

Original Article

MYTHS & FALLACIES ABOUT HEALTH & DISEASE AMONG PATIENTS PRESENTING TO FAMILY PHYSICIANS AT THE AGA KHAN UNIVERSITY HOSPITAL KARACHI, PAKISTAN

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ABSTRACT

Objective: To study the myths and fallacies about health and disease among patients presenting to Family Physicians, at a teaching hospital in Karachi.

Study Design: Questionnaire based survey

Setting: Family practice clinic, the Aga Khan University hospital, Karachi

Main outcome measures: Myth and fallacy about health and disease held, not held or not sure.

Results: The number of respondents was 388. The study population was young, well educated and socio-economically better placed. Myths surveyed included whether breast-feeding be stopped in a child with diarrhea, antibiotics be taken with milk, use of inhalers be avoided in Asthma, Insulin use be avoided in Diabetes, epilepsy and tuberculosis are caused by evil spirits and stress, milk should not be consumed after eating fish, dental extraction from upper jaw leads to reduced vision, cancer can spread through close personal contact and is not preventable and that white spots on face are caused by calcium and iron deficiency.

Conclusions: Substantial myths and fallacies exist about health and disease in the Pakistani society. We recommend further studies and health education programs in this area.

KEY WORDS: Health myths-disease fallacies-false health beliefs.

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INTRODUCTION

In today's age of evidence-based practice, myths are expected to die their own death¹. But that has not happened so far and we hear of fallacies about health and disease every day, even in the developed world². Myths often arise when there are no answers to a scientific question³. People visit holy shrines in Pakistan and India, and offer prayers in the expectation that their illness will be cured⁴. In this day and age, holy spirits are still sought for medical cures⁵. We have terribly failed as medical practitioners, if we are unable to convince our patients of the scientific basis of our practice. So called "Black magic" and other such modalities of practice are sought for cure of medical illness⁶. A lot of prevalent

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misconceptions are of dietary origin, with possible adverse effects on the overall health⁷. A lot of fallacies exist even about common conditions such as fever⁸, fertility control⁹ and tuberculosis¹⁰. Certain myths are totally false such as the belief among Ethiopian Jews that hepatitis is caused by a bat flying around the affected person¹¹.

Myths and fallacies about health and disease are prevalent in Pakistan., which is evident from experience of clinicians. A lot of myths have been reported from neighboring India^{5,12}. There is shortage of documented data on this important issue from Pakistan.

The present questionnaire based survey was undertaken to study the myths and fallacies about health and disease among patients presenting to Family Physicians, at a teaching hospital in Karachi, Pakistan

SUBJECTS AND METHOD

After extensive literature search and feedback from colleagues, a questionnaire was developed to collect information on the prevalence of myths and fallacies about health and disease, among patients presenting to Family Physicians, at Aga Khan University Hospital in Karachi, Pakistan

A form was developed on the demographic parameters. The purpose of including these parameters in the study was to see the background of the study population.

Patients were administered questionnaire by convenience sampling. The study investigators administered the questionnaire after the patients agreed to participate in the study. The participating patient signed a consent form after assurance that confidentiality will be maintained was provided.

Sample size estimation:

Sample size estimate was based on the following assumptions for cross-sectional surveys.¹³

Population size: 3600

Estimated prevalence: 50%

+/- Maximum error: 5%

Sample size: 347

RESULTS

We were able to administer the survey questionnaire to 388 patients against a sample size estimate of 347. The majority of the respondents were young, well educated and better placed socio-economically. (Table -I)

Respondents either agreed with the myth and fallacy, did not agree or were not sure. (Table -II)

TABLE - I

Demographic profile of the study population
n = 388

S. No.	Parameter	Number (Percentage)
1.	<u>SEX:</u>	
	Males	147 (37.9)
	Females	241 (62.1)
2.	Mean Age (SD*) (In years)	35.4(12.36)
3.	<u>Marital Status:</u>	
	Single	86 (22.2)
	Married	296 (76.3)
	Others	6 (1.5)
4.	<u>Educational Status:</u>	
	Illiterate	44 (11.3)
	Primary	32 (8.2)
	Secondary	28 (7.2)
	Matriculation	66 (17)
	Intermediate	69 (18)
	Graduate	125 (32)
	Post-graduate	19 (5)
	Diploma	5 (1)
5.	<u>Occupational status:</u>	
	Private service	61 (15.7)
	Government service	25 (6.4)
	Self employed	44 (11.3)
	Student	41 (10.6)
	Laborer	5 (1)
	Unemployed	11 (3)
	Others including housewives	201 (51.8)

