



## KAB STUDY ON LEPROSY AMONG GENERAL POPULATION

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### ABSTRACT

**Background:** Leprosy is often referred to as one of the oldest disease known to man. Of all the communicable diseases, leprosy has the most potential to cause progressive and permanent physical disability. This study was undertaken to assess the Knowledge, Attitude and Behaviour (KAB) towards leprosy among general population.

**Material and Methods:** A cross sectional survey was done among the general population visiting DVL OPD at Sree Balaji medical college and hospital using self reported questionnaire after obtaining the approval of the Institutional Ethics Committee of the Medical College. A sample size of 100 was taken. Data entry was done in SPSS 22.0 version.

**Results:** It was found that knowledge on leprosy was unfavourable, more than 65% didn't know the cause of leprosy and 75% didn't know about the treatment of leprosy. Regarding attitude most didn't want to shake hands (59%) or share food (63%) with a leprosy patient. Regarding behaviour most felt sympathetic (81%) on seeing a leprosy patient.

**Conclusion:** This study result shows that the knowledge and attitude on leprosy were unfavorable. In spite of the existence of the National Programme for Leprosy since 1955 the awareness and attitude on leprosy is inadequate. There would be steady improvement in the knowledge and attitude of the population through behaviour change communication (BCC) programs in the community.

**Key words:** Leprosy, Knowledge, Attitude, Stigma.

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### INTRODUCTION:

Leprosy is often referred to as one of the oldest disease known to man. Of all the communicable diseases, leprosy has the most potential to cause progressive and permanent physical disability. In addition the disease and visible deformities there is intense social stigma and social discrimination of the patients<sup>[1]</sup>. Rejection, exclusion, blame or devaluation that results from experience, perception or reasonable anticipation of an adverse social judgment about a person or group are the stigmas of leprosy. Based on old religious

traditions leprosy sufferers were isolated to keep them out of sight.

### MATERIAL AND METHODS:

A cross sectional survey was done among the general population visiting Dermatology Venereology and Leprosy outpatient department at Sree Balaji medical college and hospital from January to February 2021. Individuals who were between 18 to 60 years of age were included in this study. People who are not willing to participate were excluded.

Study Design: Cross sectional study

Study Area: Skin Outpatient Department, Sree Balaji Medical College and Hospital

Study Population: General population

Study Setting: General population coming to OPD of SBMCH, a tertiary care hospital, No 7, Works road, Chrompet, Chennai, Tamilnadu.

Study Sample: Sample size of 100 was taken.

Sample size calculation:

$$N = (Z^2 (1 - \alpha/2) pq) / d^2$$

Z 2 1-  $\alpha/2$  = Level of confidence i.e

p = proportion of outcome i.e., 14%

q=100-p

d= precision i.e.12%

Sample Size: 100

Type of sampling: Purposive sampling

Data collection method: Using self reported questionnaire. Questionnaire was designed in a manner that the general population could understand and was distributed randomly irrespective of gender.

Data entry was done on MS Excel and data analysis in SPSS 22.0 version.

## RESULTS:

**Table 1: Knowledge about Leprosy**

Question	Know %	Don't Know %
Do you know the cause of leprosy?	36%	64%
Does leprosy spread from person to person?	71	29
Is leprosy curable?	69	31
Do you know any relative with leprosy?	29	71
Do you know any leprosy centre in your area?	19	81
Do you know about the treatment of leprosy?	25	75

Table 1 shows the knowledge of Leprosy. About 64% didn't know the cause of leprosy. Nearly 71% knew that leprosy can spread (Fig.1). About 69% knew it was curable. Nearly 81% were not aware of any nearby leprosy centres. About 75% didn't know about the treatment of leprosy (Fig.2).

