

## KNOWLEDGE ATTITUDE AND PRACTICES ABOUT LEPROSY IN A FISHING COMMUNITY IN KARACHI PAKISTAN

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### ABSTRACT

**Objective:** To determine the level of knowledge, attitude and practices regarding leprosy in a fishing community of Karachi.

**Methodology:** A cross-sectional study was conducted at Muach Goth Kemari Town Karachi, from June-August 2005. About 300 people who did not have leprosy were interviewed randomly using a structured pre tested questionnaire. The inclusion criteria were adult, non diseased and resident of Muach Goth Kemari town.

**Results:** The findings of this study showed lack of knowledge about the cause, sign symptom, treatment and prevention of disease. The attitude towards the patient was found positive showing sympathy but at the same time significant level of stigma was found about the leprosy patient among the community. The majority of people did not receive any health education session or attended any seminar on leprosy and only 3% were aware of leprosy center in the area.

**Conclusion:** The community lacks knowledge about leprosy. Emphasis must be given on Health education. A high positive attitude was found with significant level of stigma. Only educational efforts can bring about change to overcome the disease and improve knowledge of the people.

**KEY WORDS:** Leprosy, Knowledge, Attitude, Stigma.

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### INTRODUCTION

Leprosy has ceased to be a public health problem, despite this social stigma continuous because of the physical deformities suffered by the diseased. World Health Organization received official reports from 115 countries and

territories, the global registered prevalence of leprosy at the beginning of 2006 stood at 219,826 cases, while the number of new cases detected during 2005 was 296,499. The pockets of high endemicity still remain in some areas of the world.<sup>1,2</sup> Leprosy is more than the mere patho-physiological process of tissues being invaded by a causative agent. It is the disease, which affects the psychological, social and spiritual well being of the patients and his/her family, friends and the community.<sup>3</sup> There are number of cross-sectional studies which were conducted to find out public attitudes towards leprosy in the communities, patients, families of patients and rehabilitation homes in India, China and in Africa. The results showed negative attitude towards leprosy. The knowledge regarding the cause and mode of spread and duration of treatment was lacking in patients and lesser level of education is associated with unhealthy attitude, which leads to chronicity. The reasons for this appear to be

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the communities and patients deeply entrenched belief that leprosy is hereditary, contagious, possibilities of treatment are better known to the patients and they admit that they come after delay due to shyness.<sup>4-10</sup>

The results of above mentioned studies showed that there is a need to educate people and impress on the population that leprosy is a treatable infectious disease, which is not congenitally acquired, and that it is curable if detected early. There is a need of continuous education so the disease could be understood in its right context. As our knowledge increases, we are able to do more about an ever-widening range of problems. As our values change, we sometimes recognize health problems, aspects of life that had previously been taken for granted as normal and acceptable.

Pakistan is believed to still harbor approximately 20,000 individuals infected with leprosy. The disease itself inflicts long term psychological, physical and social damage on its sufferers.<sup>3</sup> World Health Organization in 1991 set the goal of elimination of leprosy by the year 2000 through its resolution WHA44.9.<sup>11</sup> Pakistan has achieved the goal of leprosy cases less than one per 10,000 population in 1996. The decrease in prevalence rate of leprosy may be deceptive because it is masking the existence of numerous smaller foci of high prevalence in some of the communities and due to this numbers of cases will continue to occur for several years after achieving the goal. It requires continuous health education activities to avoid delay at any stage of the disease.<sup>12</sup> In achieving WHO's elimination target "does not mean the end of leprosy or of work on behalf of all those people who are and will be affected by the disease".<sup>13</sup> We should focus on the control of this neglected tropical disease till eradication. Eradication means complete interruption of transmission resulting in no disease and total disappearance of the organism and require search for early case detection, which are not registered for treatment.<sup>14</sup>

The purpose of this study is to identify the gaps in knowledge of people who are disease free and living in Muach Goth Kemari Town

Karachi. There is no previous study reported from the community settings of Pakistan. This will be helpful in developing health education interventions and information obtained from the study can be utilized for future health education interventions.

