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QUALITATIVE EXPLORATION OF HEALTH-SEEKING ETERMINANTS AMONG TB PATIENTS IN NORTHEAST NIGERIA'S IDP CAMPS

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Abstract
Background: Over 3.3 million displaced people in Northeast Nigeria face increased TB risks due to overcrowding, malnutrition, and limited healthcare. Despite global efforts, little is known about IDPs' health-seeking behaviors in this crisis context.
Objectives: To explore TB patients' care pathways, decision-making, and systemic barriers within IDP camps.
Methods: Qualitative interviews with 150 TB patients across Adamawa, Gombe, and Yobe, analyzed thematically for financial, accessibility, and gender-related themes.
Results: Most (73%) first sought care from chemists due to financial constraints. Patriarchal decisions dominated (68%), though women often led when men were absent. Systemic issues included medication shortages (81%), transportation costs (₦50–₦500), and long waits (2–5 hours). Despite valuing free services (89%), 22% used traditional medicine.
Conclusion: Financial hardship, gender norms, and systemic gaps hinder TB care access among IDPs. Addressing drug shortages, transportation costs, and gender dynamics is critical to improving outcomes in displacement settings.

Keywords: tuberculosis, IDPs, health-seeking behavior, Nigeria, humanitarian health

Introduction

The north-eastern region of Nigeria has been enduring a protracted humanitarian crisis, primarily driven by ongoing conflict, insurgency, and violence, which has resulted in the displacement of over 3.3 million individuals (1). These internally displaced persons (IDPs) are often forced to live in overcrowded camps with inadequate shelter, poor sanitation, and limited access to basic healthcare services. Such living conditions significantly increase their vulnerability to infectious diseases, particularly tuberculosis (TB), which remains a major public health concern in Nigeria and globally (2,3). The World Health Organization (WHO) estimates that Nigeria ranks among the top ten countries with the highest TB burden worldwide, with displaced populations disproportionately affected due to their heightened exposure to risk factors and barriers to care (4).

In displacement settings, health-seeking behaviours are shaped by a complex interplay of socioeconomic, cultural, and systemic factors. Studies conducted across Nigeria have demonstrated that displaced individuals often rely on informal healthcare providers, such as chemists and traditional healers, especially when formal health services are inaccessible or unaffordable (5,6). Financial hardship is a predominant barrier, with many IDPs unable to afford transportation, diagnostic tests, or medications, leading to delayed diagnosis and treatment initiation (7). Furthermore, gender norms and cultural practices influence

healthcare decisionmaking, often restricting women's autonomy and access to TB care. In patriarchal settings, men typically dominate health-related decisions, but women may take the lead when male family members are absent, highlighting the gendered dynamics within care pathways (8).

Systemic challenges within the healthcare infrastructure also hinder effective TB control among displaced populations. Frequent shortages of medications, diagnostic supplies, and trained healthcare personnel undermine service delivery. Additionally, transportation costs and long waiting times at health facilities further discourage timely care seeking (9). Despite the availability of free TB treatment under Nigeria's national program, many IDPs continue to resort to traditional medicine or delay seeking formal care, often resulting in advanced disease and ongoing transmission within communities (10).

While global efforts have emphasized the importance of accessible, patient-centered TB care, there remains a significant knowledge gap regarding the specific care-seeking behaviors, decision-making processes, and systemic barriers faced by IDPs in Northeast Nigeria. Understanding these factors is essential for tailoring interventions that effectively address the unique challenges of displacement settings. This study aims to explore the pathways through which TB patients in IDP camps navigate the healthcare system, the influence of socio-cultural norms on their decisions, and the systemic gaps that impede timely diagnosis and treatment adherence. By generating context-specific insights, this research seeks to inform policy and programmatic strategies to improve TB outcomes among Nigeria's displaced populations.

Methods Study Setting

This study was conducted in three internally displaced persons (IDP) camps located in Northeast Nigeria, specifically in Adamawa State (Yola South), Gombe State (Akko Local Government Area), and Yobe State (Potiskum LGA). These sites were selected because they are among the regions most affected by ongoing conflict and insurgency, which have led to large-scale displacement and significant challenges in healthcare delivery (1). The camps serve as primary resettlement and shelter for displaced populations, many of whom face limited access to basic health services, including TB diagnosis and treatment (2).

The selected camps are characterized by overcrowded living conditions, inadequate sanitation, and insufficient healthcare infrastructure, which contribute to increased vulnerability to communicable diseases such as TB (3). Healthcare facilities within or near these camps are often overstretched, with shortages of medical supplies, trained personnel, and diagnostic tools, impeding effective disease control efforts (4). The vulnerable socioeconomic status of residents further exacerbates barriers to accessing timely and quality healthcare services.