**Table 2 a: Attitude towards Leprosy**

Question	Normal	Afraid	Sympathetic
How do you feel on seeing a leprosy patient?	47%	38%	15%
How do you feel when a family member is affected with leprosy?	-	19%	81%

Regarding attitude 47% felt normal seeing a leprosy patient. When a family member was affected by leprosy 85% felt sympathetic. (Table 2a)

**Table 2 b: Attitude towards Leprosy**

Question	Yes %	No%
Do you feel ashamed to tell others that your family member has leprosy?	21	79
Will you shake hands with a leprosy patient?	41	59
Will you share food from the same plate with a treated leprosy patient?	37	63
Will you think that it is difficult for a leprosy patients to get married?	54	46
Will you give job to a treated leprosy patient?	81	19
Will you panic when a leprosy patient approaches you?	31	69
Do you think that leprosy patients should be treated with more compassion?	88	12
Can you imagine yourself working with a leprosy patient?	83	17

71% felt ashamed of tell others that their family member has leprosy. 59% didn't want to shake hands with leprosy patients. 63% didn't want to share food from the same plate of leprosy patient.81% felt that they would give jobs to a treated leprosy patient.69% said they would not panic when a leprosy patient approached them. 83% were ready to work with a leprosy patient. (Table 2b, Fig.3)

**Table 3: Practice in Leprosy**

Question	Yes %	No%
Do you wear any gloves while handling leprosy patients or the object used by them?	76	24
Do you think leprosy patient requires counselling?	73	27
Do you think leprosy patients must be isolated from normal people?	23	77
Do you think leprosy is associated with shame?	22	78
Do you think leprosy patient requires special footwear to prevent from ulcers?	65	35

Regarding practice 76% wore gloves while handling the patients and 73% believed that leprosy patients require counseling. About 77% said no for isolating leprosy patients. Nearly 78% felt that leprosy is not associated with shame and 65% knew that leprosy patients require special footwear to prevent from ulcer. (Table 3)



Fig. 1: Knowledge on spread of Leprosy

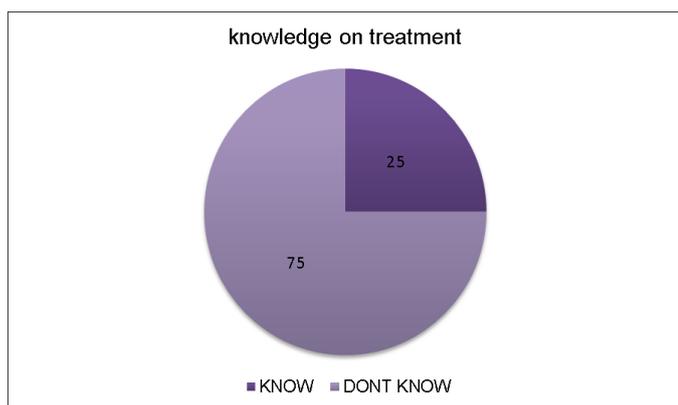


Fig. 2: Knowledge on treatment of Leprosy

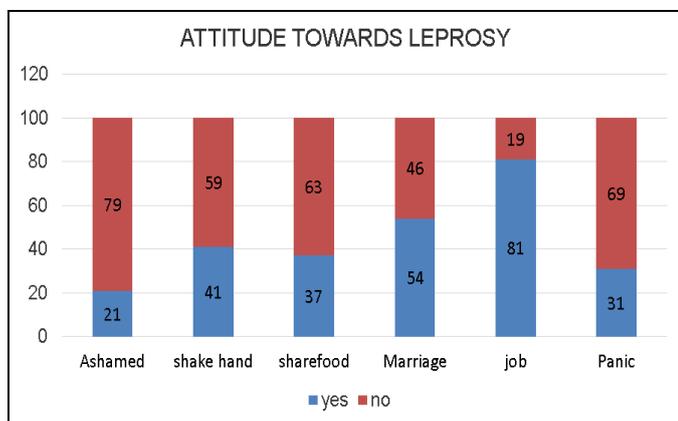


Fig. 3: Attitude towards Leprosy

**DISCUSSION:**

The causative organism of Leprosy is Mycobacterium leprae. The mode of transmission is usually through droplet infection. It primarily affects skin and nerves<sup>[2]</sup>. The clinical spectrum varies from very mild and limited cutaneous disease to very severe one with extensive nerve and systemic involvement. In severe forms of the disease there is various mutilating deformities and disabilities with disability index as high as 55%<sup>[3]</sup>. The infection must be treated at initial stages if left untreated it may progress slowly to its severe and complicated form. Therefore, early recognition and prompt therapeutic intervention is prudent to halt the disease at its initial stages and spare the patients from gruesome complications and resultant prejudice of late disease. The social prejudice of leprosy is as grave as its morbid complications like bony deformities<sup>[4]</sup>.

