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A Study of Knowledge, Attitude and Practices about Leprosy among Rural Population

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Abstract

Introduction: Hanson's disease is of great antiquity and full of prejudices. Misconceptions and stigma associated with it not only cause untold misery to patient, but to his family as well. The adversities suffered by leprosy patients are multi-faceted, ranging from medical, social and psychological to economic and legal. India alone contributes nearly 58.85 per cent of the global leprosy burden. With this in the backdrop, present study was undertaken in a rural area near Pune, with an aim to assess the knowledge regarding leprosy and determine prevailing beliefs and attitude in the community.

Aims and Objectives:

1. To assess the knowledge, attitude and practices about leprosy in the community
2. To find out the perceived stigma.

Material and Methods: A cross sectional study was conducted in Wanowari area, which is located near Pune Cantonment of Maharashtra. A total of 500 people aged more than 18 years were randomly selected. A pre-designed and pre-structured questionnaire was used to evaluate knowledge, attitude and perceived stigma. Data analysis was done with the help of SPSS package.

Results: Population under survey had 57.6% literacy rate with majority of them (46.4%) belonging to Socioeconomic class III. Study revealed that 42% of them were aware that the disease is caused by bacteria. However, 10% people felt that it was result of old sins. Prolonged contact is the mode of transmission; was felt by 53.6% while 21.4% thought

it is airborne. The attitude of the general population towards the patients was found to be positive and sympathetic.

Conclusion: Present study brings out that, though people have knowledge, but need a change in their attitude. Further, socio-economic improvement of persons, affected by leprosy will result in increased self-confidence and prevent marginalization. Health education is essential to dispel misconceptions about the disease.

Keywords: Stigma; Knowledge; Attitude; Segregation.

Introduction

"Leprosy work is not merely medical relief but it is transforming the frustration of life into joy of dedication and personal ambition into selfless services" -Mahatma Gandhi.

Leprosy is probably the oldest disease known to mankind. In India leprosy was known since ancient time as 'Kustharoga' and attributed to punishment or curse from God [1].

Studies indicate that Leprosy associated stigma is still a global phenomenon. Consequently patients face social rejection and may quit home permanently, joining the anonymous society of street beggars, a phenomenon not uncommon in the towns and cities of endemic countries [2-5]. Even the family is tainted with the stigma, especially in societies where the disease is thought to be a curse of God.

Despite multifaceted advances in the diagnosis

and treatment of Leprosy, it still continues to be a global health problem. The global registered prevalence of leprosy at the end of first quarter of 2014 was estimated as 0.32 per 10000 populations. During 2013, a total of 215656 new cases were reported from 103 countries. About 9 per cent of these new cases were in children, which indicate continued transmission of the disease. South-East Asia region (SEAR) recorded highest prevalence of disease with India alone contributing nearly 58% of the global leprosy cases [6].

In India a total of 127000 new cases were registered during 2013-2014. Annual new case detection rate was 9.98 per 100,000 populations, giving a prevalence ratio (PR) of 0.68 per 10,000; which is twofold higher than the global prevalence ratio of 0.32/100,000. Although, integration of primary leprosy services into existing general health system has made treatment more accessible to common men and helped in reduction of stigma to a great extent. The WHO Global Target aims at 35 per cent reduction in the rate of new grade 2 disabilities (G2D cases) per 100000 by the end of 2015, compared to baseline (at the end of 2010) and to reduce the burden to one new G2D case per one million by 2020 [7-10].

There is an urgent need for the public sector, NGOs and Private partners to join hands to fight leprosy. Continued training of medical as well as paramedical staff on diagnosis and treatment of leprosy is an essential requirement. Disability prevention, rehabilitation of patients and training in self-care are very crucial to make the patient self-sufficient and fight the stigma. These patients need empathy rather than sympathy [11].

The set of beliefs, knowledge and perceptions towards a disease play a vital role in the construction of stigma towards a disease. No disease has been more closely associated with stigma than leprosy such that it has become a metaphor for stigma. Stigma is a serious obstacle to case finding and effective management of leprosy cases [12]. Knowledge, attitude and practices of the community regarding this disease have to be thoroughly understood before we embark on the success of

National Leprosy Eradication Programme.

With this in the back drop, a study was undertaken in a rural area of Pune with an view to assess the knowledge, attitude and prevailing beliefs in the community regarding leprosy.

Objectives

To assess the knowledge regarding leprosy transmission and its curability; and to determine the prevailing beliefs, stigma and attitude in the community.

