

SOCIETAL AWARENESS AND STIGMA OF TUBERCULOSIS IN MALAYSIA: AN EMPIRICAL STUDY

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Abstract

Tuberculosis (TB) is an infectious disease which is transmitted through the air. This disease damages the lungs and other organs in the human body. TB is highly contagious and spreads when TB patients cough, sneeze, spit and talk. Due to the ease of infection, anyone can contract the disease. Unfortunately, not many people are aware about TB. This lack of knowledge and awareness is a problem anywhere around the globe. Therefore, the study attempts to examine the level of public awareness regarding this disease and propose a more effective approach to address the issue of insufficient communication of information. Specifically, this study has two main objectives: (i) to review the level of awareness on TB among university students in Malaysia; (ii) to investigate society's stigma towards TB patients; and (iii) to identify the best strategy to improve TB awareness in the society. This study employs a quantitative approach to data collection and analysis. Questionnaire of 400 units were randomly distributed amongst students at Universiti Sains Malaysia and the results were analyzed using the Statistical Package of Social Sciences (SPSS). The findings showed that although the respondents have heard of the TB disease, a majority of them were not sure about the factors causing this disease. The study also noted that a majority of respondents have negative stigma towards TB patients. Based on the analyses of findings, the study proposes several solutions in the effort to improve the awareness among students about TB. The findings indicated that students prefer television, social networking websites and newspapers as the information source for obtaining information on TB. This study also provided some suggestions for future researches to add to the existing literature about the dissemination of information especially on infectious diseases and TB in particular.

Keywords: Tuberculosis, Awareness, Stigma, KAP.

I. Introduction

Tuberculosis disease has been identified as one of the six infectious diseases that pose a threat to the world's population [1]. The disease can easily spread through coughing, spitting, speaking or sneezing [2]. Therefore, people generally are at high risk of infection. It is proven by the statistical reports released by the World Health Organization (WHO) which indicates that, in the year 2010 alone, an estimated number of 8.8 million people worldwide are infected with TB while an estimated 1.4 million of the infected patients died from it [3]. TB disease has been identified to be second to HIV / AIDS in causing mortality around the world [4]. The same trend is also seen in Malaysia in which, in the year 2010, a total of 18,517 people have been infected, which is an increase of 6% from the previous year (17,341 cases in year 2009). The highest cases registered in the same year was in Sabah, totaling 3278 cases, followed by Selangor (2829 cases), Johor (2058 cases), Sarawak (1991 cases) and Kuala Lumpur / Putrajaya (1455 cases) [5].

II. Background

The factors contributing to the increase in the total cases reported can be attributed to simple diffusion mechanism between human to human. However, the Ministry of Health, Malaysia has taken several initiatives to curb this menace, such as providing immunization and vaccination programs in schools, clinics and hospitals (government and private). In addition to vaccination and immunization programs, the government also introduced the National TB Control Programme (NTBC) since the year 1961. This program covers prevention strategies, screening and early detection, treatment and management of TB disease in Malaysia. Despite having a comprehensive TB control program, Malaysia is still struggling to achieve the targets set in the Millennium Development Goals (MDGs)[6]. MDG has targeted a reduction of half of the total prevalence of reported cases and death [7]. However the statistics on Malaysia indicate the opposite. Although vaccines, antibiotics and scientific research have been made available around the world to help reduce the spread of TB, the efforts and measures has thus far been less effective than anticipated[8]. Despite various scientific studies carried out, there is still lack of research on the social science perspective especially on the spread of the disease. Social factors play an important role in managing the TB disease [9]. One of the most important social factors is the stigma within the society towards TB patients [10], [11], [12]. In addition, the low level of awareness among the public regarding TB has also become a factor leading to the increase of TB patients [13], [14], [15]. It is therefore very important to know the level of public awareness of TB disease. The level of awareness may vary according to the demographic factors such as employment, education, economy, area of residence and age. Based on these factors, this study discusses the level of awareness among students about TB in Malaysia using the approach of Knowledge, Attitude and Practice (KAP). From the results, the study also attempts to identify and present the best strategy to improve the awareness among students and the public about TB.

III. Objective Of The Paper

Due to the ease of infection, anyone can contract the disease. Unfortunately, not many people are aware about TB. This lack of knowledge and awareness is a problem anywhere around the globe. Therefore, the study attempts to examine the level of public awareness regarding this disease and propose a more effective approach to address the issue of insufficient communication of information. Specifically, this study has two main objectives: (i) to review the level of awareness on TB among university students in Malaysia; (ii) to investigate society's stigma towards TB patients; and (iii) to identify the best strategy to improve TB awareness in the society.

IV. Research Methodology

This study is a quantitative study using questionnaires as the main source of research data. Questionnaires have been developed based on the results of past studies. The questionnaire form was divided into four parts; Part A (Profile of respondents), Part B (Awareness of TB disease), Part C (Stigma towards TB patients), and Part D (Strategy to improve TB awareness).

