



Presensitization 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 presensitization knowledge and awareness of medical students before state leprosy sensitization program.*

Materials and Methods: *A questionnaire based, cross sectional study was conducted among 135 medical students of different years starting from 2nd year and onwards in the month of July 2017 before state leprosy sensitization program .*

Results: *Among the medical students 90(67%) were male students and 45(33%) were female students coming from different years of their admission in medical college .Regarding the basic knowledge of leprosy 100 % of 3rd year and final year students were having knowledge about the cause of leprosy and 100% and 78% of final year and 3rd year medical students know about other name of Leprosy (Hansen,s disease) respectively.100% ,92% and 79% 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 77%,43% and 44% 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.*

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 0.23 per 10,000 population 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

A cross-sectional survey was conducted among undergraduate medical students of different years in Mewat region of India. 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.

A semi structured self administered questionnaire was prepared by the dermatology department and other faculties involved in the study. The questionnaire was discussed 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., for cross cultural adaptation of self report measures^[9].

Results

One hundred and fifty students participated in study and 135 completed the questionnaire. Approximately 67% of participants were males (n=90) and 33% (n=45) were females. 26 (19%) students were of 2nd year, 37(28%) of 3rd year and 72(53%) from final year respectively. [Table-1]

Table -1 Distribution of medical students according to demographic characteristics

Variable	Frequency (n)	%age
Gender		
Male	90	67
Female	45	33
Year of medical training		
II nd year	26	19
III rd year	37	28
Final year	72	53

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.

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

Table-2 Basic Knowledge and awareness of medical students with regard to leprosy

Basic Knowledge Awareness	Categories of Medical students					
	Second year n= 72		Third Year n= 37		Final Year n= 26	
	No.	%	No.	%	No.	%
Cause of Leprosy	66	92	37	100	26	100
Features of Leprosy	53	74	25	68	20	77
Other Name of Leprosy	63	88	29	78	26	100
Staining of bacilli	60	83	27	73	24	92
Mode of Spread of bacteria	43	60	30	81	15	58

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= 72		Third Year n= 37		Final Year n= 26	
	No.	%	No.	%	No.	%
MDT of Leprosy	57	79	34	92	26	100
Diagnosis of Leprosy	65	90	35	95	25	96
Reaction in Leprosy	36	50	13	35	10	38
Pathology of Leprosy	35	49	21	57	24	92
Type of bacilli	32	44	16	43	20	77

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 67% male and 33% female students participated in the study conducted in SHKM GMC, Mewat, on awareness about leprosy among medical students of different years before state sensitization program which revealed a diverse yet good knowledge and awareness towards leprosy.

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 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 third year & final year students while 92% of second year medical students were correctly knowing the cause of leprosy. The clinical features of leprosy were known to 74 % second year, 68 % third year & 77% of final year medical students. As far as other name of leprosy is concerned, 100% of final year student were knowing it while only 88% of second year and 78% of third year having correct knowledge about it.

The staining of lepra bacilli was correctly known to 92% of final year, 73% third year and 83% of 2nd year medical students. The different routes of mode of spread of leprosy were rightly answered by 58% of final year and 60% of 2nd year medical students. Whereas 81% of 3rd year medical students have correct knowledge about leprosy.

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 medical students were totally aware about it whereas 92% third year and 79% 2nd year medical students were having correct knowledge about leprosy treatment. Most of the medical students were correctly knowing about diagnosis of leprosy viz 96% final year, 95 % third year and 90 % 2nd year medical students.

Inadequate knowledge about reaction in leprosy was observed among all years of medical students- only 38% final year, 35% 3rd year and 50 % 2nd year medical students were correctly knowing about leprosy reaction.

Knowledge about pathology of leprosy was found to be in increasing trend among Mewat medical students viz 49% 2nd year, 57% 3rd year and 92% final year medical students. The awareness about virulence of lepra bacilli was not adequate among medical students as only 44% 2nd year and 43 % 3rd year medical students were having knowledge about it. On the other hand 77% of final year medical students in SHKM GMC were having accurate information on lepra bacilli virulence.

The district hospital, PHCs and CHCs under Govt. of Haryana frequently undergo such sensitization program on leprosy. The training and awareness about leprosy among medical students was done first time in tertiary level health care centre i.e SHKM GMC Mewat.

Conclusion

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. WHO suggests that effective leprosy control requires an integration of leprosy services with other health services.

The knowledge and awareness of Indian medical students about leprosy is fairly good. Still, there is need for well-organized, specifically targeted educational programs in leprosy for medical trainees and their integration in national health program.

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