KNOWLEDGE OF PEOPLE ABOUT THE TUBERCULOSIS INFECTION IN THE HEALTH CENTER IN BAGHDAD

*Ridhaa Mohammed Hasan Al-Saadawi

Article Received on 06/08/2018                                      Article Revised on 26/08/2018                                      Article Accepted on 16/09/2018

ABSTRACT
Background: Tuberculosis is the second-most common cause of death from infectious disease (after those due to HIV/AIDS). Aims: To identify the knowledge of people about TB disease in the health center, and to find out any relationships between demographic characteristic and knowledge of people. Methods: A cross-sectional study was conducted at one of the health centers in a Sheikh Omar in the Al-Rusafa directorate for the period from January to May 2018. The sample size was 150 participants who reviewed the center for treatment and diagnosis. Samples were collected through a pre-prepared questionnaire containing demographic information and the interview was conducted directly with the auditor. The data analysis through descriptive (frequency, percent, p. value). Results: The highest percentage of the participants 107/150 (71.3%) still in the age groups 20-24 years, the female cases 79/150 (52.7%) were higher than the male cases 71/150 (47.3%). The distribution of the visitors to the sections of the center, the highest percentage were 42/150 (28%) of the vaccine room followed by the physician room 34/150 (22.7%). Conclusions: We conclude that the highly significant relationship have been found between the department of the center and overall knowledge assessments p= 0.004. Not significant relationship has been found between the age groups, gender, marital status, monthly income and overall knowledge assessments at the p= 0.145, p= 0.750, p=0.073, p=0.777. Recommendation: Educational programs should be carried out to create awareness among the at-risk groups.

KEYWORD: T.B, Knowledge, program, significant, center.

INTRODUCTION
Tuberculosis is the second-most common cause of death from infectious disease (after those due to HIV/AIDS). Roughly one-third of the world's population has been infected with M. tuberculosis with new infections occurring in about 1% of the population each year. However, most infections with M. tuberculosis do not cause TB disease, and 90–95% of infections remain asymptomatic. In 2012, an estimated 8.6 million chronic cases were active. In 2010, 8.8 million new cases of TB were diagnosed, and 1.20–1.45 million deaths occurred, most of these occurring in developing countries. Of these 1.45 million deaths, about 0.35 million occur in those also infected with HIV. China has achieved particularly dramatic progress, with about an 80% reduction in its TB mortality rate between 1990 and 2010. The number of new cases has declined by 17% between 2004–2014. Tuberculosis is more common in developing countries; about 80% of the population in many Asian and African countries test positive in tuberculin tests, while only 5–10% of the US population test positive. Hopes of totally controlling the disease have been dramatically dampened because of a number of factors, including the difficulty of developing an effective vaccine, the expensive and time-consuming diagnostic process, the necessity of many months of treatment, the increase in HIV-associated tuberculosis, and the emergence of drug-resistant cases in the 1980s. The rates of TB vary with age. In Africa, it primarily affects adolescents and young adults. However, in countries where incidence rates have declined dramatically (such as the United States), TB is mainly a disease of older people and the immunocompromised (risk factors are listed above). Worldwide, 22 "high-burden" states or countries together experience 80% of cases as well as 83% of deaths. The aim of this study to identify the knowledge of people about the TB disease in the health center, and to find out any relationships between demographic characteristic and knowledge of people.

METHODS
A cross-sectional study was conducted at one of the health centers in a Sheikh Omar in the Al-Rusafa directorate for the period from January to May 2018. The sample size was 150 participants who reviewed the center for treatment and diagnosis. This health center is a public center that provides services for women, children...
and the elderly. It also has a special section for men. Samples were collected through a pre-prepared questionnaire containing demographic information and the interview was conducted directly with the auditor. The data analysis through descriptive (frequency, percent, p. value at < 0.05).

RESULTS
Out of 150 participants, 107/150(71.3%) still in the age groups 20-24 years, the female cases 79/150 (52.7%) were higher more than the male cases 71/150 (47.3%). Regarding the distribution of the visitors to the sections of the center, the highest percentage 42/150 (28%) of the vaccine room followed by the physician room 34/150 (22.7%), in this table shows highly significant Relationship have been found between the scientific department and overall knowledge assessments p= 0.004.

