Assessment of Student's Knowledge in High Institute of Medical Technology/Abuslim about Tuberculosis Diseases

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ABSTRACT		ods of protection of	tuberculosis disease. [Data were

A purposive study aims to identify the student knowledge about tuberculosis disease. The sample of 140 students was selected from the second, third, fourth, fifth and sixth class from the medical departments in high Institute of Medical Technology/Abuslim for the period from March 2019 to June 2019. The questionnaire was designed to achieve the aims of study, it was consisting of many parts, the first content the demographic information, the second part include knowledge of students about categories that infected with tuberculosis. The third part include the student knowledge of the signs of disease, the fourth content methods of transmission of disease, and the last part include the student information about the meth-

ABOUT THE STUDY

Tuberculosis is an infectious disease caused by *Mycobacterium tuberculosis*. Tuberculosis typically attacks the lungs, but can also affect other parts of the body (Rieder HL, *et al.*, 2009).

It is estimated that between the years 2000 and 2010, eight to nine million new cases emerged each year. Approximately 1.5 million people die from the disease each year. In adults, tuberculosis is the second leading cause of death due to an infectious disease (after Acquired Immunodeficiency Syndrome (AIDS)), with 95% of deaths occurring in low-income countries. Tuberculosis is a major problem of children in poor countries where it kills over 100,000 children each year (Varaine F, *et al.*, 2017; di Palma S, 2013).

Tuberculosis is an airborne disease caused by the bacterium *Mycobacterium tuberculosis* (*M. tuberculosis*). *M. tuberculosis* and seven very closely related mycobacterial species (*M. bovis, M. africanum, M. microti, M. caprae, M. pinnipedii, M. canetti and M. mungi*) together comprise what is known as the *M. tuberculosis* complex (Rieder HL, *et al.*, 2009).

The human tubercle bacillus (*Mycobacterium tuberculosis*) is the main cause of tuberculosis all over the world. A slightly different type of Tuberculosis, *Mycobacterium africanum*, occurs in Africa. The only important difference is that it is often resistant to thioacetazone (Rieder HL, *et al.*, 2009).

The bovine bacillus (*Mycobacterium bovis*) at one time caused much infection in cattle in Europe and the Americas. Infection was often passed on to man through contaminated milk. Bovine Tuberculosis in milk can be killed by boiling the milk, and bovine tuberculosis rarely occurs where this is the practice (Varaine F, *et al.*, 2017).

Diagnosing and initiating effective treatment in a patient early in the course of their Tuberculosis disease, before they can infect many people, is considered the most effective preventive measure against Tuberculosis (Packe GE and Innes JA, 1988). ods of protection of tuberculosis disease. Data were analysed by using frequency distribution, percentage. This study found insufficient Tuberculosis knowledge in a sample of students, poor knowledge about Tuberculosis. They must improve knowledge about Tuberculosis, because these students could be exposed to the *Mycobacterium* strains during their training activities or when they are employed in private and public health care settings.

Keywords: Student, Tuberculosis, Knowledge, Bacteria

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The procedure included the following:

• The sample of 140 students was selected from the second, third, fourth, fifth and sixth class from the medical departments in high Institute of Medical Technology/Abuslim for the period from March 2019 to June 2019 (Iseman MD, 2000).

• The questionnaire was designed to achieve the aims of study, it was consisting of many parts, the first content the demographic information, the second part include knowledge of students about categories that infected with tuberculosis (*Tables 1 and 2*). The third part include the student knowledge of the signs of disease, the fourth content methods of transmission of disease, and the last part include the student information about the methods of protection of tuberculosis disease (Ait-Khaled N and Enarson DA, 2003) (*Tables 3-5*).

Characteristics	Number	Percentage		
	Semester			
Second	13	9.29		
Third	27	19.3		
Forth	44	31.4		
Fifth	36	25.7		
Sixth	20	14.3		
Department				
Medical labora- tory	20	14.3		
Anesthesia and intensive care	20	14.3		

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General nursing	20	14.3	
Midwifery	20	14.3	
Physiotherapy	20	14.3	
community health	20	14.3	
Pharmacy	20	14.3	
	Age		
19-20	95	67.9	
21-22	38	27.1	
23-24	7	5	
Sex			
Male	61	43.6	
Female	79	56.3	
Does a family member have tuberculosis?			
Yes	0	0	
No	140	100	
Are you single or married?			
Single	120	85.7	
Married	14	10	
Divorced	6	4.3	
Total=140			

with tuberculosis				
Characteristics	Number	Percentage		
	Infects both sex			
Yes	100	71.4		
No	40	28.6		
Infects	Infects female more than male			
Yes	123	87.9		
No	17	12.1		
Infects people with respiratory disease				
Yes	125	89.3		
No	15	10.7		
Infects factory worker more than other				
Yes	90	64.3		
No	50	35.7		
Infects staff in respiratory diseases hospital				
Yes	50	35.7		

