have insights into individuals' perception of their condition and the personal relevance and meaning it has for them so that interventions can be directed toward meeting specific needs (Shaw et al, 2002).

There must be an understanding of individuals' strengths, resources, and abilities as well as of the symptoms and limitations associated with the condition if one is to effectively assess the impact of the condition on their daily lives and goals in relationship to the tasks they perform at home, at work, and in their social environment (Falvo, 2005).

Health care system

Health care system is built on the base of sickness in every society. This system is influenced by patient experience, treatment, and health facilities. Health care system differs from other cultural systems by including health component. The healer and the patient are part of the cultural construction and social relationships. Being ill or cured are a part of the health care system, which are expressed as an experience and activity of cultural construction. Cultural construction has different interpretations by different cultures due to different concept toward ill-health and the patient-healer relationships.

Taking benefit from health care facilities has been developed to a model by Arthur Kleinman which is called Health Care System. This model stresses on the people's belief about illness, their assessing of the episodes of illness, and their decisions when suffering from a health disorders. He describes the local cultural system constructed from three overlapping sectors, which are popular, professional and folks. This system is different in relation to the social,

cultural and environmental traits and can be implicated in the developed society and developing societies as well, particularly on the post traditional societies (Kleinman, 1980).

Explanatory models

Kleinman defined this model as a group of ideas toward illness episodes and healing including the social meaning of illness experience. He emphasizes on five aspects of illness which are given explaining it, these are: "a) the etiology; b) time and mode of symptoms; c) pathophysiology; d) course of illness (including both degree of severity and type of sick role - acute, chronic, impaired, etc.); and e) treatment of the case" (Kleinman, 1980).

Health Belief Model

The Health Belief Model (HBM) is considered as the first theories of health behavior which was developed in the 1950s. According to nursing theories, this model relies on

four areas: "a) the severity of a potential illness; b) the person's susceptibility to that illness; c) the benefits of taking a preventive action; d) the barriers to taking that action". This model is applied in nursing focusing on patient compliance and preventive health care practices. According to this model, health-seeking behavior is affected by a person's perception of a threat from health problem and the actions for reducing the threat. HBM is the relationship between beliefs and behaviors. "There are six major concepts in HBM which are Perceived susceptibility, perceived severity, perceived benefits, perceived costs, motivation, and enabling or modifying factors" (Croyle, 2005).

However, HBM ignores social, economic, and emotional factors such as fear and denial. Outcome expectancy and self-efficacy are considered as alternative factors for prediction of health behavior (Seydel et al., 1990) (Schwarzer, 1992).

In addition to the mentioned theories and models, illness factors has been pointed out by Helman, including inherited folklore, which is influenced by concepts which are taken from the medical beliefs (Helman, 2001).

Bradley stated that "belief exists as a system in every society, which depends on the way of thinking within a medical system of a certain cultural construction. Medical systems involve traditional and modern that they differ from their medical practices and beliefs and knowledge as well as the way members of a sociocultural group receive care and treatment of illness" (Bradley, 1986).

Bowling conducted a study on health beliefs and illness causation among smokers from Turkish and white British backgrounds living in an inner London district. The study came to a result that internal and external factors are mentioned as causes of illness. The responds came from the Turkish participants more likely as to believe that their health was outside their immediate control. And most of respondents replied indicating positive conceptions of health, rather than negative concepts. When they asked to describe what it is like "when you are healthy" most respondents gave replies indicating positive conceptions of health (e.g. "happy") (Bowling, 1994).

Fabrega (1975) argued that "The inchoate state of ethnomedicine reflects and contributes to a lack of appreciation of the essential connection between ethnomedical questions and those that involve human evolution and social adaptation" (Fabrega, 1975). In our example we observed the biomedical, environmental, and sociocultural domains of illness causation. There were no significant differences between the illness causation beliefs relative to their gender, faculties, economic status, and habitant backgrounds. Probably, this was due to similar socialization and the similar cultural context of the college students. The important economic status based differences has been appeared in the ethnomedical views of the participants of this study relative to malnutrition, sedentary life, black magic and social value struggles. This result comes in relevance with naturalistic and personalistic explanations of etiology into pragmatic strategies for managing specific cases of illness (Kleinman, 1978). In terms of naturalistic causes of illness we noted that a high number of participants (78.3%) had believed in environmental causes of illness. In terms of personalistic approach, the college student's related illness causations to *jinn* induce, evil eyes, and black magic, such illness causation beliefs are due to factors of socialization and enculturation which varied in respect to certain illness causations especially between male and female students, and between students stemming from different socioeconomic status. Evil eyes as a belief is confirmed by early as well as by more recent scholars (Cox, 2001).

