

Knowledge and Attitudes of the Nursing Students at Mosul University toward Tuberculosis

معارف ومواقف طلبة كلية التمريض / جامعة الموصل تجاه مرض السل

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الخلاصة:

خلفية البحث: التدرن (السل) هو من الأمراض المعدية، ويعتبر السبب الرئيسي الثاني للوفاة في العالم بعد فيروس نقص المناعة البشرية/متلازمة نقص المناعة المكتسب (الإيدز).

الهدف: تهدف الدراسة الحالية إلى تقييم المعارف والمواقف لطلاب التمريض/ جامعة الموصل تجاه مرض السل.

المنهجية: دراسة مسحية وصفية شملت عينة قصدية مناسبة تكونت من (١٢٠) طالب وطالبة من طلبة كلية التمريض، جامعة الموصل، وجمعت البيانات للفترة من ١٧ شباط ٢٠١٨ إلى ٢٥ نيسان ٢٠١٨ عن طريق المقابلة باستخدام استبيان مكونة من ثلاثة أجزاء، الجزء الأول لجمع المعلومات الديموغرافية (٤ فقرات)، الجزء الثاني يتضمن أسئلة عامة حول التدرن الرئوي (٤٠ فقرة)، الجزء الثالث لمعرفة مواقف طلبة التمريض تجاه السل (١٠ فقرات). تم تحليل البيانات عن طريق الإحصاء الوصفي والإحصاء التحليلي.

النتائج: أظهرت النتائج أن نسبة الذكور (٢٨.٣) الإناث (٧١.٧%)، ضمن الفئة العمرية (٢٢-٢٣) سنة. وكشفت الدراسة أن هناك فرق كبير بين معارف الطلاب وموقفهم مع التقدم في السن، والفرق كان غير كبير بين معارف الطلاب مع بعض المتغيرات كالحالة الزوجية والجنس).

الاستنتاج: كشفت الدراسة الحالية أن غالبية أفراد العينة من الإناث وكانوا ضمن الفئة العمرية (٢٢ – ٢٣) سنة كما أوضحت الدراسة أن معارف الطلبة مقبول لكافة المعلومات العامة لمرض السل، في حين كانت مواقفهم حول المرض جيدة.

التوصيات: أوصت الدراسة بضرورة تعزيز معارف ووعي الممرضات وغيرهم من المهن الذين يعملون مع مرضى السل من خلال عقد ورش عمل وندوات تثقيفية أثناء الدراسة وبعد التخرج على كيفية التعامل مع المريض الذي يعاني من هذا المرض أو يشتبه بإصابته به.

الكلمات المفتاحية: معارف الطلبة، الاتجاهات، مرض السل.

Abstract

Background: Tuberculosis (TB) is one of the primary public health problems in developing countries.

Aim of study: The study aims to evaluate the knowledge and attitude of nursing students at Mosul University toward tuberculosis.

Methodology: A cross-sectional descriptive study design. A purposive sample of study consist of (120) nurses students fourth stage. The study was set in the Nursing College/ University of Mosul. Data were collected for the period (17th February 2018) to (25th April 2018). Dependent on the interview technique by using a questionnaire, The questionnaire was designed to achieve the aims of the study, it consisted of three parts, the first content the demographic information, the second part include general knowledge of students about categories that infected with tuberculosis, signs of disease, methods of transmission of disease, and the third part include the student attitude of tuberculosis disease. Data was analyzed by descriptive statistics, which include percentages and proportions of variables, data was prepared, organized and entered into a computer file; Statistical Package for the Social Science (SPSS, Version 11) is used for data analysis.

Results: The results showed that (71.7%) female, male (28.3) was at age (22-23) year. The study showed that there is a significant difference between students' knowledge and attitude with age, and the non-significant difference between students' knowledge and there some socio-cultural factors (marital status, sex).

Conclusion: The majority of the sample of females and were within the age group (22 – 23 years). The study revealed that the student knowledge was acceptable for all variables of the general information of tuberculosis disease, also the student attitude about disease revealed good.

