Knowledge of People about the Tuberculosis Infection in the Health Center in Baghdad

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Abstract

Background: Tuberculosis is the second-most common cause of death from infectious disease (after those due to HIV/AIDS).

Aim: 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 of Baghdad Health Department in Al-Rusafa in the Sheikh Omar area for the period from January to 2018. The sample size was 150 people 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).

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 more 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%).

Conclusion: 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.

Keywords: TB; Knowledge; Program; Significant; Center

Introduction

Tuberculosis is the second-most common cause of death from infectious disease (after those due to HIV/AIDS) [1]. Roughly one-third of the world's population has been infected with *M. tuberculosis* [2]. With new infections occurring in about 1% of the population each year [3]. However, most infections with *M. tuberculosis* do not cause TB disease [4], and 90-95% of infections remain asymptomatic [5]. In 2012, an estimated 8.6 million chronic cases were active [6]. 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 [7.8]. Of these 1.45 million deaths, about 0.35 million occur in those also infected with HIV [9]. China has achieved particularly dramatic progress, with about an 80% reduction in its TB mortality rate between 1990 and 2010 [9]. The number of new cases has declined by 17% between 2004–2014 [10]. 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 [11]. 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 [12]. The rates of TB vary with age. In Africa, it primarily affects adolescents and young adults [13]. However, in countries where incidence rates have declined dramatically (such as the United States), TB is mainly a disease of older people and the immune compromised (risk factors are listed above) [14]. Worldwide, 22 "high-burden" states or countries together experience 80% of cases as well as 83% of deaths [10]. 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 of Baghdad Health Department in Al-Rusafa in the Sheikh Omar area for the period from January to 2018. The sample size was 150 people 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).

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%). The table shows that the highly significant relationship have been found between the scientific department and overall knowledge assessments p=0.004 **(Table 1)**.

Table 1 Relationship among socio-demographical characteristics variables and overall knowledge assessments.

Variable	Groups	No. and Percent	Overall Assessment		CS
			Under	**Upper**	CC=0.186
Age Groups	<20	No.	13	6	p=0.145
		% Age Groups	68.40%	31.60%	NS
		% Overall Assessment	17.10%	8.10%	
	20-24	No.	55	52	
		% Age Groups	51.40%	48.60%	
		% Overall Assessment	72.40%	70.30%	
	25-29	No.	6	11	
		% Age Groups	35.30%	64.70%	
		% Overall Assessment	7.90%	14.90%	
	30 ≥	No.	2	5	
		% Age Groups	28.60%	71.40%	
		% Overall Assessment	2.60%	6.80%	
Gender	Male	No.	35	36	CC=0.026
		% gender	49.30%	50.70%	p=0.750
		% Overall Assessment	46.10%	48.60%	NS
	Female	No.	41	38	
		% gender	51.90%	48.10%	
		% Overall Assessment	53.90%	51.40%	
Department	Physician room	No.	19	15	CC=0.338
		% Scientific Department	55.90%	44.10%	p=0.004
		% Overall Assessment	25.00%	20.30%	HS
	Physical room	No.	8	8	
		% Scientific Department	50.00%	50.00%	
		% Overall Assessment	10.50%	10.80%	
	Radiology	No.	7	8	
	Room	% Scientific Department	46.70%	53.30%	

		% Overall Assessment	9.20%	10.80%
	Optic room	No.	12	3
		% Scientific Department	80.00%	20.00%
		% Overall Assessment	15.80%	4.10%
	Vaccine Room	No.	11	31
		% Scientific Department	26.20%	73.80%
		% Overall Assessment	14.50%	41.90%
	Dental room	No.	11	4
		% Scientific Department	73.30%	26.70%
		% Overall Assessment	14.50%	5.40%
	Lab. Room	No.	8	5
		% Scientific Department	61.50%	38.50%
		% Overall Assessment	10.50%	6.80%
CS: Cross Sectional Study, p: p-value, NS: Non-significant, HS: Highly Significant				

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 the table shows that there is no relationship between the income and knowledge assessment at the value <0.05 **(Table 2)**.

Table 2 Relationship among socio-demographic characteristics variables and overall knowledge assessments.

Variable	Groups	No. and Percent's	Overall Assessment		CS
			Under	Upper	
Marital Status	Single	No.	65	56	CC=0.211 p=0.073 NS
		% marital status	53.70%	46.30%	
		% Overall Assessment	85.50%	75.70%	
	Married	No.	7	16	
		% marital status	30.40%	69.60%	
		% Overall Assessment	9.20%	21.60%	
	Divorcee	No.	4	1	
		% marital status	80.00%	20.00%	
		% Overall Assessment	5.30%	1.40%	
	Widow	No.	0	1	
		% marital status	0.00%	100.00%	
		% Overall Assessment	0.00%	1.40%	
Monthly Income	Good	No.	29	32	CC=0.888 p=0.777 NS
		% Monthly Income	47.50%	52.50%	
		% Overall Assessment	38.20%	43.20%	
	Moderate	No.	36	36	
		% Monthly Income	50.00%	50.00%	
		% Overall Assessment	47.40%	48.60%	
	Low	No.	11	6	

		% Monthly Income	64.70%	35.30%	
		% Overall Assessment	14.50%	8.10%	

CS: Cross Sectional Study, p: p-value, NS: Non-significant, HS: Highly Significant

Discussion

Tuberculosis (TB) remains a major cause of morbidity and mortality and Viet Nam ranks 12 among the 22 high-TB burden countries [15]. 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% [15], in Bangladesh 61.7% [16], 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 [17]. 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 [22]. 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 **(Figure 1)**.
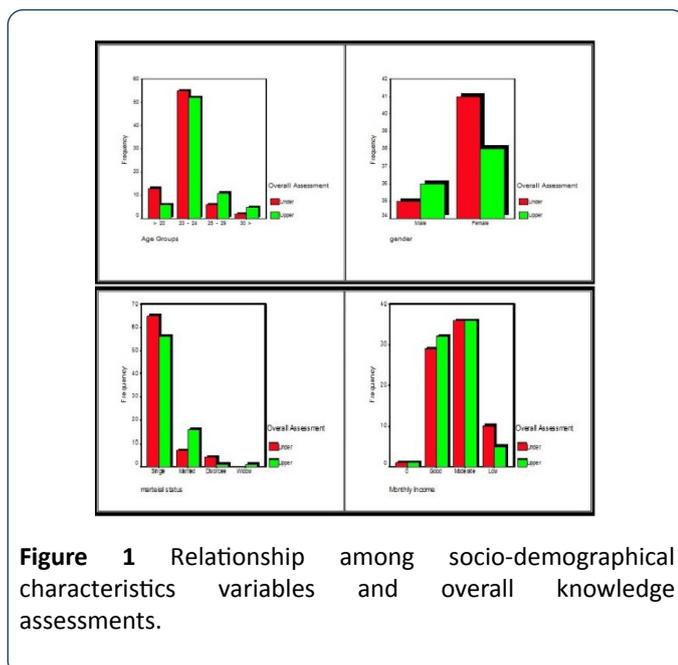

Figure 1 Relationship among socio-demographical characteristics variables and overall knowledge assessments.

Conclusion

We conclude that the half the number of participants are in the age groups 20-24 years; and mostly were females; single; had a moderate monthly income. Highly significant relationship have been found between the department and overall knowledge assessments at the p=0.004. No 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.

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