

Original Research Article

Knowledge on pulmonary tuberculosis among Dalit community of Bharatpokhari VDC of Kaski district, Nepal

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ABSTRACT

Background: Tuberculosis still remains public health problems in Nepal. Previous studies among marginalized ethnic groups suggest that being poor increases the risk of tuberculosis. Dalit communities are those communities in Nepal, backward in social, economic and educational fields and are not excluded from the risk of tuberculosis. The objective of the study was to determine the level of knowledge on pulmonary tuberculosis among Dalit community of Bharatpokhari VDC of Kaski.

Methods: Community based cross-sectional study was conducted to determine the level of knowledge on pulmonary tuberculosis among Dalit community of Bharatpokhari VDC, Kaski from January 2010 to July 2010. Samples were taken randomly from different wards of the VDC. Data was collected by using pretested structured questionnaire by home to home visit of age 15-49 years. Data was collected from 15th January 2010 to 15th May 2010.

Results: Study revealed that 29% respondents had adequate level of knowledge on pulmonary tuberculosis. The factor, education status was associated with level of knowledge on pulmonary tuberculosis on bivariate analysis ($p=0.005$).

Conclusions: More than two third of the respondents had inadequate level of knowledge on pulmonary tuberculosis. Thus, recommends for the awareness programme on pulmonary tuberculosis. The education status and level of knowledge on pulmonary tuberculosis was significantly associated on bivariate analysis, and recommends for improvement in the education status of dalit community would be beneficial.

Keywords: Knowledge, Pulmonary tuberculosis, Dalit community, Nepal

INTRODUCTION

Tuberculosis is one of the top ten cause of death in worldwide which is responsible for causing ill-health for 10 million people each year.¹ The South East Asia region contribute one-third of the world's burden of TB and there is about 4.9 million prevalent cases.² In Nepal, tuberculosis is responsible for ill health among thousands of people each year and still remains as sixth leading cause of death.³

Tuberculosis is responsible for 3.5% of the total deaths in Nepal.⁴ Research in marginalized ethnic groups suggests that being poor increases the risk of tuberculosis.⁵ Dalit comprise 13.2% of the total population of Nepal and are those communities, backward in social, economic and educational fields.⁶ The objective of this study was to determine the level of knowledge on pulmonary tuberculosis among dalit community of Bharatpokhari VDC of Kaski.

METHODS

Community based cross-sectional study was designed for the duration of six months from January 2010 to July 2010 to determine the level of knowledge on pulmonary tuberculosis among Dalit community of Bharatpokhari VDC, of Kaski district. Dalit male and female age 15-49 years were included in the study and respondents those who refuses to give informed consent were excluded from the study. Sample size was calculated by taking the prevalence of 50% percent, where 95% confidence interval, 10% permissible error and 10% non-response rate. Sample size was calculated by using the formula $n = \frac{z^2pq}{d^2}$ where, Z=1.96 (the Z score value while confident interval is 95%), d=10 percent of prevalence and with 10% non-response rate, the sample size was come to be 106 therefore, total 110 samples were taken for the study. Kaski was chosen purposively, Bharat pokhari VDC was chosen randomly as a selected area. Samples were taken randomly form different wards of the Bharatpokhari VDC. To select the first sample form the ward, spin the pen technique was carried out in the main chowk of the ward. From the direction, shown by the pen, every person fulfilling the illegibility criteria was taken as a sample unit and hence, samples were taken from different wards until the desired sample size was completed, Data was collected by face to face interview method with the help of pretested structured questionnaire. Structured questionnaire was maintained through extensive literature review. The questionnaire developed in English was translated into Nepali Language by two experts and back to English language with the help of third expert. Pretesting of questionnaires was done by taking 11 study subjects (10% of total sample of the study) in Rupakot VDC. Cronbach's alpha of knowledge on pulmonary tuberculosis was found to be 0.78. Data was checked and edited in the same day after completion of the interview with every respondent. Data was coded and entered into excel sheet and statistical package for social science (SPSS) 16 version was used for data analysis. In univariate analysis, frequency and percentage were calculated and in bivariate analysis, chi-square test was used to assess the relationship between categorical independent and depended variables. During the study, verbal consent was taken from the respondents. Throughout the study, respect was given to the culture of the Dalit community and no harm was provided. To determine the level of knowledge on pulmonary tuberculosis, question was asked on heard about tuberculosis, type of disease, route of transmission, symptoms of pulmonary tuberculosis, heard about DOTS, knowledge on time duration of treatment of pulmonary tuberculosis, knowledge on free availability of tuberculosis medicine in the government health facility, and preventive measures of tuberculosis. Total score of knowledge on pulmonary tuberculosis was 17. Respondent scoring >8.5 score was taken as adequate knowledge and respondents scoring <8.5 score was taken as inadequate knowledge.