90	64.2		
Infects people with acquired immunodeficiency syndrome			
27	19.3		
113	80.7		
mother is infected with	the disease		
120	85.7		
20	14.3		
moker more than other			
80	57.1		
60	42.9		
mbers with a person wit	h disease		
13	9.29		
127	90.7		
Infects children			
97	69.3		
43	30.7		
It infects adult only?			
100	71.4		
40	28.6		
Total=140			
	90 quired immunodeficier 27 113 mother is infected with 120 20 moker more than other 80 60 mbers with a person with 13 127 Infects children 97 43 nfects adult only? 100 40 Total=140		

Table 3: Students knowledge of the signs of disease

Characteristics	Number	Percentage	
Is the disease accompanied with fever especially at night?			
Yes	19	13.6	
No	121	86.4	
The TH	3 patient has headache		
Yes	103	73.6	
No	37	26.4	
The patient becom	me tired when he make	an effort	
Yes	60	42.9	
No	80	57.1	
The patient losing weight			
Yes	63	45	
No	77	55	
Night sweats occur			
Yes	25	17.9	
No	115	82.1	

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Pain chest occur		
Yes	15	10.7
No	125	89.3
Patient has	cough with blood and p	ous
Yes	34	24.3
No	106	75.7
The p	patient loses appetite	
Yes	44	31.4
No	96	68.6
The	e patient has pallor	
Yes	27	19.3
No	113	80.7
Patient has	s severe pain in the bod	y?
Yes	23	16.4
No	117	83.6
The patient has difficulty breathing		
Yes	77	55
No	63	45
The patient is exposed to pneumonia		
Yes	93	66.4
No	47	33.6
Total=140		

Table 4: Methods of transmission of disease

Characteristics	Number	Percentage	
Transmission through contaminated air and water			
Yes	90	64.3	
No	50	35.7	
Transmission through food, diary and dairy products			
Yes	75	53.6	
No	65	46.4	
Transmission through insects bite			
Yes	100	71.4	
No	40	28.6	
Transmission from mother to fetus			
Yes	20	14.2	
No	120	85.7	
Transmission through contact with infected people			

Yes	93	66.4	
No	47	33.6	
Transmission	through contaminated	tools	
Yes	88	62.9	
No	52	37.1	
Transmission through sneezing and coughing from infected people to healthy people			
Yes	58	41.4	
No	82	58.6	
Transm	ission in crowded place		
Yes	97	69.3	
No	43	30.7	
Transmission in closed place			
Yes	48	34.3	
No	92	65.7	
Increasing in people with weakened immune system			
Yes	40	28.6	
No	100	71.4	
Total=140			

Table 5: Student information about the methods of protection of tuberculosis disease

Characteristics	Number	Percentage	
Early diagnosis			
Yes	68	48.6	
No	72	51.4	
Avoided crowded place			
Yes	40	28.6	
No	100	71.4	
If has s	ymptoms go to doctor		
Yes	80	57.1	
No	60	42.9	
Ventilation of public people and crowded			
Yes	55	39.3	
No	85	60.7	
Isolation of patient			
Yes	30	21.4	
No	110	78.6	

Take preventive measures when contact with infected person		
Yes	25	17.9
No	115	82.1
Taking BCG (Bacillus Calmette-Guérin) vaccine		
Yes	70	50
No	70	50
Provide good food		
Yes	32	22.9
No	108	77.1
Playing sports		
Yes	55	39.3
No	85	60.7
Avoid smoking		
Yes	120	85.7
No	20	14.3
Total=140		

• Data were analysed by using frequency distribution, percentage to answer the level of (Yes/No).

The most of the students were aged between (19-20) years and the highest of them were female (56.3%) and most of them were single (85.7%). Knowledge of students about categories that infected with tuberculosis the most of student answered Tuberculosis infects people whose have respiratory disease (89.3%). Student knowledge of the signs of disease the most student answered Tuberculosis patient has headache (73.6%), while student answered the Tuberculosis patient has Pain chest (10.7%). The most students answered Tuberculosis transmission through food, diary and dairy products (73.6%), while (14.2%) answered transmission of Tuberculosis from mother to foetus. Student answered Tuberculosis can transmission through sneezing and coughing from infected people to healthy people (41.4%).

The most student answered for protection from Tuberculosis avoid smoking (85.7%), while (17.9%) answered take preventive measures when contact with infected person.

CONCLUSION

The main objective of this study is to identify the students' knowledge about tuberculosis disease. This study found the insufficient Tuberculosis knowledge in a sample of students, poor knowledge about Tuberculosis. They must improve knowledge about Tuberculosis, because these students could be exposed to the *Mycobacterium* strains during their training activities or when they are employed in private and public health care settings.

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