

ANALYSIS OF HEALTH-SEEKING BEHAVIOR OF TUBERCULOSIS PATIENTS IN NIGERIA

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ABSTRACT

Among several forms of infectious diseases, tuberculosis (TB) cannot be exempted. Even though the treatment of TB is free in Nigeria, the costs incurred by most patients do not reveal the significance of free treatment, and this affects the behavioral pattern of TB patients as a result of the numerous visits of patients to the hospital during the treatment of TB which may or may not yield their expected result. The objective of this study is to examine the behavior of TB patients towards seeking help for their health conditions. The study focused on Kwara and Kebbi States, Nigeria. The findings revealed that most of the Tuberculosis patients were more likely to search for treatment and seek medical advice from secondary health facilities, and they sought treatment first at the out-patient services. The out-patient services are among the secondary health facilities. It is therefore recommended that there is a need for health stakeholders (private and public) to ensure primary health coverage for all patients to prevent the exclusion of certain persons from treatment. This is referred to as inclusiveness.

Keywords: Tuberculosis (TB), TB Patients, Health Seeking, Behavior.

JEL Classification Codes: A19, B10, B25, C10, C53.

INTRODUCTION

Nigeria is highly burdened with numerous infectious diseases such as human immunodeficiency virus (HIV), tuberculosis (TB), and multi-drug-resistant TB (MDR-TB), (WHO, 2019) and was globally ranked as fourth among the twenty-two countries in the world with the high rate of TB disease. WHO (2017) Even though the treatment of TB is free in Nigeria, the costs incurred by most patients do not reveal the significance of free treatment. This is because of the numerous visits of patients to the hospital during the treatment of TB.

The economic costs could be a significant factor militating against the effective utilization of TB patients' ability to manage TB towards accessing anti-tuberculosis treatment. Various studies carried out on the costs of treating tuberculosis have established the direct

expenses taken care of by patients from transportation, medical charges, and food costs during the process of seeking care solutions (WHO, 2015).

The strategies for controlling tuberculosis entails two major workings, these are:

- Case finding which can either be active or passive; and
- Case holding

The active case finding attempts to screen populations at large or to focus on specific populations. It is not generally adopted as the passive case finding. The passive case finding attempt to screen only those that come to the health facilities for diagnosis (Murray, 1994).

Effective control of tuberculosis requires case finding at a tender stage of illness, both for the proper management of the patient and to reduce the transmission of the disease. It also helps to develop drug resistance, and not more than lesser financial costs are required for the patient. It is pertinent to note that majority of the TB patients are poor, hence if additional money is requested for diagnosis, case finding may eventually militate against case holding.

This compromising state implies that the ability of the TB patient to wait in treatment may be compromised. Several persons with symptoms of tuberculosis will first come within reach of a private doctor (Pathania, Almeida, & Kochi, 1997). The process of varied and multiple help-seeking may be referred to as 'shopping' for diagnosis; thereafter, treatment of TB begins.

Nair, George, and Chacko (1997) revealed that poor patients often end up in public health services, simply because they often find it difficult to pay for long-lasting care in the private health provider. The process of moving from one provider to another often causes delays in the TB diagnosis and the commencement of treatment, and thus involves considerable costs for patients.

Shopping is the aftermath that is influenced by the need of patients to explore substitutes to health service providers, most especially when the indications persist. Another influencing factor is the lack of public trust in the public health services. The constraint associated with finance is another factor that requires patients to shift from high-priced providers to those that are price-favorable.

In the same study, Kemp et al. discovered that TB patients spend about US\$13 which corresponds to about 18 days' wages of patients. It is pertinent to note that in the process of treating TB, other indirect costs such as man-hour loss and manpower loss at work could be higher. Umar et al. (2004) conducted another study in Nigeria revealed that TB patients tried to find treatment at an average of three different facilities before their diagnosis. The study exposed the expenses incurred by TB patients particularly on consultation and transportation (Viney, Islam, Hoa, Morishita, & Lönnroth, 2019)

Ukwaja et al. revealed that many families with TB patients usually fall in the category of 'poverty medical trap' because of the costs of treatment which is direct (Wingfield, Boccia, Tovar, Gavino, Zevallos, & Montoya, 2014). Their study also found that TB patients do encounter indirect costs such as job losses because of TB. In China, Long et al. observed the crucial obstruction instituted by health care providers in the course of continual investigations and follow-up. In the study that was carried out in the Ministry of Health in Uganda, the loss of income was estimated at US\$333.30.