This approach is suitable to answer the research questions of this study. In fact, previous researches used the same method to measure the level of public awareness on TB disease [16], [17].

Questionnaires were distributed to students of Universiti Sains Malaysia (Penang) in March 2012. The sample was randomly selected, which consists of first- to fourth-year students from various faculties. The data obtained were then analyzed using the Statistical Packages for Social Science (SPSS).

V. Data Analysis

The findings begin with a description of the respondent profile. Based on the total of 400 questionnaires returned, 45.3% were male respondents, while 54.8% were female. The ratio of male to female respondents was 1:1.21. Majority of the respondents was Malays which was 71.5% of them, followed by Chinese (22.3%) and Indian (5.3%). Besides, 65.5% of the respondents were first year students, 30% second year, and 4% and 0.5% were third and fourth year students respectively. The study also found that 99% of all the respondents were single while only 1.0% married. Table 1 illustrates the above description.

Table 1: Demography of Respondents		
Variable	Frequency (n=400)	Percentage (%)
Gender		
Male	181	45.3
Female	219	54.8
Race		
Malay	286	71.5
Chinese	89	22.3
Indian	21	5.3
Others	4	1.0
Year of education		
Year 1	262	65.5
Year 2	120	30.0
Year 3	16	4.0
Year 4	2	0.5
Marital status		
Single	396	99.0
Married	4	1.0

Table 2 reports the general knowledge of respondents about TB. Overall, 90.5% of respondents have heard of TB. The percentage is lower for respondents who know what TB is with 80.3% indicated that they know what TB is while 19.8% responded otherwise. Another finding was that the percentage of male respondents (i.e. 23.2%) who were not aware of what TB is compared to female (16.9%). Based on Table 2, the study concludes that while the percentage of respondents who had heard of TB was high, but not all of them understand what TB disease actually was.

Table 2: Knowledge about TB			
Variable	Gender (%) (n=400)		Total (%) (n=400)
	Male	Female	
Have you ever heard about TB?			
Yes	86.2 (n=156)	94.1 (n=206)	90.5 (n=362)
No	13.8 (n=25)	5.9 (n=13)	9.5 (n=38)
Do you know what is TB?			
Yes	76.8 (n=139)	83.1 (n=182)	80.3 (n=321)
No	23.2 (n=42)	16.9 (n=37)	19.8 (n=79)

Table 3: Knowledge about the spreading mechanisms of TB

Variable	Percentage (%)		
	Disagree	Not sure	Agree

How does TB spread?	Cough		
		2.8	19.5
		77.8	
Contaminated drinks/food		4.8	35.3
		60.0	
Genetic		21.3	45.5
		33.3	
Sexual			
intercourse with TB		26.0	52.0
patients			22.0

Table 3 shows that about 77.8% of respondents gave the correct answer about the mechanism of the spread of TB (i.e., cough), while 19.5% were not sure and only 2.8% disagreed. In addition, the findings also showed that respondents were not sure about the main cause of TB, as evident by their confusion when some other causes were included as optional answers.

About 60% of the respondents agreed that TB disease can spread through contaminated food or drink, 33.3% agreed that it can spread through genetics, and 22% indicated that TB can be spread through sexual contact with TB patients—when all three answers were not true.

In the cross-tabulation analysis conducted for the variable of diffusion mechanism of TB with the question “Do respondents know what TB is?”, the study indicated that although the respondents admitted that they know what TB is, only 268 respondents gave correct answers, while 47 respondents...

Were unsure and 60 others believed that cough is not the mechanism through which TB spreads. Additionally, a total of 207 respondents who claimed that they know what TB is have incorrect knowledge regarding TB as evident through their opinion that TB can spread through contaminated food and drinks. Similarly, 119 respondents were in the opinion that genetic factor can cause TB. Therefore, the study concludes that majority of the respondents who claimed that they have knowledge on TB have inaccurate understanding regarding the disease especially on the spreading mechanism.

Table 4 shows respondents' views on TB patients. Based on the table, 40.5% of the respondents stated that they feel uncomfortable when they sit near TB patients. In addition, 34% of the respondents stated that they felt afraid of TB patients and finally 29% stated that they always avoid any physical contacts with TB patients. All three of the variables show a high percentage of the stigma towards TB patients compared to positive perspective towards them.

Table 4: Respondents' attitudes towards TB patients

Variable	Percentage (%)		
	No	Not sure	Yes
I am not comfortable to be around TB patients	11.8	47.8	40.5

I am afraid of TB patients

18.5 47.5 34.0

I try not to touch TB patients

21.3 49.8 29.0

Although the majority of respondents were not sure about their views on the TB patients, the data clearly shows that the percentage of respondents who highlighted the positive outlook is lower than respondents who admitted that they had a stigma towards TB patients.