The 'evil eye' is inherited and does not necessarily imply malevolent intent. If a person with 'eyes' gives a blessing by spitting in the direction of any possible victim, the effect of the 'poison' is neutralized. However, there are malcontents and strangers who pass through an area who may wish to conceal their power. Unknown guests at local celebrations or feasts are, therefore, politely asked to spit. Moreover, a pregnant woman is expected to keep her body well covered in order to protect the foetus when there is a stranger in the vicinity. Partly because of the fear of 'eyes', children hide behind their mothers' skirts when visitors are coming. Even dangerous animals are sometimes said to have 'eyes' (Voshaar, 1979).

Jinn induce, evil eyes, and black magic are part of the belief system in Kurdish society that is embedded in the lay theory of the people as any other culture. It may be also related to individual decisions that are affected by their family backgrounds under the concept of the explanatory models.

Erika Brady stated that "individuals construct their health belief systems from diverse sources of authority, including community and ethnic tradition, education, spiritual beliefs, personal experience, influence of popular media, and perception of the goals and means of formal medicine. What is less evident is how these health belief systems of authority interact—sometimes competing, sometimes conflicting, sometimes remarkably congruent" (Brady, 2001).
One of the important aspects of explanation about illness is the etiology or cause of the condition. Kleinman agreed that "explanatory models tend to be idiosyncratic and changeable. They are heavily influenced by both personality and cultural factors, which are partly conscious and partly outside of awareness" (Kleinman, 1980) (Helman, 2001). That's why the personality and cultural factors played a crucial role about the explanations of the college students. The personality leads to discrepancies between thinking of both genders. The same interpretation is acceptable for the differences of illness causation beliefs related to the socioeconomic level of the participants of this study. Other factors which influenced the illness causation beliefs of the study sample were the cultural factors which mean the cultural context of the family based on the rural and urban habitation. This could determine the way of thinking and builds the type of belief toward health and illness.
Islamic and Christian ideas of *jinns* or evil spirits fit into the category of religious causation, while biomedicine with its secular basis is narrowly concerned with the category of natural and biological causation. As a rule, neither Christian and Islamic nor biomedical disease etiologies pay much regard to social aspects, even though indigenous African ideas of human causation may survive within new religious frameworks. As stressed by Feierman, corporeal individualism, which is 'cultural, not
natural or objective', pervades biomedical knowledge. While the plural and flexible character of African medical systems apparently is one of the reasons for the great adaptability to biomedical as well as to new religiously based etiologies and treatments, it seems that the influence of biomedicine tends to decrease the indigenous pluralism or multidimensionality in these fields. It is interesting to compare here the British historian Terence Ranger's more general discussion on religion, development and identity in Africa, in which he convincingly challenges the organic model of society and religion. Before the advent of modern colonialism, there was not, in his view, an organic collectivity but a creative and resilient pluralism. Commenting on the current situation, he argues that 'the real identity crisis in Africa is not found in changes from a single traditional "frozen" identity to a bewildering pluralism.
Westerlund (2006) also described disease causation beliefs within African indigenous religions rising from spiritual beings to living beings. He argued that if illnesses are thought to be caused by the active, purposeful intervention of human and suprahuman agents, they are personalistic, while naturalistic etiologies refer to natural forces or conditions. All medical systems are rooted in specific historical and cultural contexts, and the two principles discussed by Foster are found in the west too. There are, for instance, western Christians who believe in evil spirits as agents of disease. The personalistic principle can also be found in 'scientific' medicine. Biomedicine has a naturalistic character, but a more personalistic orientation is found in social medicine and medical psychology. Curative medicine, on the one hand, focuses on biology and the individual, while prevention and public health, on the other, are more concerned with social groups. To simplify somewhat, the biomedical paradigm tells us that, for example, tuberculosis is "caused" by Myobacterium tuberculosis, whereas the behavioral science paradigm tells us that tuberculosis is "caused" by poverty and malnutrition.'23 However, human beings are simultaneously cultural and biological creatures, and the two dimensions necessarily interact, in the west as well as in Africa and elsewhere (Weterlund, 2006).
Winkelman (2009) reported that Personalistic and naturalistic theories are analytically distinct but not mutually exclusive. Both may be present within a single disease: for instance, where sorcery (a personalistic cause) may dispose one to accidents (natural cause). Emotional causation of illness may fall into either category, evoked by supernatural (spirits, hexes) or interpersonal infl uences (threats, attacks, ridicule) that cause emotional responses (Winkelman, 2009).

CONCLUSIONS:

Cultural beliefs and knowledge have significant impact on understanding health and illness causation. Assessment of such beliefs in this study helped for finding positive and negative beliefs toward illness. Illness causation involves the biological, environmental, social, and cultural aspects. Relating illness causes to cultural aspects such as *jinn* induce, evil eyes, and black magic by the participants of this study brought an important issue regarding reforming health education system aiming to prevent diseases and enhance health among the students who are the crucial age group in the community. It has been recommended that the subject on "Understanding Health and Illness" should be added in the educational program of college students excluding medical students.

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