Recommendation: The study recommended the need to strengthen the knowledge and awareness of nurses and other professions working with tuberculosis patients through holding workshops and educational seminars during the study and after graduation on how to deal with the patient who is suffering from this disease or suspected of being infected.

Keyword: Students' Knowledge, Attitude, Tuberculosis diseases

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INTRODUCTION

Tuberculosis (TB) is the 2ed predominant cause of loss of life from infectious sickness in the world after human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS). TB is treatable and curable. However, it stays an essential two public health risk. According to the World Health Organization, one on third of the world's population is contaminated with the TB microorganism ⁽¹⁾. Tuberculosis is an infectious sickness brought about using Mycobacterium Tuberculosis problematic ⁽²⁾. The sickness is greatly talking

transmitted via air droplets, cough, and sneeze when affected individual expels droplets containing bacilli and inhaled by way of healthy individuals. Although TB mainly influences the lungs, it also influences any phase of the physique which includes kidney, brain, intestine, bone and lymph nodes⁽³⁾. Socio-economic factors have as masses impact on the improvement of TB as the bacterium that motives it. The complicated relationship between TB and troubles such as poverty, HIV, homelessness, race, alcoholism, immigration and get right of entry to two fitness care have contributed to the persistence of the disease. Inadequate or incomplete therapy of each latent and active TB has contributed to the development of a couple of drug resistant (MDR) strains, similarly complicating efforts to eradicate the disease⁽¹⁾. Iraq has an estimated populace of (33) million and is ranked as (44) out of (212) worldwide locations and territories through estimated vary of TB cases on the international level. It is viewed amongst the high TB burden global places in the Eastern Mediterranean Region (EMR), contributing to (3%) of the complete cases. The Government of Iraq has given priority to TB control; however, after the 2003 hostilities and deteriorated safety situation, the infrastructure, and human capacity to supply TB care have been critically damaged effectually. In fact as an outcome notification of TB instances continuously diminished in the years (2002 to 2007)⁽⁴⁾.

AIM OF THE STUDY

The study aims to evaluate the knowledge and attitude of nursing students / Mosul University toward tuberculosis.

METHODOLOGY

Research design: A Cross- sectional descriptive study design was adopted to achieve the objectives of the present study from (17th February 2018) to (25th April 2018).

Period of the study and data collection: The period of the study and data collection from (17th February 2018) to (17th March 2018).

Setting: The study conducted in Nursing College / University in Mosul City of Iraq in left side of the Tigris River.

Sample of the study: A probability (randomized stratified sample of 120) student at 4th year's level / morning study. Where the proportion of female more than male and age groups between (20 – 25) years

Study instrument

A self-administered structured questionnaire was used to collect data. In order to collect the study information, a questionnaire was constructed depend on previous studies and related literature. A questionnaire was consisted of three main parts, part one include (3) items which focus on the student demographic data such as (age, sex, material status). Part two consist of the general question to assess knowledge of students toward of TB. Its composed of (40) items that covered the disease, the overall question depended on two option (Yes, No). Part three consist of (10) item to assess student attitudes and practices toward tuberculosis. The overall question depended on two option (Yes, No). The responds of the questions after correction divided in to two groups (0) for not-correctly answered and (1) for correctly answered.

Pilot study: Sample of 10 students was selected from 4th classes in Nursing College / University of Mosul. The list was applied to students who had the same criteria of original study sample. It was carried out from (17th February 2018) to (30th February 2018). The sample of the pilot study was excluded from original study sample.

Validity: Content was determined through utilization of panel of expertise, the list was evaluated by (7) expertise in different fields. They were faculty members from the college of Nursing Universities of Mosul and Bagdad.

Reliability: The questionnaire which correct from the experts opinion, and used the Coefficient Correlation for items which showed that the reliability estimate for questionnaire was ($r = 0.88$) that was significant at ($P < 0.05$) level.

Ethical Considerations: This study was done through the following: Official permission to carry out the study was obtained from the Dean of the College of Nursing, University of Mosul and Permission of the plan of the study obtained from the head of the Clinical Science of Nursing.

