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Research Article

**KNOWLEDGE, ATTITUDE AND PREVENTION PRACTICES
OF DRUG PREVENTION OF TB IN PAKISTAN**Dr Usman Saleem¹, Dr Alifa Sabir², Dr Aneeqa Zia³

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Abstract:

Introduction: Tuberculosis (TB) remains a global health problem. In 2011, there were an estimated 8.7 million new cases of TB (13% co-infected with HIV), and 1.4 million people died from TB. **Objectives:** The main objective of the study is to analyze the knowledge, attitude and prevention practices of drug prevention of TB in Rawalpindi, Pakistan. **Material and methods:** This cross sectional study was conducted in Health Department Punjab during July 2019 to January 2020. Questionnaire was prepared by an infectious disease specialist and a final year medical student adopting Iranian guidelines for control of TB (2nd edition) and previous similar studies. **Results:** The data was collected from 150 respondents. Students mean age was 24.74 ± 1.73 (range, 22–40 years), from whom 70 (65.5%) were female and 30 (34.5%) were male. Knowledge score of the students was 16.13 ± 2.06 . Knowledge level of the subjects was moderate to high in the majority of students. Attitude score of students' was 36.08 ± 3.76 , attitude level of the students was moderate to high in the majority of students. **Conclusion:** It is concluded that More effort should be made to improve the knowledge of students regarding TB transmission and the role of sputum smear in diagnosis, as well as emphasis on the importance of the BCG vaccination.

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INTRODUCTION:

Tuberculosis (TB) remains a global health problem. In 2011, there were an estimated 8.7 million new cases of TB (13% co-infected with HIV), and 1.4 million people died from TB. Between 1995 and 2011, 51 million people were successfully treated for TB in countries that had adopted the WHO strategy, saving 20 million lives [1]. From several years ago, treatment and prevention of TB has shifted from inpatient to outpatient settings. In Iran much of the care is provided by general physicians in public health departments and supervised by infectious disease specialists and some by private practitioners. It is clear that for a TB control program to be successful, clinicians should acquire sufficient knowledge and provide appropriate practice essential for the management of TB [2]. The available literature shows considerable variability in the prevention, evaluation, and treatment strategies used by physicians worldwide [3]. A report released by the World Health Organization emphasized “the importance of undergraduate training in tuberculosis and outlined a comprehensive educational strategy to ensure students graduate with the appropriate knowledge, skills, and attitudes essential to the effective management of tuberculosis [4].” There are concerns that physicians still make frequent errors in TB treatment.

Previous interventions to control TB were largely biomedical. Research evidence shows biomedical interventions alone are not enough to curb the spread TB and the emerging Drug Resistant TB strains. Research indicates that changes in socio economic status and improvements in knowledge and attitudes strengthen TB prevention and control. The WHO has also included education interventions as one of its priorities [5]. Despite the growing interest in socio economic aspects of this disease, there is paucity of research on communities knowledge, attitudes and prevention practices of Drug Resistant TB. Poverty and lack of knowledge are regarded as factors that increase the risk of exposure among community members [6].

Objectives

The main objective of the study is to analyze the knowledge, attitude and prevention practices of drug prevention of TB in Rawalpindi, Pakistan.

MATERIAL AND METHODS:

This cross sectional study was conducted in Health Department Punjab during July 2019 to January 2020. Questionnaire was prepared by an infectious disease specialist and a final year medical student adopting Iranian guidelines for control of TB (2nd edition) and previous similar studies. Questionnaires included limited demographic information and questions about knowledge and items about attitudes and practices. Knowledge was assessed with 21 questions on general knowledge, transmission, diagnosis and treatment of TB. Attitude and practice items were based on Iranian guidelines for control of TB and the HICPAC guideline for isolation precautions in hospitals [9]. Attitude was assessed with 9 and practice with 7 items. The questionnaire was administered to all final-year medical students during their clinical rotations. All final-year medical students had exposure to active TB patients and had attended at least two lectures of tuberculosis. Exposure to an active TB case was defined as the student’s report of having examined at least one patient with active pulmonary TB.