## SUBJECTS AND METHODS

A cross-sectional study was conducted at Muach Goth of Kemari town in Karachi during June-August 2005. About 300 individuals from the community were interviewed by using the assumptions that proportion of individuals aware about disease Leprosy is 15%, Probability of type 1 error,  $\alpha=0.05$  with beta 0.2 (power 0.80) from 300000 population, the worst acceptable range taken was 10% with 95% confidence interval. Using simple random sampling technique the sample size was achieved. Information was obtained by using a structured questionnaire, which was designed in English language. The questionnaire was translated into Urdu language and then back translated into English language to remove the ambiguities of the language and 15% of the questionnaire from total sample size were pre-tested in a similar setting. The study subjects included were of 18 years of age and above, resident of Kemari town Karachi. The questionnaire included the socio-demographic variables like age, sex, educational status, ethnicity, marital status, occupation and income of the household. The other variables included were related to knowledge, attitude and practices about leprosy. The data collected was entered and analyzed by using SPSS program.

## RESULTS

About 45.6% respondents were in age group 18-30 years of age, 35.3% in 31-50 years group and 19% above 50 years of age. Among them 77% were male and 33% female. About 40% were illiterate and 51% had 5 years schooling and only eight percent had more than five years of schooling. Sixty percent was private employee with monthly household income of more than 15000 rupee (50%). About 63% were Kachi by ethnicity.

Table-I describes the knowledge regarding leprosy. Almost all of the study subjects were unaware regarding cause of disease and only 2.3% mentioned that leprosy is a contagious disease, and 4% mentioned that how leprosy

Table-I: Distribution of variables regarding knowledge about leprosy among respondents

<i>Variables</i>	<i>Frequency n=300</i>	<i>Percent</i>
<i>Cause of leprosy</i>		
Not known	300	100
<i>Contagiousness of leprosy</i>		
Yes	7	2.3
No	6	2
Don't know	287	95.7
<i>Leprosy can be contracted</i>		
Yes	12	4.1
No	8	2.6
Don't know	280	93.3
<i>Sign and symptoms</i>		
White spots	32	10.7
Don't know	268	89.3
<i>Leprosy curable</i>		
Yes	55	18.3
No	245	81.7
<i>Know any leprosy relative/acquaintance</i>		
Yes	22	7.3
No	278	92.7
<i>How leprosy spread?</i>		
Yes	205	68.3
No	95	31.7
<i>Leprosy preventable</i>		
Yes	15	5
Don't know	285	95
<i>How leprosy can be prevented?</i>		
Don't know	285	95
Avoid fish with milk	9	3
Clean environment	6	2
<i>Know type of treatment required</i>		
Yes	13	4.3
No	287	95.7
<i>Duration of treatment</i>		
Don't know	300	100
<i>Ever attended seminar or health education session on leprosy</i>		
No	300	100
<i>Know any leprosy center in your area</i>		
Yes	10	3.3
No	290	96.7

can be contracted. Ninety percent of people were unaware regarding the sign and symptoms of disease and 82% mentioned that leprosy is not curable. Only 7.3% people mentioned that they had any leprosy relative or acquaintance. About 31% were unaware about how leprosy spread. And only 5% mentioned that leprosy could be prevented. About three percent said that it could be avoided by not having milk after eating fish and two percent said that clean environment could prevent leprosy. About 97% did not mention the type of treatment required for leprosy and no one mentioned how long treatment is required. No one attended the seminar or health education session on leprosy and only 3.3% were aware about the leprosy center in the area.

Table-II describes the attitude of people regarding leprosy. About 97% of people said that they feel sympathetic when they see a leprosy patient, 2.7% were afraid of them and only 0.3% had normal feelings. On asking question if they have leprosy member in family 97% feel sympathetic about it and 3% feel afraid, 95% said they would not be ashamed to tell about leprosy member in family while 5% would be. About 98% said that they shake hand with leprosy patient while 2% did not. On sharing food from same plate of ex-leprosy patient 95% said no and only 5% said yes. All (100%) were of opinion that it is difficult for leprosy patient to get married. About 95% of people said that they will not give job to ex-leprosy patient. Ninety five percent said that leprosy patient face bleak future, 10% said they would mind sitting side by side with leprosy patient in public transport, 99% said that leprosy patient should be treated with more compassion. Fourteen percent said they would be panic if a leprosy patient approaches them and 32% said that they could not imagine working with a leper.