Table (4-1): Relationship among Socio-Demographical Characteristics variables and overall knowledge assessments.

| Var. | Groups | No. and Percent | Overall Assessment | C.S. |
|------|--------|----------------|--------------------|------|
| Age Groups | < 20 | No. | Overall Assessment | CC=0.186 |
| | % Age Groups | 68.4% | 31.6% | P=0.145 |
| | % Overall Assessment | 17.1% | 8.1% |
| | 20 - 24 | No. | Overall Assessment | |
| | % Age Groups | 51.4% | 48.6% |
| | % Overall Assessment | 72.4% | 70.3% |
| | 25 - 29 | No. | Overall Assessment | |
| | % Age Groups | 35.3% | 64.7% |
| | % Overall Assessment | 7.9% | 14.9% |
| | 30 ≥ | No. | Overall Assessment | |
| | % Age Groups | 28.6% | 71.4% |
| | % Overall Assessment | 2.6% | 6.8% |
| gender | Male | No. | Overall Assessment | CC=0.026 |
| | % gender | 49.3% | 50.7% | P=0.750 |
| | % Overall Assessment | 46.1% | 48.6% |
| | Female | No. | Overall Assessment | |
| | % gender | 51.9% | 48.1% |
| | % Overall Assessment | 53.9% | 51.4% |
| Department | Physician room | No. | Overall Assessment | CC=0.338 |
| | % Scientific Department | 55.9% | 44.1% | P=0.004 |
| | % Overall Assessment | 25.0% | 70.3% |
| | Physical room | No. | Overall Assessment | |
| | % Scientific Department | 50.0% | 50.0% |
| | % Overall Assessment | 10.5% | 10.8% |
| | Radiology Room | No. | Overall Assessment | |
| | % Scientific Department | 46.7% | 53.3% |
| | % Overall Assessment | 9.2% | 10.8% |
| | Optic room | No. | Overall Assessment | |
| | % Scientific Department | 80.0% | 20.0% |
| | % Overall Assessment | 15.8% | 4.1% |
| | Vaccine Room | No. | Overall Assessment | |
| | % Scientific Department | 26.2% | 73.8% |
| | % Overall Assessment | 14.5% | 41.9% |
| | Dental room | No. | Overall Assessment | |
| | % Scientific Department | 73.3% | 26.7% |
| | % Overall Assessment | 14.5% | 5.4% |
| | Lab. Room | No. | Overall Assessment | |
| | % Scientific Department | 61.5% | 38.5% |
| | % Overall Assessment | 10.5% | 6.8% |

Regarding of marital status, there is no any relation between the marital status and overall knowledge assessment at the value <0.05. For monthly income, the highest percentage was 48% for those with a moderate income. Also, in this table shows that there is not relationship between the income and knowledge assessment at the value <0.05 [Table 2].
Table (4-2): Relationship among Socio-Demographical Characteristics variables and overall knowledge assessments.

| Var.        | Groups | No. and Percent's | Overall Assessment | C.S. |
|-------------|--------|-------------------|--------------------|------|
|             |        |                   | Under             | Upper|      |
| Marital Status | Single | No. 65            | 53.7%             | 46.3%|      |
|             |        | % marital status  |                    |      |      |
|             |        | Overall Assessment| 85.5%             | 75.7%|      |
|             | Married| No. 7             | 30.4%             | 69.6%|      |
|             |        | % marital status  |                    |      |      |
|             |        | Overall Assessment| 9.2%              | 21.6%|      |
|             | Divorced| No. 4            | 80.0%             | 20.0%|      |
|             |        | % marital status  |                    |      |      |
|             |        | Overall Assessment| 5.3%              | 1.4% |      |
|             | Widow  | No. 0             | 0.0%              | 100.00%|      |
|             |        | % marital status  |                    |      |      |
|             |        | Overall Assessment| 0.0%              | 1.40%|      |
| Monthly Income | Good  | No. 29            | 47.5%             | 52.5%|      |
|             |        | % Monthly Income  |                    |      |      |
|             |        | Overall Assessment| 38.2%             | 43.2%|      |
|             | Moderate| No. 36        | 50.0%             | 50.0%|      |
|             |        | % Monthly Income  |                    |      |      |
|             |        | Overall Assessment| 47.4%             | 48.6%|      |
|             | Low    | No. 11            | 64.7%             | 35.3%|      |
|             |        | % Monthly Income  |                    |      |      |
|             |        | Overall Assessment| 14.5%             | 8.1% |      |

