TUBERCULOSIS RELATED KNOWLEDGE, ATTITUDE AND PRACTICES AMONG PARTICIPANTS OF DOTS CENTRE IN KANCHANPUR DISTRICT

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The magnitude of tuberculosis problem is considerable. However, the attitude of general public towards disease and patient is largely negative. Perception and knowledge of the individuals on this topic is important as they directly deal with patients and relatives, and it is also important for disseminating health information. A negative attitude is known as hindrance to provide quality service to the persons suffering from disease and physically ill. A cross-sectional study was conducted among 190 participants of DOTS center during February 2002 to March 2003 with the help of a structured set of questionnaire in Kanchanpur district of Far Western terai of Nepal to assess the knowledge, attitude and practices regarding tuberculosis. The studies revealed that maximum 185 (97.4%) were familiar with tuberculosis and majority of them knew at least one manifestation of the disease, which is very important. However, majority of participants 59 (31%) did not know about the risk factor of the disease, benefits from protective devices 186 (97.9%), and infection of the disease 60 (31.6%). More than 93% of participants responded that patients should be taken to the medical doctor if one contracted the disease. Smoking was the pre-disposing factor of the tuberculosis, where 85 (44.7%) were current smokers. Among tuberculosis patients current smoker 20 (10.5%) were less than those of former smokers 35 (18.4%).

Key words: *Mycobacterium,* tuberculosis, knowledge, attitude, practices, Kanchanpur district.

INDTRODUCTION

Robert Koach first described the *Mycobacterium tuberculosis* as a causative agent of human tuberculosis in 1882. During that period tuberculosis (TB) caused 1/7 million of death in Europe (WHO, 1998). At present it is among the top ten cause of global mortality. About 20% of world's population is suffering from TB and 8 million people are victimized each year. It is still remaining a major health problem in most countries of the world including Nepal (Borgdorff *et al.* 2002). In recognition of this problem, in April 1993, World Health Organization (WHO) declared that TB situation has become global health emergency.

In Nepal, TB is an immense problem causing great suffering and death. About 60% of adults

and 45% of general population have been infected with the disease. Every year 44,000 people develop active TB of whom 20,000 have infectious disease and annual death is 8,000-11,000 (NTC, 1999; Bam, 2003).

Lack of knowledge about TB infection and disease in the community may play an important role in delayed diagnosis and treatment of the disease (Pirkis *et al.* 1996; Lawn *et al.* 1998; Wandwalo and Morkve, 2000). Knowledge is underlying perception and patterns of tuberculosis might be viewed as constituting a global public good (Willliam, 2001). A community without such understanding will have a comprised ability to avoid an outbreak of the disease. Furthermore, late diagnosis incurs high morbidity and mortality (Van den Broek *et al.* 1998). To design socially acceptable and culturally compatible control strategies, researchers and health personnel must be familiar with the people's perception, knowledge and practices in relation to TB. This study examines in perception, attitude and practices that are related to *Mycobacterium tuberculosis* in Kanchanpur district of Far-Western Nepal.

MATERIALS AND METHODS

Kanchanpur district is composed of 19 Village Development Committees (VDCs) and Mahendranagar municipality. According to data of 2001 population census a total of 3, 77, 899 (50.8% males and 49.2% females) are living in entire of the district. Health care delivery system has undergone in Zonal Hospital and the District Public Health Office (DPHO). DPHO has been implementing Directly Observed Treatment for Short-Course (DOTS) program under the National Tuberculosis Programme (NTP) as per national guidelines.

A cross-sectional study was conducted in the DOTS-main clinic during February 2002 to March 2003 in total of 190 attended participants for the diagnosis and treatment of TB. Persons with respiratory tract symptoms seen consecutively at Zonal Hospital by doctors were referred to DOTS center for routine laboratory sputum microscopy and interviewed before going to smear microscopy. They were categorized as TB suspect. The persons who were in their regular course of treatment: new smear positive cases and those who had past history of TB (relapse, failure and return after default) were categorized as TB patient.

Structured and semi-structured questionnaire in Nepali language shaped to record the knowledge, attitude and practices were administered on participants, and they were informed about the study procedure before filling-up questionnaire.

RESULTS

Table 1 shows participants' knowledge of tuberculosis. A high proportion of participants had previous knowledge of the disease and all patients during time of interview responded with knowledge of the disease. A high number of patients (36.3%) had previous knowledge of the disease. Nearly all the positive patients 70 (36.8%), the relapse 40 (21.1%), failure 5 (2.6%) and return after default 24 (12.6%) during interview knew about the disease.

Participants were asked about the sign and symptoms of disease. A majority, 122 (64.2%) had cough more than 3 weeks, second highest response 25 (13.1%) were lack of knowledge about sign and symptoms and 14 (7.4%) responded shortness of breath. The result shows that majority of them knew at least one of the sign of disease.

Regarding the risk factor for disease transmission, of total, 63 (33.2%) participants viewed for sleeping with TB patients and 59 (31%) did not know about any of risk factor for the disease transmission. A majority 185 (97.4%) claimed that they knew the disease but were not aware toward the risk factors.

Participants were evaluated for knowledge regarding type of TB. Of total, 119 (62.6%) did not know about type of TB. Fifty four (28.4%) responded for its pulmonary type and 17 (8.9%) responded extra-pulmonary type of tuberculosis. Knowledge about mode of transmission was also assessed. A majority 72 (37.9%) did not know about any mode of infection of TB.