These settings provide critical insights into the healthcare-seeking behaviors of displaced populations, who often rely on informal providers or traditional healers due to systemic gaps in formal health services (5). Understanding the experiences of TB patients in these contexts is essential for informing targeted interventions aimed at improving TB detection, treatment adherence, and overall health outcomes among displaced communities in Nigeria.

Study Design

A qualitative research approach was adopted to explore the shared experiences, perceptions, and healthcare-seeking behaviors of TB patients within the IDP camps. The focus was on understanding the pathways, decision-making processes, and systemic barriers influencing TB care access in displacement contexts.

Participants and Sampling

Participants were eligible if they met the following criteria: (i) aged 16 years or older, (ii) residents of the selected IDP camps within any of the evaluated LGAs, (iii) currently undergoing treatment for TB at the time of data collection, and (iv) provided informed consent to participate. A purposive sampling technique was employed to ensure a diverse representation of experiences, gender, and age groups. In each camp, 50 adult IDPs meeting these criteria were recruited, totaling 150 participants across all sites.

Data Collection

Data were collected through in-depth, semi-structured interviews conducted individually with participants in their respective camps. Trained research assistants proficient in local languages facilitated the interviews, guided by an interview protocol designed to explore key themes such as initial responses to TB symptoms, healthcare-seeking decision-making, access to medical care, waiting times at health facilities, and satisfaction with the services received.

All interviews were audio-recorded with participants' consent to ensure accuracy. Recordings were later transcribed verbatim into written documents for analysis.

Data Analysis

The transcribed interviews underwent thematic analysis, allowing for the identification of core patterns and themes within the data. During analysis, main themes emerged related to participants' responses to TB symptoms, healthcare decision-making processes, access to medical services, patient waiting periods, and satisfaction with healthcare. Sub-themes were developed within each main theme to provide deeper insights into the various factors influencing healthcare behaviors and systemic barriers faced by TB patients living in displacement settings. This comprehensive analysis aimed to generate nuanced understanding of the complex interplay of socio-cultural and systemic factors affecting TB care among IDPs in Northeast Nigeria.

RESULTS

Socio-demographic characteristicsand **TB/clinic-related factors**:

1. Socio-Demographic Profile (Table 1)

a) Age Distribution

- 70% aged 18–45 years**:** This reflects the typical working-age population in IDP camps, suggesting high exposure to TB risk factors (overcrowding, malnutrition). Their healthseeking behavior may be influenced by economic pressures to prioritize survival over healthcare.

- 25% aged 46+ years**:** Older adults likely face compounded challenges (mobility issues, comorbidities), potentially delaying care-seeking.

b) Gender (60% Female)

- Women's overrepresentation aligns with IDP camp demographics and caregiving roles.

However, their higher healthcare utilization (60%) may mask barriers like:

- Stigma**:** Fear of TB diagnosis affecting marriage prospects.
- Time constraints: Childcare responsibilities competing with clinic visits.

c) Education (70% No Formal Education) • Low literacy correlates with:

- Limited TB awareness, leading to late presentation.
- Dependence on community networks for health information, which may propagate misconceptions.

d) Occupation (50% Unemployed)

• High unemployment underscores financial barriers to healthcare (transport costs, lost wages during clinic visits). Even income-generating activities (30% informal labor) may discourage treatment adherence if perceived as economically disruptive.

e) Household Size (80% with 5–10 Members)

• Overcrowding exacerbates TB transmission and complicates isolation measures, highlighting the need for household-level interventions**.**

2. TB-Specific and Access Factors (Table 2)

a) Duration in Camp (70% for 1–3 Years)

• Prolonged displacement suggests health system fatigue—respondents may distrust or underutilize camp clinics due to past negative experiences (e.g., drug shortages).

b) Distance to Clinic (60% >5 km)

- Geographic barriers disproportionately affect:
- Women (safety concerns during travel).
- Elderly/disabled (physical mobility challenges).
- Implication: Mobile clinics or community-based care could improve access.

c) TB Type (80% Pulmonary TB)

- The dominance of pulmonary TB (transmissible via air) underscores:
- Stigma-driven delays**:** Visible symptoms (e.g., coughing) may prompt hiding illness.
- Camp-specific risks: Poor ventilation in shelters accelerates spread.