Statistical analysis: The data were analyzed using statistical package for social sciences (SPSS, version 22). Descriptive statistical analysis was used to find out frequencies, percentage, mean, and standard deviation.

RESULTS:

Table (1): Study sample distribution according to demographical data

Item		Frequency	Percentage
Age	20 - 21	43	35.8
	22 - 23	67	55.8
	24 - 25	10	8.4
Total		120	100
Mean = 22.5		SD = 1.2	
Sex	Male	34	28.3
	Female	86	71.7
Total		120	100
Marital Status	Single	103	85.8
	Married	17	14.2
Total		120	100

Table 1: Revealed that the most of the students were aged between (22-23 years) (55.8%), and the highest of them were female (71.7%), and most of them were single (85.8%)

Table (2): Distribution of the study sample according to student's knowledge

No.	Knowledge	F.	%
1.	What is the source of your information about TB		
a.	Media broadcast (TV, radio)	48	40%
b.	Print media (newspaper or magazine)	9	7.5%
c.	Family	24	20%
d.	Hospital	74	61.6%
e.	Internet	37	30.8%
f.	Other (seminars, conferences, seminars)	33	27.5%
2.	The cause of tuberculosis:		
a.	Bacterial	62	51.6%
b.	Virus	26	21.6%
c.	Parasite	3	2.5%
d.	I do not know	10	8.3%
3.	Called tuberculosis is consumer?	80	66.6%
4.	Is tuberculosis disease transition?	94	78.3%
5.	Do you think that tuberculosis infects anyone?	49	40.8
6.	Is tuberculosis a genetic disease?	34	28.3%
7.	Members affected by tuberculosis		
a.	Lung	107	89.1%
b.	Bones	30	25%

c.	Kidney	8	6.6%
d.	Uterus	5	4.1%
e.	Abdominal	17	14.1%
f.	Brain and spinal cord	12	10%
8.	Cause of the disease is?		
a.	Cold air	42	35%
b.	Smoking	50	41.6%
c.	Drinking alcohol	42	35%
d.	Lack of food	23	19.1%
e.	Mixing with the patient for a long time	84	70%
9.	The symptoms of TB (cough, fever, chest pain, hemoptysis loud, yellowing of the skin).	106	88.3%
10.	Is the disease is transmitted through the (direction, non-boiling drinking milk, breathing).	97	80.8%
11.	Can one person infected with TB transmission to 10-15 people a year?	75	62.5%
12.	Can one sneeze release up to 40,000 drop contagious.	38	28.3%
13.	Is inhaling less than 10 bacteria may cause infection.	76	63.3%
14.	Is tuberculosis is transmitted by eating meat infected with TB	81	67.5%
15.	Is bacilli (M.bovis) causes' tuberculosis digestive system.	75	62.5%
16.	Factors that help is on the transmission of the disease (family, congestion, humidity, lack of food).	104	86.6%
17.	Is it possible that the spread of tuberculosis by drinking from the same cup?	89	74.1%
18.	Can TB if you sleep in the same bed on which he slept a patient with tuberculosis, or use the same clothes that were worn by the patient of TB?	78	65%
19.	Can TB even after the abuse serum sickness BCG?	43	35.8%
20.	The most common ages vulnerable to the disease are (20-39).	70	58.3%
21.	Is tuberculosis primary sustained : gets after a short period of initial infection	73	60.8%
22.	Transport this infection to the lymph nodes and blood stream to all parts of the body.	96	80%
23.	Is the secondary active TB: In the case gets weaker immune:		
a.	Patients suffering from HIV (AIDS)	87	72.5%
b.	Patients who suffer from respiratory disorders	80	66.6%
c.	Children under the age of 5 years	31	25.8%
24.	The following tests are the best in tuberculosis screening (urine test, blood test, X-ray, sputum examination, in addition to checking Tuberculin test).	90	75%
25.	The unit is checking tuberculin mellitr?	43	35.8%
26.	BCG leads to tuberculin test?	38	31.6%
27.	Is the diagnosis in children usually symptoms and contact with patients and simple chest - X?	87	72.5%
28.	Is the (Mantoux) tests are important in the case of	53	44.1%