In the study by Umar et al. (2004), the time value for the hours spent seeking treatment for hospitalized and non-hospitalized patients were estimated to be US\$517.98 and US\$79.13 respectively. The study of (Wingfield et al., 2014) on MDR-TB patients in Ethiopia found that patients repeatedly take responsibility for financing their costs of health care. To manage and handle this scenario, many patients have been identified to further weaken their strategies by

selling and/or leasing their assets, in addition to the receipt of vouchers to cater for some fundamental costs such as food, shelter, and transportation (Ministry of Health, 2017; Wingfield, et al., 2014; Sari et al., 2019).

Even as it has been recognized that patients accessing anti-tuberculosis treatment are burdened with both costs (direct and indirect costs), and the effects are yet to be adequately considered. This study examines the behavior of TB patients towards seeking help for their health conditions. This study is crucial because of the cost challenges incurred by TB patients and their households in Nigeria. It is a form of the social impact of TB and is referred to as the effect of TB on patients’ employment status, marital status, and educational status including the well-being of their children and their sexual relationships.

METHOD

The study area is Nigeria; it is made up of 36 states including the Federal Capital Territory (FCT), Abuja. All the states and FCT are subdivided into six geo zones, from which two geo zones were drawn: the North-Central and North-West Kwara and the Kano States were then randomly selected from each of the two zones.

From each Senatorial District in the states under study consideration, three local government areas (LGAs) were randomly selected. From the local government areas, two DOTS centers were purposefully selected. The DOTS have a low case-load and a high case load respectively. From the DOTS centers, qualified respondents were identified and selected for inclusion in the study. Table 1 below shows the requisite number of study locations and respondents in each study state.

From the fundamental units of analysis in this study, TB patients were systematically identified from the TB registers in the facilities of the study area in the LGAs. The criteria for being eligible were TB patients in the first and second category aged 15-65 years who were enrolled on treatment during the process of data administration. In Nigeria, standard anti-tuberculosis treatment is given a duration of 6 months, the sampled respondents of TB patients enrolled in treatment between January and June 2019. Probability proportion size (PPS) was used to determine the number of respondents from each state.

Table 1. Study areas and sample size

States	LGAs	DOTS Centers	Respondents		
			Category	Category	Total
Kwara	3	6	57	4	61
Kebbi	3	6	114	9	123
Total	6	12	171	13	184

LGAs: Local Government Areas

Based on three Local Government Areas (LGAs) in the two states under consideration a total number of one hundred and eighty-four (184) respondents were included in the study. These are the number of TB patients that took part in the survey. To select the number of respondents which is required for the study from the sampling frames, patients were drawn from the facility register in the LGAs, and this category of respondents from each patients’ category were drawn with the use of systematic random sampling as shown in Table 1.

Primary data were extracted from eligible respondents through face-to-face interviews at a single point, and responses were obtained through the use of a standardized and an adapted questionnaire. Tuberculosis control officers in the states and external agents assisted in the data collection process. The World Health Organization (WHO), KNCV Tuberculosis Foundation (KNCV), and the Japan Anti-Tuberculosis Association (JATA) developed a tool for estimating patients’ costs. This tool was adapted for the study.

Direct costs to TB patients before and during diagnosis of tuberculosis, indirect costs to TB patients before and during diagnosis of tuberculosis, patient and health system delays, direct costs to TB patient costs during treatment of tuberculosis, indirect costs during treatment of tuberculosis, guardian costs, additional health costs including other infectious diseases that may arise as a result of tuberculosis, income and affordability of tuberculosis and health care, willingness and ability to pay for tuberculosis treatment, health insurance, productivity, coping costs, gender/social costs of TB, total costs of TB to patients, and socio-economic variables are the indices that are measured with the tool.

Data entry was achieved with the Statistical Package for Social Sciences (SPSS) version 21 to describe code relevant variables and analyze. Primary data was employed to achieve descriptive statistics for all variables. This entails percentages and frequencies for categorical variables, and mean and standard deviation for continuous variables. The financial calculations were presented in Naira (₦).

RESULTS

Demographic characteristics of respondents

From the survey that was targeted at one hundred and eighty-four (184) tuberculosis patients, demographic characteristics of respondents were shown in Table 2. The majority of the TB patients were male representing 56.5 percent and are between the age of 20 and 49 years (67.4%). More of the respondents were male representing 56.5 percent resided in the rural areas (44%), while 31 percent of the entire respondents reside in the urban areas, and 19 percent resided in urban slums.