* Standard deviation

TABLE -II

List of Myths & Fallacies about Health & Disease

n = 388

S.No.	Myth & Fallacy	Yes		No		Don't know	
		Number	%	Number	%	Number	%
1.	All right if a patient with "cold" eats rice-based food?	131	(33.8)	241	(62.1)	16	(4.1)
2.	All right if a patient with "cold" drinks cold water?	49	(12.6)	339	(87.4)	–	–
3.	Breast feeding be stopped in a child with diarrhea?	41	(10.6)	286	(73.7)	61	(15.7)
4.	Antibiotics be taken with milk	198	(51)	164	(42.3)	26	(6.7)
5.	Manipulation of umbilicus help relieve abdominal pain?	166	(42.8)	145	(37.4)	77	(19.8)
6.	Use of Inhalers be avoided in Asthma?	76	(19.6)	250	(64.4)	62	(16)
7.	Use of Insulin be avoided in Diabetes Mellitus?	102	(26.3)	178	(45.9)	108	(27.8)
8.	Epilepsy is caused by evil spirits?	50	(12.9)	278	(71.6)	60	(15.5)
9.	Epilepsy is caused by stress?	284	(73.2)	51	(13.1)	53	(13.7)
10.	Tuberculosis is caused by evil spirits?	41	(10.5)	322	(83)	25	(6.5)
11.	Tuberculosis is caused by stress?	191	(49.2)	166	(42.8)	31	(8)
12.	After eating fish can a person drink milk?	96	(24.7)	280	(72.2)	12	(3.1)
13.	Dental extraction from upper jaw reduces vision?	177	(45.5)	91	(23.5)	120	(31)
14.	Ill-health can be caused by evil spirits?	93	(24)	280	(72.2)	15	(3.9)
15.	Ill-health can be caused by admiring a person?	181	(46.6)	197	(50.8)	10	(2.6)
16.	Cancer can spread through close personal contact?	67	(17.3)	289	(74.5)	32	(8.2)
17.	Is cancer a preventable condition?	248	(63.9)	108	(27.8)	32	(8.2)
18.	Marrying first cousin leads to diseases?	245	(63.1)	109	(28.1)	34	(8.8)
19.	White spots on face are caused by Calcium deficiency?	305	(78.6)	17	(4.4)	66	(17)
20.	White spots on face are caused by Iron deficiency?	190	(48.9)	94	(24.2)	104	(26.8)

DISCUSSION

The study population was young with a mean age of 35.4 years, more being females, married, and well educated. The majority were students, in private or government service or self employed. Since our study population was more educated and better placed than the rest of the population, we therefore expect a far worse situation out in the community, in terms of the prevalence of myths about health and disease.

Avoidance of rice based food and cold drinking water by common cold patients is without

any scientific basis, yet followed widely in the community.

Breast-feeding during diarrhea has been widely recommended but not followed. In Bangladesh, 22.2% of the mothers were found to discontinue the practice¹⁴. This myth is found in our study subjects and therefore, extensive patient education program is required in this area. Antibiotics are considered hot and heavy medicines which must be consumed with milk, resulting in interference with their absorption.

It is a common practice that abdominal pain can be cured with the manipulation of the

umbilicus by a non medical person in the community. It is possible that patients with acute abdominal conditions such as acute appendicitis and acute cholecystitis end up having their abdomen manipulated by quacks resulting in serious adverse consequences.

There is a lot of misinformation about the use of Inhalers in the treatment of asthma and it is considered an addicting medicine and that nothing else works if they are used by patients. Similar views are held about the use of Insulin by the Diabetic patients. One wonders how many patients are deprived of the good use of these medicines because of such unfounded myths.

People still believe that evil spirits and stress cause Epilepsy and Tuberculosis. Patient education programs are required to give them proper information. Quacks exploit such patients because of their false beliefs.

It is a common myth that one should not drink milk after eating fish. It is believed that it leads to vitiligo.

A lot of dental extractions are postponed or deferred indefinitely because vision is thought to be adversely effected. One can imagine the unnecessary suffering of these patients.

It is widely believed that illness can be caused by evil spirits and by admiring a person. Such beliefs lead to exploitation by the quacks.

People believe that cancer is contagious and therefore contacts with cancer patients should be avoided. This results in avoidance of looking after of cancer patients by relatives at home. Cancer is still considered as not preventable, resulting in failure of our efforts to prevent it. Still people are unaware of the adverse medical consequences of first cousin marriages and as a consequence, upto 60% consanguineous marriages are reported in Pakistan¹⁵.

Benign white spots on face are regarded as a sign of deficiency of calcium or iron. Unnecessary calcium and iron supplements are given to such patients specially children, with adverse consequences.

We have documented some of the common myths about health and disease that have adverse consequences. We recommend further studies in this important area of preventive medicine and strongly advocate patient education programs to eliminate such fallacies from our society.

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