PERCEPTION OF RISK, STIGMA AND THE NEED FOR INFORMATION REGARDING TUBERCULOSIS

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INTRODUCTION

Tuberculosis (TB) is the second worldwide cause of death due to a single infectious agent, after HIV/AIDS. In 2012, 8.6 million people fell ill from TB and 1.3 million died of tuberculosis. Over 95% of TB deaths occur in low and middle income countries and it’s amongst the top three causes of death in women aged 15-44 years. In 2012, about 530,000 children were ill with TB and 74,000 HIV-negative children have died from TB. TB is among the top causes of death for people living with HIV, causing a quarter of deaths. The estimated number of people that qualify as suffering from tuberculosis each year is declining, albeit very slowly, which means that the world is on track to achieve the MDG target, which is to reverse the spread of TB rate by the year 2015. The TB mortality rate has decreased by 45% between 1990 and 2012. An estimated 22 million lives have been saved by using DOTS and the Stop TB Strategy recommended by WHO [1].

TB affects mostly young adults in their most productive years. However, all age groups are at risk. Over 95% of cases and deaths are in developing countries. TB occurs in every part of the world. In 2012, the largest number of new TB cases occurred in Asia, accounting for 60% of new cases globally. However, sub-Saharan Africa has had the highest proportion of new cases per capita, with over 255 cases per 100,000 inhabitants in 2012 [1].

The WHO STOP TB Strategy has as its vision: “A world without tuberculosis”. The aim of this strategy is to dramatically reduce the global burden of TB infection, according to the Millennium Development Goals and the targets set by the STOP TB partnerships. The main objectives relate to: achieving universal access to high quality care for all people with TB, reduce human suffering and socioeconomic burden associated with TB, protect vulnerable populations from TB, TB / HIV and MDR-TB, supporting the development of new tools and enabling their timely and effective use, protecting and promoting human rights in the prevention, care and control of TB [2].

METHODOLOGY

This study aims to examine whether there are differences in terms of education, knowledge and perceptions amongst medical personnel which treats TB patients, depending on their TB positive or negative history. The main objectives were to: investigate the level of knowledge about tuberculosis, investigate the perceptions about the risk, stigma and seriousness of the disease and investigate the need for information / education about tuberculosis.

We conducted a quantitative survey based on a structured questionnaire, which aims to investigate in depth each problem addressed. The questionnaire was pre-tested in both Romania and Iraq, then applied to the staff of health facilities treating patients with tuberculosis. The survey based on questionnaires followed a series of indicators, namely: personal history of tuberculosis; the level of information on tuberculosis; knowledge about tuberculosis symptoms, transmission and prevention of the disease; the perception about the risk, stigma and seriousness of the disease; the desire for information.

The target group was the medical and non-medical personnel in health facilities treating TB patients. The medical units selected were those in the capital, namely Bucharest and Baghdad. Sample volume was 325 respondents in both countries (146 in Iraq and 179 in Romania). The questionnaire had six sections numbering a total of 55 questions, of which 8 were addressed only to those with a history of TB.

ANALYSIS OF QUESTIONNAIRES

Data processing was performed using SPSS and Excel. For graphics we also used Power Point. To assess staff knowledge we took the answers from 11 questions, namely questions B1 - B9 and B11, B12, and assessed the right answers to the questions to determine knowledge about TB. The answers were scored as follows:

- Three or less than 3 correct answers was considered **poor** knowledge
- Between 4 and 7 correct answers: **medium** knowledge
We cross tabulated the questions with independent variables like gender, age, occupation, place of work and level of education.

**RESULTS AND DISCUSSION**

**Description of sample**

In terms of distribution by gender, for Romania women were predominant (90%), while in Iraq men were predominant, at a rate of 63%. In both countries, 85% of the group were aged between 25 and 54 years old. In Iraq there were more young people aged 18-24 years (6% vs 3% in Romania) (Figure 1).

**Figure 1 - Distribution of lots by age and gender**

Regarding education level, there are no big differences between the two countries, half of both groups having higher education, between 35 and 40% having post-secondary / institute and below 20% secondary or primary education. In terms of occupation and workplace the differences between Romania and Iraq are rather large. The nurses predominated in Romania at 49%, while in Iraq managerial staff prevailed at 43%. Regarding the workplace, in Romania the majority of respondents were from lung disease specialized hospitals in 75% of cases, TB dispensaries in 12% of cases and 1% where family physicians. In Iraq, hospitals made up for 55% and TB dispensaries for the rest of 45%. These differences are due to the different organisation of the TB control network in the two countries.

**Knowledge about tuberculosis**

In both countries the majority of respondents replied that they were provided information about TB (97% in Romania and 96% in Iraq). Regarding knowledge on symptoms, transmission and prevention of TB, 29% of respondents have good knowledge, 67% average knowledge and a 3% had poor knowledge. Of those with poor knowledge the majority are non-medical staff or medical staff other than doctors and nurses.