Table 5: The mean value of the stigma of respondents towards TB patients

One-Sample Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
I am not comfortable to be around TB patients	68.897	399	.000	2.288	2.22	2.35
I am afraid of TB patients	60.817	399	.000	2.155	2.09	2.22
I try not to touch TB patients	58.894	399	.000	2.078	2.01	2.15

Table 6: The mean value for stigma and gender

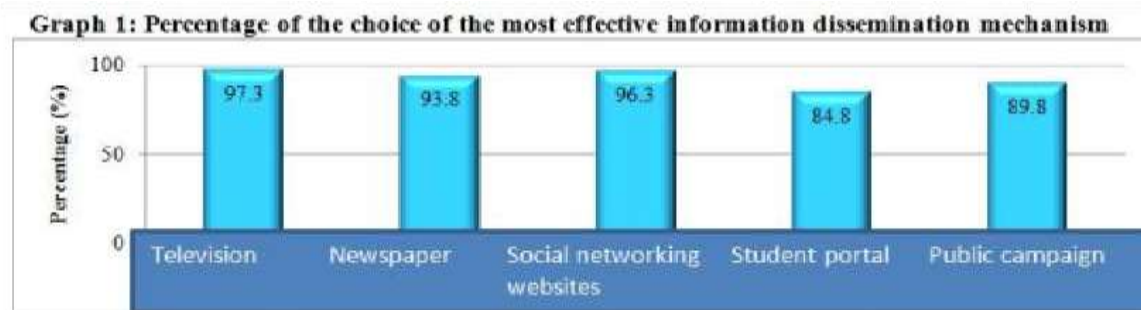
Group Statistics						
	Gender	N	Mean	Std. Deviation	Std. Error Mean	
I am not comfortable to be around TB patients	Male	181	2.27	.664	.049	
	Female	219	2.31	.665	.045	
I am afraid of TB patients	Male	181	2.18	.651	.048	
	Female	219	2.14	.754	.051	
I try not to touch TB patients	Male	181	2.18	.687	.051	
	Female	219	1.99	.710	.048	

Table6shows the stigma towards TB patients in detail. The data shows that the mean of the respondents are high for two variables, namely "I am not comfortable to be around TB patients" and "I am afraid of TB patients". Both of the variables indicated that male and female respondents have a stigma towards TB patients. However, for the third variable, namely "I try not to touch TB patients", the mean formale (2.18)is higher than that of female(1.99) indicating that male respondents are having stigma towards TBpatients compared to female respondents.

VI. Discussion

This study shows that female respondents have relatively better knowledge about TB than female respondents. These findings differ from studies conducted in Ethiopia [18], China [19], Sudan [20] and Vietnam [21]. However, the majority of respondents remain confused on how TB disease can be spread. Thus, this situation could affect the effort to control TB in Malaysia through the National TB Control Programme. In addition, this sample is taken from university students, a group that is often identified as having better knowledge about TB than the group with lower education background [22], [23],[24].

Therefore, a good promotional dissemination on TB disease is important to convey accurate information to the community. Indirectly, all walks of life regardless of educational background can obtain at least the basic facts about TB such as symptoms of TB, possible transmission of TB and TB prevention. Better knowledge about TB can also help individuals who are suspects of TB to seek immediate treatment because lack of information on TB will cause infected individual to experience severe effects [25], [26]. For example, referring to Graph 1, it was found that the majority of students prefer television as a source of information (as obtained by [27]), followed by social websites and newspapers as a medium for dissemination of information about TB.



In addition, this study shows the existence of negative outlook or stigma pertaining TB patients where majority of the respondents, both male and female, admitted that they try to avoid meeting TB patients. This stigma is also proven in other studies ([28], [29] and [30]. Stigma towards TB patients and also to people suspected of being infected can give negative implications to them [31]. This refers to the delaying finding a cure or treatment by TB patients [32]. This delay is caused by the feeling in which they are ashamed or afraid of the fact that they are infected or suspected [33], [34]. Thus they prefer to remain silent rather than telling others [35]. Thus, this action could eventually lead to increasing number of individuals infected with TB [36] and thus will increase the total number of TB patients in the country.

Conclusion

As a conclusion, this study shows that the level of awareness about TB is still low even though they claim to know or aware about TB. Thus, an effective information transfer mechanism is needed to overcome this problem. The suggestion to upgrade the system to promote awareness about TB should be conducted via the most effective medium. This is because the medium vary according to the different levels of society. Therefore, it is a must to do a need analysis before taking any measures. For example the selected media are television, social network and newspapers. This suggestion might differ for respondents from rural areas. Besides upgrading the information transfer system, other suitable methods include routine checkups. The ministry can also introduce health education at the earliest level regarding TB. This is to ensure an early prevention by providing a good understanding on the disease.

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