Original Article

ASSESSMENT OF KNOWLEDGE AND AWARENESS ABOUT LEPROSY AMONG MEDICAL COLLEGE STUDENTS IN MEWAT REGION OF HARYANA

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ABSTRACT

Introduction -Leprosy is a chronic infectious disease which still remains a serious public health problem due to its ability to cause disability. The prevention of leprosy ultimately lies in the early diagnosis and treatment of the individuals having leprosy. Changing leprosy scenario has led to requirement of leprosy education. However the knowledge of medical college students on leprosy remains unknown. **Aim**: To assess the post-sensitization knowledge and awareness of medical students after state leprosy sensitization program. **Materials and methods**: A questionnaire based, cross sectional study was conducted among 107 medical students of different years starting from 2nd year and onwards in the month of July 2017 after state leprosy sensitization program. **Results:** Among the medical students 70 (75%) were male students and 37(25%) were female students coming from different years of their admission in medical college .Regarding the basic knowledge of leprosy 100 % of 3nd year and final year students were having knowledge about the cause of leprosy and 100% of final year and 3rd year medical students know about other name of Leprosy (Hansen,s disease) respectively.100% of final year ,3rd year and 2nd year medical students had knowledge about multidrug therapy (MDT) in in-depth knowledge of leprosy respectively. Regarding the virulence of bacilli 87%, 60% and 63% of final, 3rd and 2nd year medical students had apt knowledge respectively. **Conclusion-**These observations suggest that the basic and in-depth knowledge of medical students about cause, types, prevention and treatment etc. of leprosy shows increasing trend owing to the part of their curriculum. However there is still a need to organize sensitization programs at regular intervals to impart basic and in-depth knowledge to new medical students, as well as to update the knowledge of those who already had such sensitization programs.

Keywords: Awareness; Knowledge; Leprosy; Sensitization.

INTRODUCTION

Leprosy is one of the oldest chronic infectious diseases, and permanent and progressive disability and psychological sequelae are consequences of untreated leprosy. Thus leprosy often results in intense stigma and social discrimination of patients and their families [1]. Leprosy is still prevalent in certain parts of the world, particularly India and South America [2]. Leprosy has been known to the Indians since the Vedic period. However, a clear diagnostic criterion was established only about half a century back [3].

However, in year 2012-13, at a prevalence rate of 0.73 per 10,000; the total number of registered leprosy cases in India was 0.92 lac. Annual New Case Detection Rate (ANCDR) stood at 10.78 per 10,000 population. Significant amount of disability was detected among the new Leprosy patients [4]. It is believed that proper control and elimination of leprosy is possible only by considering long term planning and control of leprosy as a chronic disease and providing sustainable care for leprosy patients [5]. Leprosy is also synonymous with social stigma due to reasons like mystery around its transmission, lack of knowledge on available treatment, deformities and religious views [6]. Prejudices and lack of knowledge about leprosy exist even among medical practitioners and healthcare professionals around the world [3].

In Haryana state the prevalence rate is 0.23per10,000population and annual new case detection ratio is 1.57 [7] in view of the changing Leprosy scenario worldwide as well as an arising debate on revision of current leprosy program to encompass preventive aspects for effective elimination; a change in teaching of leprosy has been felt [8]. This also holds good for the medical curriculum [3].

MATERIAL AND METHODS

Study design: Descriptive, cross-sectional survey.

Ethics approval: Study was approved by institutional

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ethics committee and informed consent was taken from the participants.

Study location: Study was conducted among undergraduate medical students of different years in Mewat region of India.

Inclusion criteria: Reason for choosing students as the study group was their susceptibility to change in awareness and knowledge due to which the studies conducted in adult clinicians may not necessarily confirm to the awareness and knowledge of the students.

Exclusion criteria: Students already attended such leprosy sensitization earlier.

Sample size: 107 medical students

Methodology: The sensitization program on leprosy was done among the medical students of various years in form of lectures and demonstration. The questionnaire was distributed among medical students after sensitization program in the form of lectures and demonstration for assessment of their knowledge and awareness. A semi structured self-administered questionnaire was prepared by the Dermatology department and other faculties involved in the study. The questionnaire was discussed, (according to Guidelines by Beaton et al) among the faculty of Department of Biochemistry and Skin, SHKM Medical College NUH, Haryana, and it was also shared with the zonal officers of the district dealing with leprosy. The schedule was then pre-tested in the field to rule out operational constraints. The questionnaire was prepared in English in order to maintain consistency as well as in confirmation with the medium of instruction for medical students in India. The questions were based on studies conducted in other health professionals under similar setting. The language of the questions was modified according to Indian context and some questions were added to assess the knowledge and awareness regarding medical aspects of the disease. The questionnaire was translated in Hindi followed by a reverse translation according to Guidelines by Beaton et al.,[9].

RESULTS

One hundred ten students participated in post- sensitization study and 107 completed the questionnaire on knowledge and awareness about leprosy. Approximately 75% of participants were males (n=70) and 25% (n=37) were females. 41 (38%) students were of 2nd year, 43(40%) of 3rd year and 23(22%) from final year respectively. [Table-1]

The knowledge of medical students was assessed by two types of questions in questionnaire. Those comprise the basic knowledge awareness, were of five types viz Cause of Leprosy, features of leprosy,other name of leprosy,staining of bacilli and mode of spread of bacteria.