	suspicion of TB among children less than 5 years?		
29.	Is histological examination pathology is used in the diagnosis of extra-pulmonary tuberculosis?	76	63.3%
30.	Any of the following treatments are the best in the treatment of tuberculosis		
a.	Pharmaceuticals conventional treatment	3	2.5%
b.	Medications prescribed by doctor	74	61.6%
31.	Antibiotics are considered the cornerstone in the treatment of tuberculosis.	85	70.8%
32.	The period of intensive treatment is 6 months	76	63.3%
33.	Re-treatment period is 8 months	61	50.8%
34.	(DOTS): is the name given to the World Health Organization to control tuberculosis.	64	53.3%
35.	The direct observation of treatment consists of five components?	42	35%
36.	Is Treatment varies depending on the status and duration of TB patient?	99	82.5%
37.	The reasons for the occurrence of drug-resistant TB (MDR-TB) are:	73	60.8%
a.	Lack of commitment by the patient using the medications as prescribed to him and the specific dose	73	60.8%
b.	Patient receiving treatment is not appropriate for a previous TB infection.	46	38.3%
c.	Transmission from an infected person with TB is resistant to treatment.	56	46.6%
d.	I do not know	19	24.1%
38.	Ventilation is considered public places and stay away from crowded places and exposure to the sun rays and the vaccine preventive measures of tuberculosis.	104	86.6%
39.	TB patient non-participation tools (kitchen, spoons, glasses etc.)	100	83.3%
40.	Cover your nose and mouth while coughing or sneezing stop the transmission of TB patient to another.	115	95.8%

Table (3): Distribution of the study sample according to student's attitude

No.	Attitude	F.	%
1.	Tuberculosis is a disease of hazardous and life-threatening that leads to death.	110	91.6%
2.	Direct contact with someone with TB is the fastest roads in the spread of the disease.	113	94.1%
3.	Discomfort when talking with the TB patient.	92	76.6%
4.	Isolate TB patient is one of the best ways of infecting others with the disease	109	90.8%
5.	Simple precautions such as wearing a mask, wash your hands and good ventilation and useful during the care of a patient of tuberculosis.	117	97.5%
6.	TB can be treated with rest and without the use of drugs.	14	11.6%
7.	Integrated food and do physical activities help in the	100	83.3%

	prevention of tuberculosis		
8.	Avoid alcohol intake helps prevent tuberculosis	93	77.5%
9.	The economic situation of the most important reasons for the low tuberculosis	79	65.8%
10.	Public health efforts to increase its impact in reducing the number of TB cases	114	95%

Table 3: Shows that the number of student's attitude toward tuberculosis

Table 4: The Association of knowledge and Attitude with the age groups of the study sample using t-test.

Age	X	SD	DF	T. Obs.	P. value	Sig
Knowledge's	1.70	0.12	119	155.157	0.000	S
Attitudes	1.85	0.16	119	129.128	0.000	S

Table 4: Shows that Knowledge about T.B was once significantly greater amongst those aged (≥ 30) years in contrast with younger respondents ($p < 0.01$)

Table 5: The Association of Knowledge and Attitude with sex of the study sample using t-test.

Categories	Sex	F	X	SD	DF	T. Obs.	P. value	Sig
knowledge's	Male	34	1.72	0.09	118	0.249	0.330	N.S
	Female	86	1.69	0.13				
Attitudes & practices	Male	34	1.83	0.15	118	0.472	0.732	N.S
	Female	86	1.85	0.16				

Table 5: Shows that there is the non-significant difference between students' knowledge and there some socio-cultural factors for sex.

Table 6: The Association of Knowledge and Attitude with the marital status of the study sample using t-test.

Categories	Marital status	F	X	SD	DF	T. Obs.	P. value	Sig
knowledge's	Single	103	1.70	0.12	118	0.343	0.732	N.S
	Married	17	1.69	0.12				
Attitudes	Single	103	1.85	0.16	118	0.298	0.766	N.S
	Married	17	1.84	0.12				

Table 4: Shows that there is the non-significant difference between students' knowledge and there some socio-cultural factors for marital status.

