A Comparison Study about Factors Responsible for Compliance of Medical Treatment among Complained and Non-Complained Tuberculosis Patients in Urmia/Iran

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Abstract: Tuberculosis bas been one of the leading causes of mortality in human community for many centuries. An important part in medical treatment of these patients is having confidence that all these patients should finish the period of their medical treatment. It bas been estimated that near 40% of these patients stop their medical treatment before finishing the period of their treatment. Due to increased emphasis on following medical treatment, we studied factors responsible for compliance of Medical treatment among complained and non-complained Tuberculosis patients referring to Urmia urban and non urban health centers in west Azarbaijan in Iran. This study was a descriptive research. Study participants were 82 Pulmonary Tuberculosis patients (50 female and 32 male) aged between 15-65 years old. The integrated Model of Health Behaviors was used to elicit information related to factors responsible for compliance of Medical treatment among complained and non-complained Tuberculosis patients. The questionnaire included 8 parts and consisted of 53 questions. Also, the questionnaire was based on the Integrated Model of Health Behaviors that evaluate socio-demographic and 5 components of (Knowledge, cues, health beliefs, self- efficacy and social support) in Tuberculosis patients. The data was analyzed by software of SPSS/Win. The Findings showed that the majority (63.04%) of complained and majority (58.33%) of non complained Tuberculosis patients were female. Findings showed that there was a significant differences between compliance of medical treatments and health beliefs and self-efficacy of Tuberculosis patients ($p<0.001$). On contrary, there was no significant differences between knowledge and socio-demographic characteristics and compliance of medical treatment. Results of this study revealed that complained patients had a good self-efficacy and health beliefs in compare with non complained Tuberculosis patients. According to the importance of compliance of medical treatment in Tuberculosis patients, the community health nurse in confronting with Tuberculosis patients should attend to their self efficacy, sensitivity to the disease, attitudes toward the disease, beliefs, obstacles for the medical treatment and also their awareness of the advantages of the medical treatment. ln the case of confronting with a patient who is susceptible for non compliance of medical treatment, the nurse could prepare the condition of compliance of treatment or involve him in DOTS program.

Key words: Tuberculosis patients, compliance, medical treatment, community health nurse

INTRODUCTION

Tuberculosis (TB) is a major contributor to the global burden of disease and has received considerable attention in recent years, particularly in low and middle-income countries where it is closely associated with HIV/AIDS (Munro *et al.*, 2007). The World Health Organization (WHO) estimates that the largest number of new TB cases in 2005 occurred in the South-East Asia Region, which accounted for 34% of incident cases globally. However, the estimated incidence rate in sub-Saharan Africa is nearly twice that of the South-East Asia Region, at nearly 350 cases per 100 000 population. It is estimated that 1.6 million deaths resulted from TB in 2005. Both the highest number of deaths and the highest mortality per capita are in the Africa Region. The TB epidemic in Africa grew rapidly during the 1990s, but this growth has been slowing each year and incidence rates now appear to have stabilized or begun to fall. In 2005, estimated per capita TB incidence was stable or falling in all 6 WHO regions. However, the slow decline in incidence rates per capita is offset by population growth. Consequently, the number of new cases arising each year is still increasing globally and in the WHO regions of Africa, the Eastern Mediterranean and South-East Asia (http://www.who.int/mediacentre/factsheets/fs104/en/index.html). WHO has

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declared that TB is a global emergency, because TB is out of control in many parts of world (Harries and Graham, 2004). The World Health Organization, the global partnership to Stop TB and the millenium development Project have all adopted the following 2005 targets for tuberculosis control: to detect at least 70% of all estimated sputum smear-positive cases and to treat successfully at least 85% of them. Although, implementation of the DOTS strategy is the foundation for proper tuberculosis control, basic DOTS implementation may not be enough to reach these targets. Instead, evidence from several countries indicates that, although cure rates are approaching the global target, the case detection target may not be met, even with 100% DOTS implementation in designated public facilities (Harries and Graham, 2004). Thus, tuberculosis control must be critically examined to foster higher performance. In the context of an expanded framework for Tuberculosis control, we present 4 strategic interventions through which cure and case detection rates may be significantly improved:

- Wider involvement of community workers.
- Engagement of private practitioners.
- Proper management of drug-resistant tuberculosis.
- Efforts focused on controlling tuberculosis and human immunodeficiency virus (Gupta *et al.*, 2001).

Since, 1990 the Global Tuberculosis program (GTB) bas promoted the revision of national tuberculosis programs to strengthen the focus on Directly Observed Treatment, Short-Course (DOTS) and close monitoring of treatment outcomes (Pio *et al.*, 1999).

Objective: Due to increased emphasis on following medical treatment, we studied factors responsible for compliance of Medical treatment among complained and non-complained tuberculosis patients referred to Urmia University of medical sciences urban and rural health centers.

MATERIALS AND METHODS

This study was a Analytical descriptive research. Study samples were 82 Pulmonary Tuberculosis patients (50 female and 32 male) aged between 15-65 years old. The patients were chosen by simple randomized sampling (in complained TB patients) and by purposive sampling (in non complained TB patients). In the terms of complained TB patients the samples bas been chosen randomly through the overall TB patients list in Urmia urban and rural health centers. In the terms of non complained TB patients all of TB patients who had the study's criteria and willing to participate, were chosen. At first all of Urmia 24 rural and 16 urban health centers were chosen. As there were not TB patients in 8 rural and

6 urban health centers, So these health centers bas been omitted. The Integrated Model of Health Behaviors (IMHB) was used to elicit information related to factors responsible for complice of Médical treatment among complained and non-complained Tuberculoses patients. The questionnaire included 8 parts and consisted of 53 questions. Also, the questionnaire was based on the integrated Model of Health Behaviors that evaluate socio-demographic and 5 components of (Knowledge, cues, health beliefs, self-efficacy and social support) in Tuberculosis patients. The data was analyzed by software of SPSS/Win.