Table 1: Knowledge of Tuberculosis

Particulars	Participants N=190 (%)	TB Patients N=70 (%)
Knowledge of TB		
Yes	185 (97.4)	69 (36.3)
No	5 (2.6)	1 (0.5)
Knowing sign and symptoms		
Cough > 3 weeks	122 (64.2)	38(20)
Shortness of breath	14 (7.4)	9 (4.7)
Chest pain	10(5.3)	6(3.2)
Haemoptysis	7 (3.7)	8 (4.2)
Fever	12(6.3)	7(3.7)
Do not know	25 (13.1)	2(1.1)
Knowing TB risk factors		
Sleeping with TB patients	63 (33.2)	28 (14.7)
Smoking and drinking	23 (12.1)	11(5.8)
Homeless	8(4.2)	4(2.1)
Poor ventilated houses	33 (17.4)	14 (7.4)
HIV infected patients	4 (2.1)	5 (2.6)
Do not know	59(31)	8(4.2)
Knowing type of TB		
Pulmonary	54 (28.4)	37 (19.4)
Extra-pulmonary	17 (8.9)	19 (10)
Do not know	119 (62.6)	14(7.4)
Knowing TB infection		
Sleep with TB patients	72 (37.9)	28 (14.7)
Breath on contaminated air	27 (14.2)	19 (10)
Not using mask	31 (16.3)	14(7.4)
Do not know	60 (31.6)	9 (4.7)

Table 2: Attitude of Participants toward Tuberculosis

Particulars	Participants N=190 (%)	TB Patients N=70(%)
Buying drugs from store	4(2.1)	2(1.1)
Consulting medical doctors	177 (93.2)	67 (35.3)
Consulting traditional leader	9(4.7)	1(0.5)
Reporting after getting TB		
Hospital /health post	137 (72.1)	64 (33.7)
Traditional medicine	8 (4.2)	3 (1.6)
Private clinic	45 (23.7)	3 (1.6)
Advising TB patients for drugs		
Yes	183 (96.3)	69 (36.3)
No	7 (3.7)	1(0.5)

Table 3: Practices of Participants toward Tuberculosis

Particulars	Participants N=190 (%)	TB Patients N=70
Use of mask while with TB patient or suspect		
Yes	4(2.1)	3(1.6)
No	186 (97.9)	67 35.3
Smoking habit		
Current	85 (44.7)	20 (10.5)
Former	65 (34.2)	35 (18.4)
None	40 21.1	15(7.9)
Behavior with patients		
Normal	145 (76.3)	53 (27.9)
Abnormal	10 (5.3)	4 (2.1)
Do not know	35 (18.4)	13 (6.8)

Table 2 shows attitude of participants' toward TB. When they were asked as if someone in your family or neighbour suffers from TB, what kinds of advice will you seek? Most 177 (93.2%) responded they would consult a medical doctor. Very few responded they would consult a traditional healer and buy medicine from a medical store. Though many participants said they would consult a medical doctor, they also practiced traditional method of treatment and reported to the hospital at later stages of the disease. The attitude after getting TB was also assessed. More (72.1%) responded to report to the hospital after getting disease than the private clinic (23.7%) and traditional medicine (4.2%). A majority, 183 (96.3%) had positive attitude of advising to patients for using proper drugs.

Table 3 shows practices of participants toward tuberculosis. Participants were asked for the use of mask when one with TB patient and TB suspect or both. A majority 186 (97.9%) were not using mask as a protective device. Among TB patients 67 (35.3%) were mask non-users. Participants' smoking habit revealed that 85 (44.7%) were current smokers, 65 (34.2%) former smokers and 40 (21.1%) non-smokers. Among TB patients, former smokers 35 (18.4%) were higher than current smokers. Behavior of participants with TB patients was also assessed. A majority of 145 (76.3%) behaved normal as before, 10 (5.3%), behaved abnormally as disgusting and separate placing but 35 (18.4%) did not have idea about how to behave with TB patients. They were afraid of being close with suffered one. The participants awareness regarding transmission of tuberculosis appeared low i.e. 186 (97.9%) were not aware about infectious mode of disease.

DISCUSSION

Developing countries particularly those in Asia, have for centuries borne heavy burden of TB. Of the eight million people developing TB every year, nearly 40% live in the World Health Organization South-East Asia Region. The problem is now being further complicated by the alarming spread of Human Immunodeficiency Virus (HIV) and emergence of multidrug resistance, social dislocation, poverty and overcrowding. Overall impact in the region is not substantially visible; a great challenge lies ahead for health programmes. Proper management of TB and care of patients can improve their survival and also enhance the quality of their lives (Rajanapithayakorn and Narain, 1999). Despite some knowledge of TB disease, the residents are still being infected as evidenced from number of positive cases interviewed in the study. A high proportion of participants had previous knowledge of disease and nearly all positive participants during the study responded with the knowledge of TB.

ACKNOWLEDGEMENTS

Authors are thankful to Dr. D.S. Bam, Director, National Tuberculosis Center (NTC), for his valuable guidelines and suggestion. We thank to health workers, officers and staff of DPHO and Zonal Hospital in Kanchanpur for their kind help. We would also like to extend our deep memory to the participants of the study area who have contributed significantly in this study. Thanks, also to anonymous reviewers for helpful comments. This research work was financially supported by NZFHRC, DDJ research foundation.

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