DISCUSSION

Health care crew contributors play important roles in the education of patients and families about tuberculosis and its treatment, the encouragement of sufferers from a low socio-economic background, perfect therapy of alcohol and drug addiction, the enchantment of patients' emotional and social support, and regular implementation of drug treatments. Healthcare group contributors must inspire and aid patients in symptom manipulate and administration of drug aspect effects for profitable TB remedy and control two^(5, 6). In the present study, which objectives to pick out the level of knowledge and the attitudes towards tuberculosis of nursing students who were continuing their education at the university level, determined that students' levels of knowledge on tuberculosis had been acceptable, and their attitudes toward TB are commonly positive? Table (1) revealed that the most of the students were aged between (22-23 years) (55.8%), and the highest of them were female (71.7%), and

most of them were single (85.8%), this finding is supporting by Eman in 2013 who reported that (58.3%) female was at age (18 - 20) year⁽⁷⁾. While Semiha with others in 2011 show that mean age of the sample was (20.61±1.63) (range: 17–34); (78.5%) (n=483) were nursing students, and almost all of them were female (97.9%, n=602)⁽⁸⁾.

In this study the students had been nicely understood the infectious nature of TB however only (51.6%) of college students knew the causative agents (bacteria) which is not like the finding of the study performed in India that revealed 70% of contributors knew TB is triggered with the aid of germs⁽⁹⁾.

Also in this study the students were conscious of the transmission techniques of TB, This discovering of the study thought among college students in Moradabad, India. The college students were more knowledgeable about cough as mode of transmission compared⁽¹⁰⁾ to others (57.7%), equal finding was once mentioned through before⁽¹¹⁾. Knowledge of standard TB signs and symptoms is very important for early analysis and treatment. In this learn about conscious knowledge of TB signs and symptoms used to be revealed. Same, discovering of the study carried amongst the students of Varna University, Bulgaria reported 81% of them understood cough extra than 2 weeks is a symptom of TB^(12, 13). Students had poor knowledge of TB vaccine (35.8%) same finding was once reported in Trinidad and China^(13, 14). Most of the students have positive attitudes towards TB.

The main results revealed that there is the non-significant difference between students' knowledge and there some socio-cultural factors (marital status, sex). Al-Jabri with others in 2006; Maciel with others 2007; Rajpal with others 2007 record that the level of knowledge about tuberculosis was high amongst students in the health professions compared to nonmedical and non-nursing students^(15, 16, 17).

Chang with others in 2007 confirmed that nursing students had a moderate level of usual knowledge about TB, harbored misunderstandings regarding transmission vectors, and maintained low perceptions of susceptibility⁽¹⁸⁾. Jackson with others in 2007 reviews that (91.4%) of college students in the health professions knew that way of aerosols once transmitted TB, yet about one-third did not be aware of the approach for administering tuberculin⁽¹⁹⁾. Semiha with others in 2011 revealed that the level of knowledge about tuberculosis is terrible and that there is a need for a curriculum or instructional application for nursing and college students that will increase their knowledge of TB and assist promote the improvement of positive attitudes towards the sickness⁽⁸⁾. Helene with others 2015 revealed that the college students lack knowledge of tuberculosis infection control measures and document poor implementation of TB-IC measures at their education institution⁽²⁰⁾.

CONCLUSION

The majority of the sample of females and were within the age group (22 – 23 years). The study revealed that the students' knowledge was acceptable for all variables of the categories that infected with tuberculosis, the signs of disease, the transportation, while the students' knowledge about the method of protection from disease revealed good.

RECOMMENDATION:

Based on the previous findings and conclusions of the present study, the following are recommended:

1. The nurses and all other professionals who work with tuberculosis patients need to be supported to increase their knowledge and develop positive attitudes with ongoing postgraduate training programs or certificate programs.
2. Doing health education about tuberculosis disease, signs & symptoms, transportation, and protection of the disease, early detection, and give immediate reports about the infected case.

3. The results indicate the need for investment by healthcare institutions surrounding this topic in view of the important role of nursing in the establishment of strategies for prevention and control of the disease.

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