Material and Methods

A cross sectional study was conducted in Wanowari area, which is located near Pune Cantonment of Maharashtra. A total of 500 people aged more than 18 years were randomly selected and their consent for the study was obtained. Patients with debilitating disease and psychiatric problems were excluded from the study. Migrants population was also excluded from the study. A pre-designed and pre-structured questionnaire was used to evaluate knowledge, attitude, belief and perceived stigma in the selected study population. The questionnaire was piloted and necessary changes were made. Data analysis was done with the help of SPSS package.

Results

Demographic Profile

In the study population, 47.4% were males and 52.6% were females. Majority of the them (64.6%) belonged to the age group of 21- 40 years (Table 1/ Figure 1a). The literacy rate in the study population was found to be 57.6%, and majority of them (46.4%) belonged to Socio-economic class III; while a very small number (1%) belonged to social class V (Figure 1b).

Table 1: Demographic Profile

Age	Male	Female	Total
<20 YRS	18	24	42
21-30 YRS	66	91	157
31-40 YRS	86	80	166
41-50 YRS	36	38	74
>50 YRS	31	30	61
Total	237	263	500

Knowledge about the Disease

The study revealed that fairly large number (41.0%) of people knew that cause of leprosy was an infection, while 33% of them thought it was hereditary. However, a small number (9%) still felt that it was due to old sins (Figure 2).

Among those who felt that the cause of leprosy was an infection, 54.0% of them were in agreement that it was transmitted due to prolonged contact while 21% of them felt it spread due to coughing or sneezing. However, 16% of them felt it was transmitted due to unhygienic conditions. A small number also attributed the cause of spread to contaminated water, sharing toilets and using clothes of leprosy patient (Figure 3).

Age wise Sex Distribution

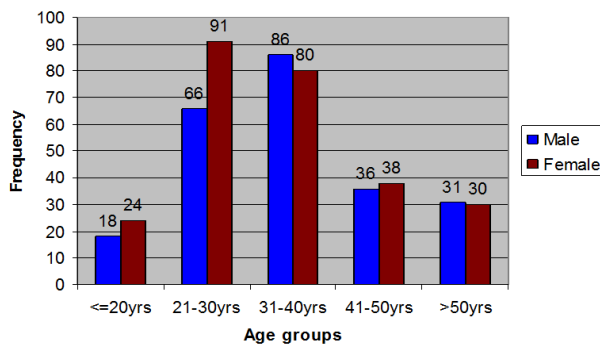


Fig. 1a:

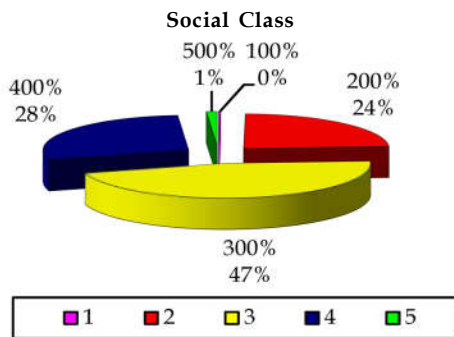


Fig. 1b:

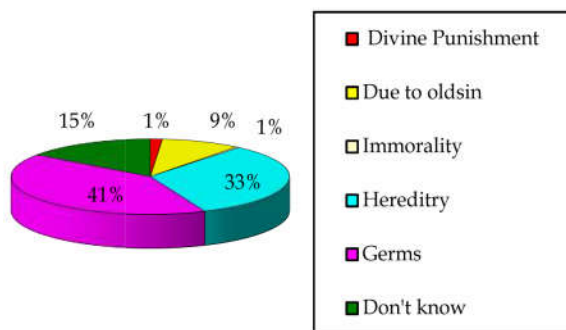


Fig. 2: Knowledge of cause of leprosy

Interestingly a large number of subject population (83.0%) felt that the diseases was treatable while only a small number (6.2%) felt it had no cure (Figure 4). More than 80% subjects were also aware that its treatment is available in government hospitals without any charges. The source of this information was quoted to be mass media.

Attitudes towards Leprosy Patients

It was encouraging to observe that majority of the subject population (68.6%) felt that leprosy patients need not be segregated; while a smaller number i.e. 31.4% only were in favor of segregation (Figure 5). Sixty percent of them were willing to permit their children to play with those of leprosy patients; while 40.4% were unwilling, fearing that their children might contract the disease from them.

It was heartening to note that 79% percent of the study population expressed sympathy with leprosy patients while 16% also wanted to help them. However, a small number (5%) harbored great aversion (Figure 6). Sadly, majority of them (70%) were against marriage even with a treated case or in the family which had any leprosy patient (Figure 6). However, a large number of them (79%) were against leprosy being a ground for divorce while the remaining (21%) were undecided (Figure 7).