## DISCUSSION

Leprosy is an indigenous as well as migration problem in Pakistan<sup>14</sup> and is a neglected tropical disease. We have to work on its prevention and control. A lack of accurate knowl-

Table-II: Distribution of variables regarding respondents attitude regarding leprosy

<i>Variables</i>	<i>Frequency</i> <i>n=300</i>	<i>Percent</i>
<i>Feeling to see leprosy patient</i>		
Normal	1	0.3
Afraid	8	2.7
Sympathetic	291	97
<i>Feeling to have a leprosy family member</i>		
Afraid	10	3.3
Sympathetic	290	96.7
<i>Feel ashamed to tell others if having any leper in family</i>		
Yes	16	5.3
No	284	94.7
<i>Will you shake hand with leprosy patient?</i>		
Yes	293	97.7
No	7	2.3
<i>Will you share food from the same plate with an ex-leprosy patient?</i>		
Yes	15	5
No	285	95
<i>Will you think that it is difficult for leprosy patient to get married?</i>		
Yes	300	100
<i>Will you give job to ex-leprosy patient?</i>		
Yes	14	4.7
No	286	95.3
<i>Do you feel that leprosy patient face a bleak future?</i>		
Yes	295	98.3
No	5	1.7
<i>Will you mind sitting side by side with leper in a public conveyance?</i>		
Yes	29	9.7
No	271	90.3
<i>Do you think that leper should be treated with more compassion?</i>		
Yes	298	99.3
No	2	0.7
<i>Will you panic when leper approaches you?</i>		
Yes	43	14.3
No	257	85.7
<i>Can you imagine yourself working with leper?</i>		
Yes	95	31.7
No	205	68.3

edge about leprosy in the community could be an important factor in hindering leprosy control. Studies have assessed the knowledge and attitude of leprosy among community and number of studies have documented the effectiveness of health education given in leprosy.<sup>15</sup> Another study conducted on knowledge and

attitude indicated a lack of accurate knowledge about leprosy among the general population.<sup>16</sup> Our study findings are consistent with the findings of these studies and show lack of knowledge about the disease etiology, sign and symptoms, treatment and prevention of disease. Despite wide gap in knowledge regarding cause, sign and symptoms, treatment and prevention of disease, a positive attitude showed sympathetic element in the heart and mind of common people. A study conducted in India showed that a high level of knowledge did not necessarily generate positive attitude, there was general negative attitude despite 35% to 50% of people having high level of knowledge.<sup>17</sup>

In our study about 60% of people were educated up to 5 years or more schooling but were unaware about leprosy. The NELP study of India has found a low correlation between knowledge and attitude among the community with relation to leprosy.<sup>18</sup> The study by Raju and Kopparty<sup>19</sup> in Andhra Pradesh and Orrisa states of India showed that in Andhra, 50% of the respondents had a high knowledge levels; however, only 25% had a positive attitude towards leprosy, indicating that good knowledge and a positive attitude towards disease, indicating that good knowledge and positive attitude do not necessarily go together. However, in Orissa almost all respondents had a negative attitude towards leprosy. In the present study, even though the majority had low level of knowledge but showed high positive attitude.

Publications describing community knowledge, attitude and practices relating to leprosy are few indeed, and the authors could find none relating to Pakistan. On asking about marriage all to said that it is difficult for leprosy patient to get married. Another study showed similar finding in which none of respondent was prepared to marry into a family with leprosy.<sup>20</sup> In our study majority of people showed positive attitude but a significant level of stigma is present in the community.

More than 90% of respondent mentioned that they will not work with lepers, do not share food or give job to a leper. About 98% respon-

dents said that leprosy patient face a bleak future. Many other studies reported similar kind of stigma about leprosy.<sup>16,21</sup> The social stigma of leprosy, a primitive fear evoking a guilt complex in the sufferer and the observer, a rationale fear of contagion, and the religious fear of divine punishment.<sup>22</sup> In Pakistan leprosy victims face as much as discrimination and abhorrence as elsewhere in the world.<sup>23</sup> Family has to play an important role in leprosy control. Family member's knowledge about disease and their relation to the patient within family determine their behavior towards patients' treatment. Family members who have knowledge of disease and close relation to patient tended to give more supervision and encourage the patient treatment, which could significantly improve the outcome of treatment. In this study none of the participant attended a health education session or seminar on leprosy and only three percent were aware about the leprosy center in the area.

### CONCLUSION

The study concluded that the fishing community lacks knowledge about leprosy so greater emphasis must be given on health education. A high positive attitude was found with significant level of stigma. Only educational efforts can bring about change to overcome this disease.

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