In Iraq, only 12% of respondents have good knowledge, 63% average knowledge and 7% poor knowledge. Of those with poor knowledge the majority are pharmacists at 25%, other non-medical staff at 15% and nurses at 13%.

Regarding vaccination against TB, in Romania 70% of respondents replied that they had been vaccinated, 28% have not been vaccinated and 2% do not know. Of those who responded that they have been vaccinated, 29% are physicians, 59% are nurses and other medical staff are 15%. Of those who responded that they had not been vaccinated, 33% are doctors, 39% nurses and other medical staff 28%.

Of those who responded that they have been vaccinated in Iraq, 24% are physicians, nurses 6%, 8% paramedics, pharmacists 10%, 48% are managerial staff and 4% other non-medical staff. Of those who responded that they had not been vaccinated, 35% have managerial positions, 33% are pharmacists, 11% are paramedics, 5% are nurses and 16% other non-medical staff.

55% of Romanian respondents were tested for TB. Of these, in terms of the reasons for which they were tested for TB, respondents in Romania have identified the main reasons as working with patients with TB - 60%, that they are regularly tested - 43%, 10% that testing is free and compulsory for employment. For those who have not been tested (37%) the main reasons identified were: that they did not know that they can be tested - 61%, 18% that it was optional and that they were absent when the test took place - 17%.

Regarding Iraq, 56% of respondents replied that they had been tested for TB. Of these, in terms of the reasons for which they were tested for TB, respondents in Romania have identified the main reasons as working with patients with TB - 60%, that they are regularly tested - 43%, 10% that testing is free and compulsory for employment. For those who have not been tested (37%) the main reasons identified were: that they did not know that they can be tested - 61%, 18% that it was optional and that they were absent when the test took place - 17%.

Of those tested for TB in Romania 21% tested positive, 77% negative and 2% did not know how to respond. The testing consisted mainly of IDR PPD test.
and chest X-rays. Also screening for clinical symptoms accounted for 37% of the test, sputum examination 17% and sputum culture 7%. Of those tested for TB in Iraq 18% tested positive, 78% negative and 4% did not know how to respond. Testing methodology consisted mainly of IDR PPD tests - 46%, and chest X-rays - 40%. Also, screening for clinical symptoms accounted for 17% of the testing methods, sputum examination - 9% and sputum culture - 5% (Figure 2).

Regarding the perception of risk, stigma and seriousness of TB Romanian respondents with a history of TB, considered that they have a low risk of TB, unlike those with no history of TB who thought they had a high risk of developing the disease. Both those with and those without a history of TB considered the disease as more serious than everyday problems and shared the problem with family or colleagues, less with friends. Both said that having TB does not change the way other people treated them, but has changed the way they perceive themselves. Respondents in Iraq, with a history of TB, have shared with friends, family and colleagues their suffering; before having the disease, considered that they have a high risk of getting TB, but worried about it less and considered TB a less serious problem than everyday problems (Figure 3).

Regarding the desire for information in both countries, the majority, over 90% said they wanted to receive more information about TB. In terms of subjects, those in Romania opted for the following: What to do to prevent contacting TB - 43% TB treatment - how to heal - 29% What to do to improve adherence to treatment - 19%, symptoms and diagnosis of TB - where to go, whom to contact - 24%, how to communicate with friends / family about the disease - 9%. The media in Romania chosen most often were: TV programs - 42% Presentations made by medical staff - 39%, Brochures, leaflets - 25%, Posters - 28%, radio programs - 13%, illustrated brochures - 12% . Those in Iraq have opted for the following topics: What to do to prevent contacting TB - 60% TB treatment - how to heal - 39% , symptoms and diagnosis of TB - where to go, whom to contact - 29%, how to communicate with friends / family about the illness - 10%. The media most often chosen by those in Iraq were TV programs - 56% Presentations made by medical staff - 54%, Brochures, leaflets - 30%, Posters - 28%, radio programs - 16%, illustrated brochures - 12%.

**CONCLUSION**

The analysis and comparison of responses to the questionnaires applied to respondents in both countries have highlighted a number of conclusions. As such, personnel working in units of TB patient care received information on disease in more than 90% of cases;
knowledge on symptoms, transmission and prevention of TB are average in both countries, hovering slightly above 60%. The poorest knowledge is present in non-medical personnel and medical staff other than doctors. In Iraq nurses have poor knowledge in a ratio of 13% versus 1% in Romania. The staff were tested for TB in a ratio of 55%, mainly those who work directly with patients. This proportion is due to the fact that they are regularly tested, the test is free and compulsory at employment. The main ways of testing were the IDR to PPD and chest X-rays. The perception of risk and seriousness of the disease varies from country to country, the Iraqi perceiving TB as less worrying than everyday problems (in terms of the war in the area), family is the first to be informed and trusted, both for those with a history of TB and for those with no history of TB. Regarding the desire for information, primarily TB prevention enjoys the most interest, followed by information on the correct treatment, then the clinical symptoms and treatment adherence. The most requested/desired information channels are TV programs and presentations by medical staff, posters, brochures and leaflets.

References