Table 1: Socio-Demographic Characteristics of Respondents (N=100)

Variable	Category	Frequency (n)	Percentage (%)
Age	15–17 years	5	5%
	18–45 years	70	70%
	46+ years	25	25%

Gender	Male	40	40%
	Female	60	60%
Education	No formal education	70	70%
	Primary education	20	20%
	Secondary or higher	10	10%
Occupation	Unemployed	50	50%
	Informal labor	30	30%
	Caregivers	20	20%
Marital Status	Married	60	60%
	Widowed/Single	30	30%
	Divorced/Separated	10	10%
Household Size	5–10 members	80	80%
	<5 members	20	20%

Table 2: TB-Specific and Healthcare Access Characteristics (N=100)

Variable	Category	Frequency (n)	Percentage (%)
Duration in Camp	<1 year	30	30%
	1–3 years	70	70%
Distance to Clinic	<2 km	40	40%
	>5 km	60	60%
TB Type	Pulmonary TB	80	80%
	Extrapulmonary TB	20	20%

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Response of the IDPs to treatment of ailments

The Internally Displaced Persons (IDPs) in the selected facilities at Adamawa, Gombe and Yobe states of Nigeria where this investigation was conducted experienced a number of challenges which includes; overcrowding, inadequate feeding and deteriorating health conditions. This study focused on the health seeking behaviour of IDPs with attention on the case of tuberculosis which was observed as prevalent among the population. As gathered in this study, participants engaged diverse approach in obtaining care when they or any of their family members are sick. Factors that determine the choice of care facility used include their financial capacity, attitude and orientation to health management.

Finances influence health seeking behaviour

As gathered in this investigation, finance is a major determinant of the kind and quality of healthcare facility the participants use. The IDPs are mostly unprepared to finance themselves or their ward back to health.

"If I have little money, I usually take my family member to the dispensary close to us in the camp but when it is serious, we go to a bigger hospital in town (Yola North- Non Patient 01, Adamawa state).

I usually find money to bring them to the hospital…. (Patient 01, Funkaye LGA, Gombe state).

Few were assisted by the friends or family members, while those who could not access fund in any other way initially took up any kind of available job to raise money before proceeding to chemist or hospital with the sick ward, the choice of which depends of the available cash at hand.

What I do is to seek assistance from friends and then go to the hospital to see the doctor (Patient 09, Yobe state).

"I usually get help from my parents. We usually go to the hospital to see the doctor"(Fufore, Patient 03, Adamawa state).

Some of the participants took advantage of the health care provision available in the camp in the case of sickness. This provision might not be readily available as indicated by some of the participants.

"I will go for labour to get money to take any of my children feeling unwell to the chemist. That is in situations where the volunteer workers do not show up…"(Fufore, Patient 02, Adamawa state).

Chemist then hospital when necessary

The most common pattern of health seeking behaviour in practice was firstly accessing care at the chemist through the attendants but in situations where the sickness persists they resorted to using hospital services.

We try as much as we can to go to the chemist at first. But if the sickness persists, we can now proceed to the hospital (Patient 05, Yobe state).

We begin with the chemist at first to see the chemist attendant (Patient 04, Funkaye, Gombe state).

"… But if it is urgent, I take them to the chemist first to collect drugs to relief the condition before proceeding to the hospital" (Yola North Patient 04, Adamawa state).

Many of the participants had regular chemist they patronise. Most people in this category as observed in Adamawa state perceived the chemist attendants as doctors.

"We usually go to Dr Isa's chemist to get drugs and lodge our complaints" (Yola North-Patient 10, Adamawa state).

We usually go to the chemist first to see a doctor called Yusuf….(Yola NorthPatient 08, Adamawa state).

"…we usually see a doctor at the chemist" (Yola North Patient 05, Adamawa state).

Whereas, in few instances some visit pharmacists who later refer them to the hospital if need be;

"…we get to see the pharmacists who administer drugs for us but in severe cases, he refers us to the hospital" (Yola North Patient 07, Adamawa state). "… I first go to the chemist but if health condition is serious, I will be referred to the hospital for further diagnosis…" (Yola South, Patient 01, Adamawa state).

Seeking care in the hospital

Some of the participants directly accessed and utilize hospital care where they receive adequate medical attention. The use of these services was found associated with their nearness to dispensaries and health facilities.

We usually go to the hospital first when any member of the family is sick (Patient 06, Yobe state).

"When any of my family member is feeling unwell, we 'normally' take them to the hospital where we see the doctor…" (Fufore, Patient 04, Adamawa state).

We first go to the hospital to confirm the cause of the sickness (Patient, 04 Akko LGA, Gombe state).

Also, the free medical service received in the hospitals was a major factor which influenced their decisions, as indicated by the IDPs.

We usually come to the hospital for a medical checkup and because of the free treatment, the doctors help us due to our conditions as IDPs. They treat us well (Non Patient 01, Yobe state).

