TB: Barrier in access, diagnosis and treatment completion

ABSTRACT

Tuberculosis (TB) is a major public health concern for Nepal like many other developing countries around the world. Economic barrier is one of the major problems in poor and marginalized population. Poor people mostly remain unaware of the treatment facilities and some find it difficult in seeking T.B treatment as they don't trust the program and most of them don't possess enough knowledge about the disease itself. Population residing in the remote areas of the countries can't access the treatment facilities due to far distance of health facilities from there residence due to lack of roads and lack of transport. Thus difficult geography primarily in rural areas in the country acts as a barrier to access the health facility. TB infection faces add-on challenge with the advent of co-infection and possibility of increase in drug resistant TB. This is why detecting TB in its early stage would pose a number of advantages to the patient that would in turn help for early treatment. However, the challenges and barriers in early diagnosis remain that is being contributed by multifaceted factors. The lack of knowledge coupled with poor financial capacity to pay for the diagnosis especially in rural population prevents them from being diagnosed properly as well. Factors for not completing the treatment are when patient starts feeling better, lack of drugs, major side effects of the drugs and inadequate knowledge about advantages of completion of the drug treatment. The attitude of the hospital staff also in many cases leads to discontinuation of the treatment. Patient who have limited income and got financial support from their relatives explained about treatment going above their obtainable resources leading to early withdrawal from the treatment completion. Geography is one of the important issues for treatment completion as routine drug administration follow up in patient (farther from particular distance) is difficult and leads to exhaustion and withdrawal from the treatment.

Key words: Tuberculosis, barrier, access, detection, treatment completion

Sujan B Marahatta[1-3], Ashish Shrestha[4], Pramod R. Bhattrai[4], Anil Thapa,[4] Bikash Lamichinnae,[4] Charu Chhetri[5]

[1] *Editor JMMIHS,* [2]*WHO-TDR Post Doc Research Fellow*

[3] *Associate Professor, Manmohan Memorial Institute of Health Sciences, IOM-TU*

[4] *National Tuberculosis Centre, Nepal*

[5]James.P. Grant School of Public Health, BRAC University, Dhaka, Bangladesh.

Correspondences

Dr Sujan Babu Marahatta

Associate Professor of Community Medicine

Manmohan Memorial Institute of Health Sciences under Institute of Medicine Tribhuvan University

Email: sujanmarhatta@gmail.com

Barrier in access of T.B treatment

A qualitative study showed that TB is much stigmatized condition and is considered as "social disease" which is potentially infectious and dreaded disease [3]. Poor people mostly remain unaware of the treatment facilities and some find it difficult in seeking T.B treatment as they don't trust the program and most of them don't possess enough knowledge about the disease itself [2]. They initially seek health from traditional healer following cultural and social norms adding to the delay in the treatment. Some studies suggests that patient initially denies or disbelief that they can have the infection subsequently when they develop the disease most of them did nothing other than self treating themselves [4]. A Meta analysis done in 2015 for Asian studies found males negatively associated with treatment delays and also showed cultural barrier being a major factor in this[5]. Even though females nutrition and health is considered not as important as males and family feels reluctant to invest in their health the awareness regarding the disease is found more in females as they are the ones who primarily assists children and elderly to the health facilities so they directly receive the information about the disease [6]. Females are afraid of being stigmatized and isolated, they fear of not get married and can have possible negative impacts in their present relationship and social status that's the possible reason for women to not access the health facility[7].

Economic barrier is one of the major problems in poor and marginalized population. A study done in Burkina Faso suggested that patient had to pay around US$101 for the "direct costs" and poor patient in most cases are found to have difficulty in paying for their transportation, food, basic daily needs and overhead cost for the medicines that accounted for 95% of total expenditure [8]. Unemployment is another independent risk factor for delay in seeking treatment [5]

Population residing in the remote areas of the countries can't access the treatment facilities due to far distance of health facilities from there residence, lack of roads and lack of transport. Thus difficult geography primarily in rural areas in the country acts as a barrier to access the health facility [9].

TB treatment in Nepal is through DOTS. It is a treatment course where patient has to comply with the treatment regimen continuously for a period of time, generally 6 months. However, availability of treatment facility does not necessarily mean that it has been accessed and utilized in proper manner. Studies prove that health care facilities are more in high economic areas compared to low economics areas. In most cases constant unavailability of health care providers also hinders the people to seek health care.

Barriers to case detection and Diagnosis

A simple rule is that early diagnosis of TB leads to early treatment. As the treatment gets delayed, the severity of the disease and difficulty in recovery process becomes complicated. As being one of the major public health problems in Nepal, halting and decreasing TB infection faces add-on challenge with the advent of co-infection and possibility of increase in drug resistant TB [1]. This is why detecting TB in its early stage would pose a number of advantages to the patient that would in turn help for early treatment.

However, the challenges and barriers in early diagnosis remain that is being contributed by multifaceted factors.

On study showed that in Nepal patients resort to number of providers and institutions before being diagnosed properly for TB[10]. In addition, they spent long period of time (sometime years) before being diagnosed properly. This is specifically due to the fact that patients usually resort to institutions or facilities that lack proper arrangement for TB diagnosis such as pharmacies and informal health care settings. The lack of knowledge coupled with poor financial capacity to pay for the diagnosis [2] especially in rural population prevents them from being diagnosed properly as well.

Moreover, the disease (TB) could mimic other diseases making the case typical or atypical which in turn make it difficult for physicians and health workers in its proper diagnosis [11]. Even in co-infection, such as with HIV, occurrence of TB could be a difficulty creating diagnostic complacency. Extra pulmonary TB is another state where its diagnosis can be missed as it manifests in other organs or sites of the body [12] .In many of the cases, the case of TB is also overlooked by the physicians that are mostly being attributed to lack of diagnostic facilities, inadequate investigation of the ailment and physician's specialization [13].

Given the complexity of the disease, Nepal remains ill prepared to tackle the issues related with early diagnosis of TB. From the lack of preparedness of health system especially in rural areas, poor socio-economic status of majority of the people, to the lack of awareness and knowledge regarding TB [14] might pose grave challenge in diagnosing TB at early stage. Studies also suggest that inability amongst the health care providers to detect and diagnose T.B is found more than less use of the health care services [15].

Barrier in treatment completion

Factors for not completing the treatment are when patient starts feeling better, lack of drugs, major side effects of the drugs and inadequate knowledge about advantages of completion of the drug treatment [16]

A study suggests that unemployment or probability of job makes a complex pathway for several patients suffering from TB in such population fixed hours of the health facilities and every day visit were considered as time absorbing. The attitude of the hospital staff also in many cases leads to discontinuation of the treatment. Patient who have limited income and got financial support from their relatives explained about treatment going above their obtainable resources leading to early withdrawal from the treatment completion [17].

Serious side effects caused by tuberculosis treatment [18] leads to discontinuation of the treatment equally in patient infected with HIV and in patient who were not [19].

Study done in Rio de Janeiro explains difficulty for patients and four fold burden on health system occurring due to DOTS strategy leading to treatment completion below the WHO recommendation level [20]

Geography is one of the important issues for treatment completion as routine drug administrations follow up in patient (farther from particular distance) is difficult and leads to exhaustion and withdrawal from the treatmen [17]. A study done in Pakistan showed "early defaulter" is primarily from the population who are either separated or widowed. The same study explained about positive affects of female education in continuation of the treatment [21].

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