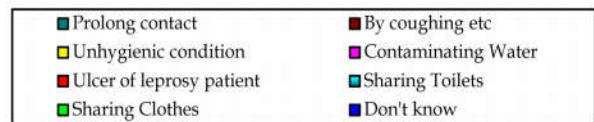
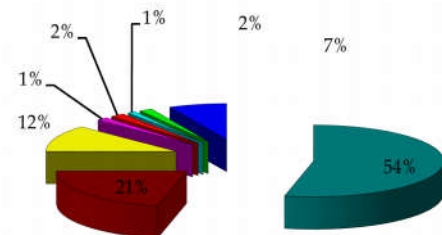


Fig. 3: Knowledge of transmission

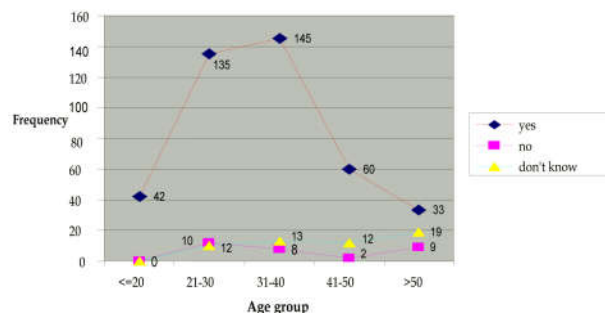


Fig. 4: Knowledge about treatment

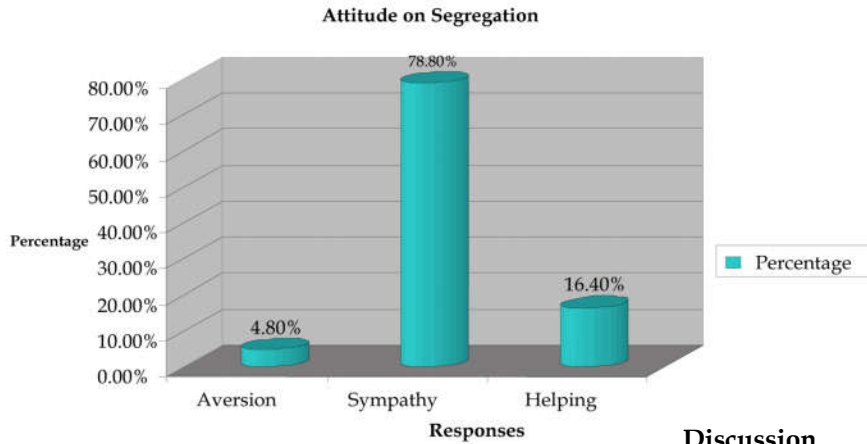


Fig. 5: Attitude on segregation

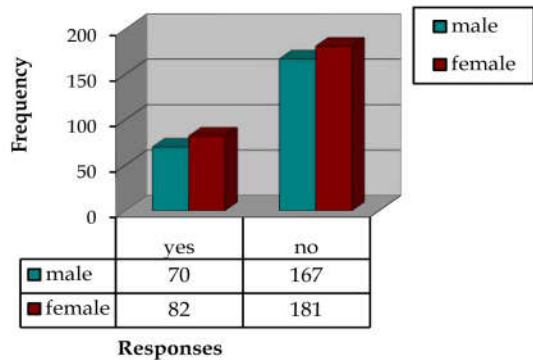


Fig. 6: Attitude for marriage with treated leprosy patient

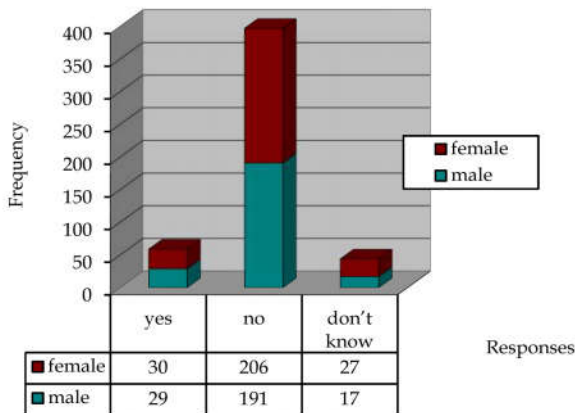


Fig. 7: Attitude on divorce

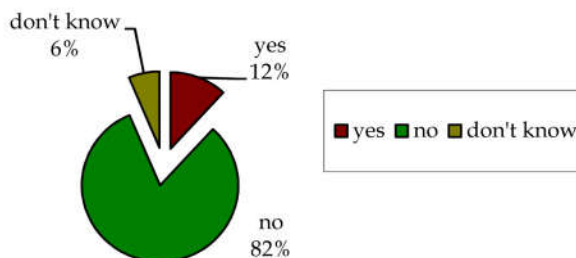


Fig. 8: Attitude on employment

It was encouraging to note that majority of the subject population (73%) was willing to have tea/ food with leprosy patients or even shaking hands with them. However, majority of them (83%) were against employing them (Figure 8). Forty seven percent of the people were in favor of buying things from leprosy patient's shop while 46% were in against it.