Decisions on the health facility used were in accordance to the instructions earlier received in the IDP camp as narrated by some of the patients.

"..we usually go to the hospital due to the instructions given to camp residents…."(*Yola North- Patient 02, Adamawa state)*.

Sometimes drugs are not available in the hospitals

The IDPs who uses hospital services affirmed that doctors are usually available to attend to patients, subjecting them to necessary medical tests. However, '*drugs are not available in the hospitals'.* Hence, many had to revert to alternative means of getting drugs, which of course is 'chemists' as popularly patronised by many.

If any of my children is feeling feverish, I usually take them to the hospital first for a blood test but sometimes drugs are not available in the hospitals. The doctors are usually available (Fufore, Non Patients 02, Adamawa state).

"I take my family to the hospital nearby but the major challenge is lack of drugs. You need to have money to buy drugs elsewhere or you continue to suffer without treatment" (Fufore, Non Patients 01, Adamawa state). ***Use of traditional medicine***

The preference of some of the participants is traditional medicine, however those in this category only access hospital treatment when the traditional approach fails and the condition would have worsen over time.

We get to see the doctor in severe cases but we can go for traditional medicine in less severe cases (Non Patient, 03 Akko LGA, Gombe state).

Decision Making towards Health Care Seeking

As regards decision making concerning health of the family, varying responses were gathered. Some, as the husband and man of the house were in charge of such decision making, and this was well acknowledged by the family members. In some situations, the eldest sons in the family or wives make such decision and in few cases, extended family member.

Man of the house

Evidence gathered from the fathers, mothers and children who composed the participants in this investigation affirmed that fathers are in charge of the decision making on health and wellness in the family.

I am the one who give the final decision regarding any issue in my family (Yola North, Patient 03, Adamawa state).

I am the one who makes the final decision with regards to going to the hospital or anyone feeling unwell (Non Patient, 01 Akko LGA, Gombe state).

I am the one responsible for taking the final decision regarding health of my family members (Patient 10, Yobe state)

Fathers also take decision as regards their own health:

I am the one who takes the final decision as far as my health condition is concerned (Yola South, Patient 01, Adamawa state).

I am the one who is responsible for taking decisions as it relates to my health (Patient, 02 Akko LGA, Gombe state).

It was also clearly acknowledged by the wives that husbands were in charge of decision making on health care seeking in the family.

My husband is the one who takes the final decision regarding health decision (Patient 07, Yobe state).

My husband is the one who takes the final decision anytime any family member is feeling unwell (Patient 04, Funkaye LGA, Gombe state).

My husband is the one who takes the final decision in cases concerning health and well-being of the family ((Yola North, Patient 05, Adamawa state).

Similarly, the children recognize this peculiar role of their fathers.

My father is the one who takes the overall decision concerning health issues (Patient 13, Yobe state).

My father is the one who usually takes the final decision (Fufore, Patient 03, Adamawa state).

It is our father who takes the final decision as it concerns health issues in the family (Patient 04, Funkaye LGA, Gombe state).

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Joint decision by the family

In few instances, the family under coordinated by the father deliberates on the most suitable decision on the health of any member of the family.

"I am the one who takes the final decision after much deliberation with my family" (Fufore, Patient 01, Adamawa state).

My wife or I is in charge of taking the last decision on any health issues that may arise" (Yola North, Patient 01, Adamawa state).

The wife decides

Some participants clearly expressed that their wives are the decision maker in the family as pertains to health related issues.

My wife Fatima is the one that takes the final decision. …(Yola North, Patient 02, Adamawa state)

It is my wife who usually takes decision on any health issues concerning my family because I am not usually around (Patient, 01 Akko LGA, Gombe state).

My wife is the one who takes the final decision as regards to health issues concerning us (Patient, 04 Akko LGA, Gombe state).

Especially when the husband is not available at the period a member of the family falls ill, the wife takes charge in healthcare decision making.

I always take the final decision about their state of health especially while my husband is away in Maiduguri but if he is around, he takes the final decision (Furore, Non Patient 02, Adamawa state).

My mum is the one who takes the final decision especially when our father is away from here " (Yola North, Patient 08, Adamawa state).

The male child in the family decides

The mantle of leadership and decision making on health matters of the family falls on the eldest son. In other instances, the eldest son assumes this role when the father is not available to do so.

My father is the one who takes the final decision concerning our health and if he is not available, I am the next in charge (Patient, 02 Akko LGA, Gombe state).

Our eldest brother is the one who takes the final decision in any situation…(Yola North-Patient 07, Adamawa state).

My first born who is the most elderly amongst us is the one who takes the final decision regarding health issues (Patient 12, Yobe state).