Table 1. Distribution of medical students according to demographic characteristics

Variable	Frequency (n)	%
Gender		
Male	70	75
female	37	25
Year of medical training		
IInd year	41	38
III rd year	43	40
Final year	23	22

In-depth leprosy knowledge awareness had questions related to MDT, Diagnosis, reaction, pathology and virulence. [Table-2,3]

DISCUSSION

This study is the first to assess the knowledge and awareness of medical students about Leprosy including various pathological, clinical and social aspects of the disease in Mewat region of Haryana. In the present study 75% male and 25% female students participated in the study conducted in SHKM GMC, Mewat, on awareness about leprosy among medical students of different years which revealed a diverse yet good knowledge and awareness towards leprosy.

In a study from Hyderabad city, conducted in Government Health Services dispensaries in Hyderabad in order to assess knowledge and attitude and some operational parameters, medical officers consistently demonstrated higher knowledge about leprosy, followed by nursing staff and paramedical workers. More than half of the study subjects did not have specific training in leprosy [2].

An investigation into the attitudes, beliefs and behavior

Table 2. Basic knowledge and awareness of medical students with regard to leprosy

Basic Knowledge Awareness	Categories of Medical students					
	Second year n= 41		Third Year n= 43		Final Year n= 23	
	No.	%	No.	%	No.	%
Cause of Leprosy	41	100	43	100	23	100
Features of Leprosy	41	100	43	100	22	96
Other Name of Leprosy	41	100	43	100	23	100
Staining of bacilli	41	100	43	100	23	100
Mode of Spread of bacteria	35	85	41	95	10	43

Table 3. In depth knowledge and awareness of medical students with regard to leprosy

In-depth Knowledge Awareness	Categories of Medical students					
	Second year n= 41		Third Year n= 43		Final Year n= 23	
	No.	%	No.	%	No.	%
MDT of Leprosy	41	100	43	100	23	100
Diagnosis of Leprosy	29	71	42	98	23	100
Reaction in Leprosy	34	83	25	58	13	57
Pathology of Leprosy	41	100	31	72	23	100
Type of bacilli	26	63	26	60	20	87

of 730 primary healthcare (PHC) workers with regard to MDT was carried out in Yangzhou and Dongtai districts of China, which revealed that only half of the PHC workers had a basic knowledge of MDT and a desire to participate in MDT implementation [10].

Final year medical students consistently demonstrated higher knowledge about leprosy in comparison with medical students of 2nd and 3rd year. This study was undertaken as part of sensitization program by govt. of Haryana to medical students, to assess the level of knowledge and awareness about leprosy among medical students of tertiary health care centre.

The data in this study include basic knowledge and in-depth knowledge and awareness about leprosy among medical students in SHKM GMC, Mewat.

A study was undertaken as part of operational research by the Ministry of Health and Family Welfare, Government of India, to assess the level of integration of leprosy services into general healthcare system in 24 low or moderately endemic states/ union territories [11]. A study conducted by the Regional Leprosy Training and Research Institute, Lalpur, Raipur, Chhattisgarh, India, revealed that 45% of medical officers, 71% of health supervisors and 75% of multipurpose workers were trained in leprosy[12].

A large number of medical students had correct basic knowledge about cause, features, other name and mode of spread of leprosy and about staining of lepra bacilli. The cause of leprosy was known to 100 % of second year, third year & final year medical students. The clinical features of leprosy were known to 100 % second year and third year medical students& 96% of final year medical students.As far as other name of leprosy is concerned, 100% of second year, third year and final year students were correctly knowing it.

The staining of lepra bacilli was correctly known to 100% of final year, third year and 2ndyear medical students. The different routes of mode of spread of leprosy were rightly answered by 43% of final year and 85% of 2nd year medical students whereas 95% of 3rd year medical students have correct knowledge about it.

The knowledge and attitude of health workers in north-western Botswana with regard to leprosy were determined by interviewing 99 health workers from various health institutions. Knowledge on causation of leprosy was generally lacking. Although majority of respondents knew that the disease is curable, less than half knew the correct duration of treatment [13].

A large number of medical students had correct in-depth knowledge about treatment, diagnosis, reaction and pathology of leprosy and virulence of lepra bacilli. Regarding multi drug treatment of leprosy 100% of final year, third year and 2nd year medical students were totally aware about it. Most of the medical students were correctly knowing about diagnosis of leprosy viz 100% final year,98 % third year and 71 % 2nd year medical students.

Inadequate knowledge about reaction in leprosy was observed among all years of medical students- only57% final year, 58% 3rd year and 83 % 2nd year medical students were correctly knowing about leprosy reaction.

Knowledge about pathology of leprosy was found to be adequate in 100% 2nd year, 72% 3rd year and 100% final year medical students. The awareness about virulence of lepra bacilli was not adequate among medical students as only 63% second year and 60 % 3rd year medical students were having knowledge about it . On the other hand 87% of final year medical students in SHKM GMC were having accurate information on lepra bacilli virulence.

CONCLUSION

The knowledge and awareness of Indian medical students in Mewat region about leprosy is fairly good.

Message: Leprosy elimination has been achieved however, the disease has a long incubation period and need is felt for continued support from government as well as non-governmental agencies to achieve zero incidence rates, so there is need for well-organized, specifically targeted educational programs in leprosy for medical trainees and their integration in national health program.

Limitations- Pre-sensitization data was not collected from the participants.

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