**Knowledge about Leprosy:**

This study showed that nearly 45% of respondents had inadequate knowledge of leprosy. A similar finding was reported by a study conducted by Raju MS *et al.*, where 35%–50% of the participants were noted to have adequate knowledge on leprosy, but the attitude was more in negative.<sup>[5]</sup> A study done in Eastern Ethiopia found that 56.91% had high knowledge of leprosy.<sup>[6]</sup> A study conducted by Mohite RV *et al.* in a rural community in Karad reported that nearly 79% of respondents had good knowledge and 69% had a positive attitude towards leprosy.<sup>[7]</sup> Majority of the people (64%) did not know about the causal agent of leprosy and only a few (36%) knew about it. A similar finding was noted in the study by Tesema AA *et al.* where 48.3% reported that leprosy is caused due to bacteria.<sup>[4]</sup> A study carried out in Mexico reported 60% of the study participants had the knowledge on the cause of leprosy.<sup>[8]</sup> In the study by Mohite RV *et al.*, nearly 66% of respondents had knowledge on the cause of leprosy. Stephen T *et al.* in their study in Tamil Nadu noted that 32% of leprosy patients and 37% of their family members were aware of the cause of leprosy.<sup>[9]</sup> Danturty I *et al.* in a study carried out in Secunderabad reported that 44% of the participants knew the cause of leprosy.<sup>[10]</sup>

Similar findings were noted in studies carried out in Uttar Pradesh and in Nepal.<sup>[11],[12]</sup> Regarding the spread of leprosy 71% of people were aware that they spread from one to another. Knowledge about mode of transmission and of any infectious is important in its control and prevention. 67% believes that leprosy is curable but only 25% of people are aware about the treatment of leprosy. In the study carried out in Secunderabad, only 29% of the respondents were aware that leprosy is treatable and curable.<sup>[13]</sup> In the Ethiopian study, a higher proportion of the study subjects (93%) responded that leprosy is treatable with modern drugs.<sup>[14]</sup> Whereas, the study carried out in Mexico reported that only 31% were aware that leprosy is treatable.<sup>[15]</sup> Majority of people were unaware about the multi drug therapy in treating leprosy.

#### **Attitude towards Leprosy:**

Regarding attitude, majority of the people felt normal (47%) on seeing a leprosy patient and 81% felt sympathetic when they had a family member with leprosy. 63% were not willing to share food from the same plate, in a similar study in western rajasthan 39% of the people were not comfortable with idea of sharing food with a leprosy patient. and 59% didnot want to shake hands with a leprosy patient. 54% of people feel that it is difficult for leprosy patient to get married. 69% did not panic when a leprosy patient approaches them and 89% of people felt that leprosy patients should be treated with compassion. In a study in Karachi More than 90% of respondent mentioned that they will not work with lepers, do not share food or give job to a leper. The various stigmas towards leprosy were avoidance of contact with a diseased person, not sharing personal belongings, refusal to allow children to mingle with the patients' children, or sitting next to the patient. They expressed negative feelings in the form of fear, hopeless reaction, or shame if they were diagnosed with leprosy. These factors could in turn contribute to the cover-up of the symptoms/signs of the disease. Similar findings were noted among the studies carried out by Singh *et al.*, Adhikari *et al.* and Hejinders ML *et al.*<sup>[16][17][18]</sup> Owing to these stigmas, leprosy patients tend to suffer from psychosocial problems such as depression and anxiety.<sup>[19]</sup>

#### **Practices in Leprosy:**

Regarding practice in leprosy, 76 % wears gloves while handling objects used by leprosy patients similar study by Adhikari et al only 50% wear gloves while handling objects<sup>[17]</sup>. 73% of people felt leprosy patients require counseling. 77 % people felt that there was no need for a leprosy patient to be isolated from normal people. 65% thinks that leprosy patients require special footwear to prevent form ulcers.

#### **CONCLUSION:**

This study shows that the knowledge and attitude on leprosy were unfavorable. In spite of the existence of the National Programme for Leprosy since 1955 the awareness and attitude on leprosy is inadequate. There would be steady improvement in the knowledge and attitude of the population through behaviour change communication (BCC) programs in the community. These programs should be redesigned with the involvement of the community, social activists, local leaders, local family physicians, primary health care providers, and the print and visual media. Educating the population on emphasizing early diagnosis and prompt treatment of leprosy as per the standard treatment guidelines based on NLEP needs to be carried out both in rural and urban communities.

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