Regarding the education qualification, the majority of the patients had secondary education representing 46.7 percent, while 25.5 percent of the respondents were illiterate (had no formal education), and a little above a quarter of the patients (18.5%) were graduates. The majority of the patients representing 52.7 percent were engaged in the informal nature of employment; only 14.1 percent had formal employment, 11.4 percent were involved in housework and 7.1 percent were students. The income level of participants per month indicated that a little below half (37%) were not earning income, 50.7 percent had earnings less than ₦100,000 per month, while others (22.3%) earned more than ₦100,000) per month.

Table 2. Demographic characteristics of respondents

Indices	Frequencies	Percentages
Gender		
Male	104	56.5
Female	80	43.5

Age (Years)			
	15-19	12	6.52
	20-29	42	22.8
	30-39	48	26.1
	40-49	34	18.5
	50-59	23	12.5
	60 and above	25	13.6
Residence			
	Urban area	57	31
	Urban slum area	35	19
	Rural area	81	44
	Others	11	6
Education Qualification			
	Illiterate (No education)	47	25.5
	Primary	17	9.3
	Secondary	86	46.7
	Tertiary	34	18.5
Nature of Employment			
	Formal	26	14.1
	Informal	97	52.7
	House labor	21	11.4
	Student	13	7.1
	Others	27	14.7
Income (Monthly ₦)			
	<₦25,000	20	10.9
	₦26,000 - ₦50,000	24	13
	₦51,000- ₦100,000	31	16.8
	>₦100,000	41	22.3
	No income	68	37
Ethnic group			
	Yoruba	41	22.3
	Hausa	63	34.2
	Igbo	58	31.5
	Others	22	12
Mean of individuals in TB household			
	Urban	57	31
	Urban slum	41	22.3
	Rural	86	46.7

Source: Author's Survey

Health-seeking behavior of tuberculosis patients

The major issue concerning the management of Tuberculosis is the delay encountered in seeking and obtaining treatment after the inception of symptom, because this can result in an increase in

the level of infection of the patient and result in more protracted and severe illness which will also result in extra costs. It is pertinent to note that there were delays in the report of Tuberculosis among TB patients when in quest of better treatment. The mean time before TB patients could seek treatment is between the ranges of 20 days; this is for cough with blood. The mean time to seek for treatment of Tuberculosis that has a cough without blood symptoms ranges from 38 days. For the delay that was observed among TB patients before the commencement of treatment, a total mean delay of up to 15 days was observed in the study.

From the study, it was revealed that 46 percent of respondents (Tuberculosis patients) thought that was more likely to search for treatment and seek medical advice from secondary health facilities, while 15 percent and 17 percent of respondents believed that they were more likely to seek treatment from private hospitals or clinics and primary health care providers respectively. Also, about 10 percent of respondents were that they were more likely to search for treatment and seek medical advice from herbalists; also about 10 percent of respondents were that they were more likely to search for treatment and seek medical advice from pharmacy/patent medicine vendors (PMVs).

Furthermore, the study found that 50 percent of respondents sought treatment first at the out-patient services, while about 13 percent and 11 percent of respondents sought treatment first at the private hospitals and at the pharmacy respectively. From the study, the respondents that clicked visiting non-government-owned facilities rooted their basis of the decision on the facts that they believe in the health facilities and the health facilities is nearby.

CONCLUSION

Infectious diseases often pose a significant burden on persons and their households, which results into economic, social, and physical instability. Among several forms of infectious diseases, tuberculosis (TB) cannot be exempted. Even though the treatment of TB is free in Nigeria, the costs incurred by most patients do not reveal the significance of free treatment, and this affects the behavioral pattern of TB patients as a result of the numerous visits of patients to the hospital during the treatment of TB which may or may not yield their expected result. The objective of this study is to examine the behavior of TB patients towards seeking help for their health conditions.

The findings revealed that most of the Tuberculosis patients were more likely to search for treatment and seek medical advice from secondary health facilities, and they sought treatment first at the out-patient services. The out-patient services are among the secondary health facilities. It is therefore recommended that there is a need for primary health stakeholders (private and public) to ensure health coverage for all patients to prevent the exclusion of certain persons from treatment.

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