Discussion

The manner in which a community perceives a disease determines its health-seeking behavior. We know that a given disease can have different meanings in different cultures [13]. Consequently, different individuals from different socio-cultural background may interpret the same disease i.e. leprosy in a different manner.

Rural community looks at leprosy as an incurable and disabling disease. It Majority of them, also feel that it is a form of punishment for wrong actions or deeds committed sometime in the past or present life; which in turn leads to the stigma and discrimination [14]. Needless to say that the disease also causes immense physical, socio-economic and psychological distress to the patient as well as his family. Unfortunately the root cause of the stigma associated with leprosy in our community is inadequate knowledge about the disease [15].

In present study 41% of the subject population was aware of infective etiology of the disease while 33% felt it was hereditary. Awareness level observed in our study about the cause of disease was found to be much higher as compared to the findings of Sukhbir Singh et al (2012), who found in their study only 15.2% subjects were aware of its infective etiology [16]. However, Myint et al, (1992) in their study in Myanmar reported a much higher awareness level (85.7 - 92.5%) [17].

In present study, out of those who thought the cause of leprosy was an infection, 54.0% agreed that it was transmitted due to prolonged contact. However, Tesema AA and Beriso M (2015) [14] in their study in Ethiopia observed that most of the participants had poor knowledge about transmission of leprosy as nearly 35.47% of them believed that leprosy is transmitted by sexual contact with leprosy patients while 12.84% believed that it is transmitted by air or flatus of the leprosy patients. Sukhbir Singh et al

(2012) [16], in their study observed that 46% of the respondents believed skin-to-skin contact with an infectious person to be a possible cause of transmission of leprosy; while breach of taboos and intake of wrong food were also regarded as other possible causes. Mankar et al (2011) in their study observed that 84.31% of patients with leprosy did not know the exact mode of transmission [18].

In present study 83.0% of respondents felt that the disease was curable (Table 5). More than 80% subjects were also aware that its treatment is available in government hospitals without any charges. Tesema AA and Beriso M (2015) [14] in their study also brought out that 92.9% of respondents felt that leprosy can be treated by pharmaceutical drugs, followed by medicinal herbs (5.41%).

In present study majority of the subjects (68.6 %) felt that leprosy patients need not be segregated. Sixty percent of them were also willing to permit their children to play with leprosy patient. A large number of respondents (79%) were found to be sympathetic to leprosy patients. Further, majority of them (73%) were willing to have tea/ food or even shake hands with leprosy patients. However, a large section of respondents (83%) was against employing leprosy patients, even after their treatment.

However, Tesema AA and Beriso M (2015) [14] in their study reported a very unfavorable attitude among their respondents. About 36.15% of the study subjects were unwilling to sit with leprosy patients in public conveyance, 66.55% of them felt that they would avoid leprosy patients in different activities, 85.81% were unwilling to share food from the same plate with leprosy patients, 48.99% expressed reservations to marry anyone in a family with history of leprosy, 55.4% said that they would not work in the same place with leprosy patients, 32.77% said that they would not allow their children to play with children of leprosy patients, 59.8% said that they would feel ashamed if they had leprosy patient in their family but majority of them 97.97% said that they would support the treatment if family member was affected by leprosy.

Nighat Nisar et al (2007) [19] in their study in Pakistan observed that 97% of the respondents were sympathetic to leprosy patients, while 2.7% were afraid of them and only 0.3% had normal feelings. The researchers also observed that 98% subjects were willing to shake hand with leprosy patient while 2% were unwilling. Nighat Nisar et al further observed that 100% respondents were unwilling to marry even a treated leprosy patient. Fourteen percent subjects also said that they would panic if a leprosy patient approaches them while 32% said that they

could not imagine working with a leper.

Conclusion

The social stigma in leprosy is a social fear resulting in a guilt complex in the patient and discrimination by the society. Present study has revealed satisfactory levels of knowledge about the disease and positive attitude and practice among the study population. However, continued health education and behavioral changes are still the only tool to further increase awareness regarding leprosy to get rid of misconception about the medical causes and related stigma in the community. Needless to say, that with current diagnostic technology, existing understanding of disease epidemiology and the availability of low cost drug regimens; goal to eradicate leprosy from India by 2019, is achievable.