RESULTS AND DISCUSSION

The results of the research, there was a significant differences between 2 groups of TB patients (Complianed and non- complianed), regarding self efficacy and health beliefs (p>0.001). According to WHO reports, reduction of TB incidence, prevalance and deaths by 2015 could be achieved in most parts of the world, but the challenge will be greatest in developing countries (Wright *et al.*, 2004). As mentioned an important part in medical treatment of TB patients is having confidence that all these patients should finish the period of their medical treatment. It bas been estimated that near 40% of these patients stop their medical treatment before finishing the period of their treatment (JNHO, 2004) (Fig. 1-5). Services for TB care should identify and address factors that may make patients interrupt or stop treatment. Supervised treatment, which may have to include direct observation of therapy (DOT), helps patients to take their drugs regularly and complete treatment, thus achieving cure and preventing the development of drug resistance. Supervision must be carried out in a context-specific and patient-sensitive manner and is meant to ensure adherence on the part both of providers (in giving proper care and support) and of patients (in taking regular treatment). Depending on the local conditions, supervision may be undertaken at a health facility, in the workplace, in the community or at home. It should be provided by a treatment partner or treatment supporter who is acceptable to the patient and is trained and supervised by health services. Patient and peer support groups can help to promote adherence to
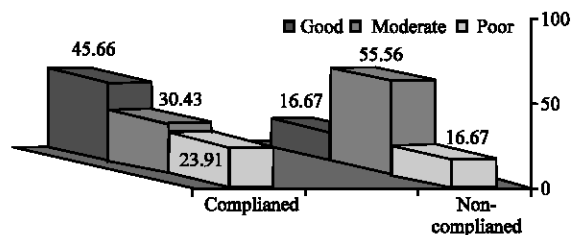

Fig. 1: Frequency distribution of knowledge in complianed and non-complianed TB patients
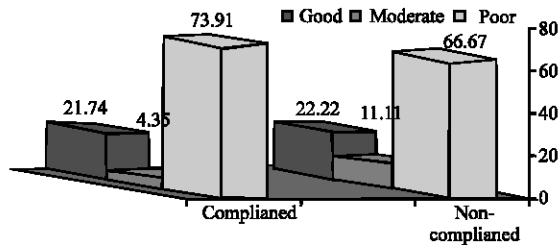
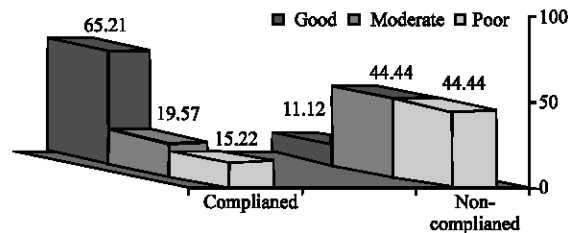Fig. 2: Frequency distribution of cues in complianed and non-complianed TB patients

Fig. 3: Frequency distribution of self efficiency in complianed and non-complianed TB patients
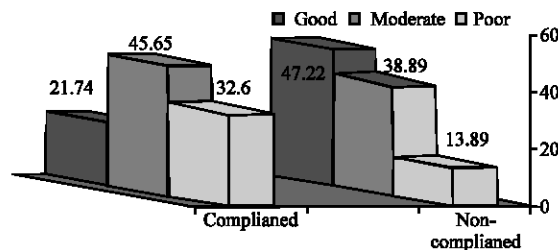

Fig. 4: Frequency distribution of health benifits in complianed and non-complianed TB patients

treatment. Selected patient groups, for example prisoners, drug users and some people with mental health disorders, may need intensive support including DOTS (http://www.who.int/tb/dots/treatment/en/index.html). Locally appropriate measures should be undertaken to identify and address physical, financial, social and cultural barriers-as well as health system-barriers to accessing TB treatment services. Particular attention should be given to the poorest and most vulnerable population groups. Examples of actions that may be appropriate include expanding treatment outlets in the poorest rural and urban settings, involving providers who practise close to where patients live, ensuring that services are free or heavily subsidized, offering psychological and legal support, addressing gender issues, improving staff attitudes and undertaking advocacy and communication activities (Frieden *et al.*, 2004). According to the importance of compliance of medical treatment in tuberculosis patients, the community health nurse in confronting with tuberculosis patients
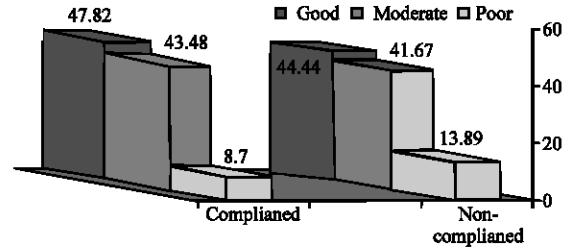

Fig. 5: Frequency distribution of social support in complianed and non-complianed TB patients

should focus to their self efficacy, sensitivity to the disease, attitudes toward the disease, beliefs, obstacles for the medical treatment and also their awareness of the advantages of the medical treatment. In the case of confronting with a patient who is susceptible for non complice of medical treatment, the nurse could prepare the condition of complice of treatment or involve him in DOTS program (Gleissberg *et al.*, 2001).

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