RESULTS

The minimum age of the respondents was fifteen years and maximum age was 49 years. Thirty one percent of the respondents were male and 69% were female. Almost 43% respondents were illiterate and 57.3 % were literate (Table1).

Table 1: Socio-demographic characteristics of the respondents (n=110).

Characteristics	Categories	Frequency	(%)
Age of the respondents (year)	15-19	17	15.5
	20-24	17	15.5
	25-29	19	17.3
	30-34	12	10.9
	35-39	15	13.6
	40-44	16	14.5
Sex	45-49	14	12.7
	Male	34	31.0
	Female	76	69.0
Education status	Illiterate	47	42.7
	Literate	63	57.3

Hundred percent respondents had heard about tuberculosis. Almost 43% of the respondents replied radio as a source of information on pulmonary tuberculosis, whereas 40% from friends, 36.3% from television and 31.8% replied neighbor as a source of information on pulmonary tuberculosis (Table 2).

Table 2: Heard about and source of information on pulmonary tuberculosis (n=110).

Characteristics	Categories	Frequency	(%)
Heard about pulmonary tuberculosis		110	100.0
Source of information on pulmonary tuberculosis*	Radio	47	42.7
	Friend	44	40.0
	Television	40	36.3
	Neighbour	35	31.8

*=Multiple response.

Majority (71%) of the respondents had inadequate level of knowledge on pulmonary tuberculosis (Table 3).

Education status was associated with knowledge on pulmonary tuberculosis (Table 4).

Table 3: Level of knowledge on pulmonary tuberculosis (n=110).

Level of knowledge	Frequency	Percentage (%)
Inadequate	78	71
Adequate	32	29
Total	110	100

Table 4: Educational status and level of knowledge on PTB (n=110).

Educational status	Level of knowledge on PTB		
	Inadequate	Adequate	Total
Literate	38 (60.4)	25 (39.6)	63
Illiterate	39 (83.9)	8 (16.1)	47
Total	77	33	110

$\chi^2 = DF=1$, CI=95%, P=0.005.

DISCUSSION

Our study revealed that, 71% respondents had inadequate level of knowledge on pulmonary tuberculosis which was similar to the study on knowledge and awareness of tuberculosis among Roma population, the economically backward population, where participants were aware only in the some modes of transmission.⁵ And this study is also consistent with the study among, pastoralist community, community of Gambella region and Somali community, where participants had higher knowledge gap about tuberculosis.⁷⁻⁹ But, our study contrast with the study among pastoral communities, Ethiopia.¹⁰ and study among population of Mamandur in Tami where majority of the participants had adequate knowledge on pulmonary tuberculosis.¹¹ Education status was associated with the level of knowledge on pulmonary tuberculosis which was consistent with the study among rural community, Edo state, Nigeria and Ethiopia and Karachi.¹²⁻¹⁴ contrast to the study on factors affecting knowledge level of tuberculosis patients in Rajshahi City, Bangladesh.¹⁵

CONCLUSION

Less than one third of the respondents had adequate level of knowledge on pulmonary tuberculosis. Thus, recommends for the awareness programme on pulmonary tuberculosis. The education status and level of knowledge on pulmonary tuberculosis was significantly associated in bivariate analysis. Thus, recommends for improvement in the education status and awareness programme more focusing on the illiterate people of Dalit community would be beneficial.

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