References

1. G Saha , NK Mandal and RN Dutta. Current Perceptions and Practices (KAP) about Leprosy among Leprosy Patients: A Comparative Study between High Prevalent & Low Prevalent Districts of West Bengal . Indian J Lepr. 2015; 87:1-16.
2. L. A. EL HASSAN, E. A. G. KHALIL & A. M. EL-HASSAN. Socio-cultural aspects of leprosy among the Masalit and Hawsa tribes in the Sudan. Lepr Rev 2002; 73:20-28.
1. Hassan LAEL, Khalil EAG and Hassan AMEL. Socio-cultural aspects of leprosy among the Masalit and Hawsa tribes in the Sudan. Lepr. Rev., 2002; 73: 20-28.
2. DHde, Stigter, Lde Geus and ML Heynders. Leprosy: between acceptance and segregation. Community behaviour towards persons affected by leprosy in eastern Nepal. Lepr. Rev., 2000; 71: 492-498.
3. Arole S, Premkumar P, Arole R, Maury M, Saunderson P. Social Stigma: a comparative qualitative study of integrated and vertical care approaches to leprosy. Lepr Rev 2002; 73:186-196.
4. WHO. <http://www.who.int/mediacentre/factsheets/fs101/en/>. Accessed on 12 Dec 2016.
5. Editorial World Leprosy Day 2015: Renewing commitment for a leprosy free world. Indian J Med Res 2015 Jan; 141:1-4.
6. Chatterjee RN, Nandi DN, Banerjee et al. The social and psychological correlates of leprosy. Indian J Psychiatry 1989; 31:315-318.
7. Damle PS. Rehabilitation of leprosy patients in an industrial set up. Lepr India 1972; 44:116-118.

8. Davey TF. Psychological rehabilitation in leprosy. *Lepr India* 1972; 44:113-116.
 11. Kumar B. World Leprosy Day 2015: Renewing commitment for a leprosy free world! *The Indian Journal of Medical Research*. 2015; 141(1):1-4.
 12. Nils Kaehler , Bipin Adhikar , Shristi Raut , Sujan Babu Marahatta , Robert Sedgwick Chapman. Perceived Stigma towards Leprosy among Community Members Living Close to Nonsomboon Leprosy Colony in Thailand. *PLOS ONE*. 2015 Jun 5; 1-11. DOI:10.1371/journal.pone.0129086
 13. Abubakar A, Van Baar A, Fischer R, Bomu G, Gona JK, Newton CR. Socio-Cultural Determinants of Health-Seeking Behaviour on the Kenyan Coast: A Qualitative Study. Jenkins N, ed. *PLOS ONE*. 2013; 8(11):e71998. doi:10.1371/journal.pone.0071998.
 14. Tesema AA, Beriso M. Assessment of Knowledge and Attitude of Community on Leprosy Patients in Kuyera Town, West Arsi Zone, Oromia Region Southeast Ethiopia. *Hereditary Genet* 2015; 5:156. doi:10.4172/2161-1041.1000156.
 15. C.P. Mishra and M.K.Gupta. Editorial: Leprosy and Stigma, *Indian J. Prev. Soc. Med.* 2010; 41(1&2).
 16. SINGH, Sukhbir et al. Knowledge, Beliefs and Perception of Leprosy. *Disability, CBR & Inclusive Development*, [S.l.], 2013 Feb; 23(4): 67-75. ISSN 2211-5242. doi:http://dx.doi.org/10.5463/dcid.v23i4.179.
 17. Myint T, Thet AT, Htoon MT, Win M. A comparative KAP study of leprosy patients and members of the community in Hlaing and Laung-Lon townships. *Ind J Lepr*; 1992; 64:313-324. PMID:1431320.
 18. Mankar MJ, Joshi SM, Velankar DH, Mhatre RK, Nalgundwar AN. A comparative study of the quality of life, knowledge, attitude and belief about leprosy disease among leprosy patients and community members in Shantivan Leprosy Rehabilitation Centre, Nere, Maharashtra, India. *Glob Infect Dis*; 2011; 3(4): 378-382. http://dx.doi.org/10.4103/0974-777X.91063. PMID:22224003 PMCID:3249995.
 19. Nighat Nisar, Iftikhar Ahmed Khan, Majid Hafeez Qadri, Pir Ghulam Nabi Shah. Knowledge attitude and practices about leprosy in a fishing community in karachi Pakistan. *Pak J Med Sci* 2007 Oct-Dec (Part-II); 23(6):936-940.
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