Figure (1): Relationship among Socio-Demographical Characteristics variables and overall knowledge assessments.

DISCUSSION
Tuberculosis (TB) remains a major cause of morbidity and mortality, and Viet Nam ranks 12 among the 22 high-TB burden countries. In this study we found 71.3% of samples in the age groups 20-24 years with compared with results in Viet Nam 44.9% in Bangladesh 61.7%, this refers to the deterioration of the health situation due to the wars, resulting lack of...
attention to the health aspect and the lack of medicines. Significant differences in TB organ manifestation in association with season, sex and age suggest different pathophysiological mechanisms of disease development. In our study 52.7% of samples were female, other results found in Malaysia 27.7% (18), in Taiwan 54.4% (19) in India 66.8% (20), this indicate that the difference in lifestyle between countries and most countries suffer from poverty. In our study, 80.7% of samples were single compared with results found in Mexico 92.4% (21); this refers to the different customs and traditions between the two countries. TB patients and their households are characterized by increasingly lower employment income, lower employment rate, and higher dependency on public transfer, but the socio/economic deterioration is rather a risk factor for TB. In this study 48% were moderate monthly income, other results found in Denmark 53% (23), in Sudan 14.9% (24), this is due to the difference in the standard of living between countries and most of limited income families as well as unemployment and lack of opportunities for work.

CONCLUSIONS
We conclude that the half the number of participants still in the age groups 20-24 years; were females; were single; had a moderate monthly income. Highly significant Relationship have been found between the department and overall knowledge assessments at the p = 0.004. Not significant Relationship have been found between the age groups, gender, marital status, and monthly income with the overall knowledge assessments at the p. value = 0.145. p=0.750, p=0.073, p=0.777.

Recommendation
We need to build the communication strategies like training, timely dissemination of information of policy changes and one-to-one dialogue with private practitioners to dispel misconceptions may enhance TB notification. Trust building strategies like providing feedback about referred cases from private sector, health personnel visit or a liaison private doctor may ensure compliance to public health activities. In addition, educational programs should be carried out to create awareness among the at-risk groups.

ACKNOWLEDGMENTS
We would like to acknowledge all staff working in the AL- Omar health center in Baghdad.

Financial support and sponsorship
Non.

Conflicts of interest
There are no conflicts of interest.