The data was collected and analysed using SPSS version 19.

RESULTS:

The data was collected from 150 respondents. Students mean age was 24.74 ± 1.73 (range, 22–40 years), from whom 70 (65.5%) were female and 30 (34.5%) were male. Knowledge score of the students was 16.13 ± 2.06 . Knowledge level of the subjects was moderate to high in the majority of students. Attitude score of students’ was 36.08 ± 3.76 , attitude level of the students was moderate to high in the majority of students.

Table 01: Mean knowledge scores for participants regarding TB

Knowledge question	N	Min	Max	Mean	SD
1. TB falls under which type of infection	48	0	1	0.75	0.43
2. PTB main symptoms	52	0.40	1	0.76	0.14
3. PTB diagnostic tests	51	0.27	1	0.68	0.13
4. PTB transmission	40	0.29	1	0.71	0.15
5. Latent TB screening tests	48	0.27	1	0.74	0.11
6. Percentage of active PTB positive for TB on smear microscopy	50	0	1	0.16	0.37
7. Most useful sputum collection method for PTB diagnosis	35	0	1	0.87	0.33
8. 1 st -line anti-TB drug	38	0.40	1	0.85	0.10
9. 2 nd -line anti-TB drug	30	0.10	1	0.50	0.24
10. Definition of MDR-TB	1	0	1	0.25	0.43
11. Definition of XDR-TB	47	0	1	0.13	0.33
12. Length of standard treatment of drug-sensitive TB	51	0	1	0.31	0.46
13. HIV patients are more vulnerable to contracting TB	51	0	1	0.81	0.39
14. PTB is curable	51	0	1	0.88	0.32
15. MDR-TB is curable	50	0	1	0.51	0.5
16. BCG vaccination is protective against TB	14	0	1	0.36	0.48
17. PTB is transmitted via the airborne route	57	0	1	0.84	0.37
18. Patients with LTBI can spread the disease	15	0	1	0.33	0.47
19. Patients with LTBI have positive reaction on TST/IGRA tests	5	0	1	0.57	0.49
20. Patient with TB become non-infectious soon after initiating appropriate treatment	12	0	1	0.41	0.49
21. Only patients with active TB can spread the disease	511	0	1	0.60	0.49

Table 02: Distribution of level of knowledge, practice and attitude.

	Low	Moderate	High	Total
Knowledge	1(0.7%)	50(34.5%)	24(24.8%)	75
Attitude	2(1.4%)	16(13.15%)	15(15.45%)	33
Practice	17(11.9%)	12(13.35%)	43(44.75%)	42

DISCUSSION:

TB primarily attacks the lungs, but may also affect other parts of the body in up to one-third of cases. TB is transmitted through the air from infectious people to other people while coughing, sneezing, singing, or talking [6]. A single cough may bring out up to 4,000 droplets. Most infections do not have symptoms, known as latent TB. It is estimated that up to 10% of infected persons may gradually develop active TB in their lifetime and fatality may reach up to 50% of the patients if left untreated [7].

TB is a major global health problem. TB causes ill-health among millions of people each year and ranks alongside the HIV as a leading cause of death worldwide. In 2014, there were an estimated 9.6 million new TB cases: 5.4 million among men, 3.2 million among women and 1.0 million among children [8]. The spread of this disease is fuelled by several factors, notably the HIV/AIDS epidemic, low socioeconomic status, overcrowding and malnutrition [9].

African countries in the south of the Sahara, including Ethiopia, are heavily affected by TB. The World Health Organization (WHO) global reports on TB showed that Ethiopia is among the ten top high burden countries regarding the prevalence or incidence cases of TB. However, the real burden of TB in Ethiopia is not known due to several reasons. First, there is neither a reliable disease notification system nor has any regular nationwide epidemiological [10].

CONCLUSION:

It is concluded that More effort should be made to improve the knowledge of students regarding TB transmission and the role of sputum smear in diagnosis, as well as emphasis on the importance of the BCG vaccination.

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