REFERENCES
1. Golden MP, Vikram HR (2005). "Extrapulmonary tuberculosis: an overview". American Family Physician, 72(9): 1761–8. PMID 16300038.
2. World Health Organization (2009). "Epidemiology" (PDF). Global tuberculosis control: epidemiology, strategy, financing, 6–33.
3. GBD 2013 Mortality and Causes of Death, Collaborators (17 December 2014). "Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013". Lancet, 385(9963): 117–171.
4. Bonah C (2005). "The 'experimental stable' of the BCG vaccine: safety, efficacy, proof, and standards, 1921–1933". Stud Hist Philos Biol Biomed Sci., 36(4): 696–721.
5. Jacob, JT; Mehta, AK, Leonand, MK (January 2009). "Acute forms of tuberculosis in adults". The American Journal of Medicine, 122(1): 12–7.
6. Comstock G (1994). "The International Tuberculosis Campaign: a pioneering venture in mass vaccination and research". Clin Infect Dis., 19(3): 528–40.
7. Behera, D. (2010). Textbook of pulmonary medicine (2nd ed.). New Delhi: Jaypee Brothers Medical Pub. p. 457. ISBN 978-81-8448-749-7.
8. Bloom, editor, Barry R. (1994). Tuberculosis : pathogenesis, protection, and control. Washington, D.C.: ASM Press. ISBN 978-1-55581-072-6.
9. Persson, Sheryl (2010). Smallpox, Syphilis and Salvation: Medical Breakthroughs That Changed the World. ReadHowYouWant.com. p. 141. ISBN 978-1-4587-6712-7.
10. Rothschild BM; Martin LD; Lev G et al. (August 2001). "Mycobacterium tuberculosis complex DNA from an extinct bison dated 17,000 years before the present". Clin. Infect. Dis., 33(3): 305–11.
11. Kumar V, Abbas AK, Fausto N, Mitchell RN (2007). Robbins Basic Pathology (8th ed.). Saunders Elsevier. pp. 516–522.
12. Halezeroğlu, S; Okur, E (March 2014). "Thoracic Tuberculosis: Management Approaches in the Context of Multidrug and Extensively Drug Resistant Tuberculosis". J. Thoracic Dis., 6(1): 182–5.
13. Anurag Bhargava, Lancelot Pinto, Madhukar Pai (2011). "Mismanagement of tuberculosis in India: Causes, consequences, and the way forward". Hypothesis, 9(1); e7.
14. Amdekar, Y (July 2009). "Changes in the management of tuberculosis". Indian Journal of Pediatrics, 76(7): 739–42.
15. Nhung NV, Hoa NB, Khanh PH, Hennig C. Tuberculosis case notification data in Viet Nam, 2007 to 2012. Western Pac Surveill Response J, 2015 Feb; 9; (6): 1: 7-14.
16. Mondal MN, Nazrul HM, Chowdhury MR, Howard J. Socio-demographic factors affecting knowledge level of Tuberculosis patients in Rajshahi City, Bangladesh. Fr Health Sci., 2014 Dec.; 14(4): 855-65. doi: 10.4314/ahs.v14i4.13.
17. Padberg F, Bätzing-Feigenbaum J, Sagebiel D. Association of extra-pulmonary tuberculosis with
age, sex and season differs depending on the affected organ. Int J Tuberc Lung Dis., 2015 Jun; 19(6): 723-8. doi: 10.5588/ijtld.14.0735.
18. Shanmuganathan R, Subramaniam ID. Clinical manifestation and risk factors of tuberculosis infection in Malaysia: case study of a community clinic. Glob J Health Sci., 2015 Jan; 7(4): 42361. doi: 10.5539/gjhs.v7n4p110.
19. Hung CL, Chien JY, Ou CY. Associated factors for tuberculosis recurrence in Taiwan: a nationwide nested case-control study from 1998 to 2010. PLoS One., 2015 May 1; 10(5): e0124822.
20. Sarpal SS, Goel NK, Kumar D, Janmeja AK. Gender disparities in retreatment patients of tuberculosis: A north Indian study. Nat Sci Biol Med., 2015 Jan-Jun; 6(1): 63-6.
21. Young BN, Rendón A, Rosas-Taraco A, Baker J, Healy M, Gross JM, Long J, Burgos M, Hunley KL. The effects of socioeconomic status, clinical factors, and genetic ancestry on pulmonary tuberculosis disease in northeastern Mexico. PLoS One., 2014 Apr. 11; 9(4): e94303.
22. Suleiman MM, Sahal N, Sodemann M, Elsony A, Aro AR. Tuberculosis awareness in Gezira, Sudan: knowledge, attitude and practice case-control survey. East Mediterr Health J., 2014 Mar. 13; 20(2): 120-9.
23. Fløe A, Hilberg O, Wejse C, Løkke A, Ibsen R, Kjellberg J, Jennum P. The economic burden of tuberculosis in Denmark 1998-2010. Cost analysis in patients and their spouses. Int J Infect Dis., 2015 Mar.; 32: 183-90.
24. Sharaf Eldin GS, Fadl-Elmula I, Ali MS, Ali AB, Salih AL, Mallard K, Bottomley C, McNerney R. Tuberculosis in Sudan: a study of Mycobacterium tuberculosis strain genotype and susceptibility to anti-tuberculosis drugs. BMC Infect Dis., 2011 Aug. 16; 11: 219.