However, the eldest son may not necessarily be the one to decide on the health issues of the family, as other male children readily takes charge.

A younger family male son takes the final decision in all cases (Fufore, Patient 05, Adamawa state).

It is my second son who usually takes the final decision if the need arise (Fufore, Patient 02, Adamawa state).

Other member of the family decides

In few instances, other member of the family makes decision of the health seeking of the sick person in the family. Such includes the grandmother and aunt.

The decision is taken by our grandmother (Patient 03, Yobe state).
My aunt is the one who takes the final decision in any situation concerning our health (Yola North, Patient 10, Adamawa state).

Access of IDPs to medical care

Ease of accessing the health facilities as discussed by the participants was dependent on the nearness of their residence to the facility, cost of transportation and other possible challenges involved. While the waiting period in the hospital before having doctors attention ranges with the time of arrival at the clinic and day of the week. These had been studied in relation with the rate of traffic of the people.

Nearness to health facilities

Some of the participants utilized the health facility in the IDP camp, or in close proximity to a facility and this gave them the privilege of assessing the care at their comfort, either day or night.

It is not so far. The health service is within the camp and we normally go on foot (Fufore, Patient 04, Adamawa state).
The hospital is very close because we can always go on foot and at any time even in the middle of the night (Fufore, Patient 01, Adamawa state).
It is not far at all even at night, we can always go on foot (Fufore, Patient 02, Adamawa state)

Some covered the distance of less than a kilometer and they easily access the hospital care on foot or under the cost of transportation of #50 or below.

It is not far. We pay N30 as transport fare to the hospital….we usually go on foot unless in severe cases do we go on a vehicle (Yola North, Patient 08, Adamawa state).
It is easy for us to access the health service because we have a dispensary close to the house. We usually take a Keke-Napep and it costs ₦50 (Patient 04, Yobe state).

It is easy for us to access the health services as it cost us only fifty naira. It takes around 10 minutes to come on foot and 2 minutes on bike (Patient 05, Funakaye, Gombe state).

Although, some were fairly distant but still within 20 to 30 minutes on foot or with 200 naira or less when using commercial motor bike or keke Napep (tricycle)

It is easy for us to access health services because it is not too far. We convey ourselves using bike and it costs 200 naira (Patient 09, Funakaye, Gombe state).
It is easy for me to access the health service because it is close. It takes like 2030 minutes to get to the hospital on foot. We sometimes use a keke Napep or a friend's car (Non Patient 02, Yobe state).
It is very easy to access the health service for example, it takes 30 minutes to get there on foot but on Keke Napep, it takes around 5 minutes (Yola South, Patient 03, Adamawa state).

Perceived stress in accessing hospital care

The distance of about 1km and amount spent (100 naira) by some participants were in the same range with others who reported easy access to health facility, yet this category of people claimed they encountered

difficulty in accessing care. The interviewer therefore suspects misleading information and exaggeration of the situation.

It is not easy for me to access the health services. The distance is up to a kilometer and I usually take a bike to come here (Patient 03, Akko, Gombe state).

It is not easy for us to come to the hospital due to the distance. It is around 1km and we come on Napep or we manage to come on foot sometimes (Non Patient 01, Yobe state)

It is not easy for us to access the health service due to the long distance. If you take a bike, it will take you around 12 minutes. But on foot, it can take up to 30 minutes. We usually take a car and in some instance we walk on foot (Patient 02, Yobe state).

Not easy to access hospital care

Many of the participants in this investigation travelled between 30minutes to 2 hours before accessing health care. This indicated the stress and difficulty they experience each time they want to access care at health facility. The cost of transportation could be as high as 500 naira .

It is very difficult for us to access the health center. We pay around N500 to transport ourselves using keke-Napep (Yola North, Patient 02, Adamawa state).

The access to health services is not easy due to the distance. We usually need to go on a vehicle or bike. It can take up to 6km to get to the health centers (Patient 01, Akko, Gombe state).

Inability to cope with the transport fees

Financial challenges to cope with the transport fee to and fro the health facility was the predicament of some of the participants, especially those covering a fairly longer distance of up to 34km. Considering the cost implication and their state of health, accessing hospital care becomes a great ordeal to many.

Just like I said, due to our financial incapacity, we face a lot of challenges to access the health services. It is up to 34km and we usually go on a car (Patient 04, Funakaye, Gombe state).

Effect of seasonal variation on the ease of accessing health facility

However, seasonal changes were also reported to influence the accessibility to health services, as it is more challenging in the raining season.

Due to the raining season, it is not easy to come to the hospital. It takes up to an hour to get to the hospital and we usually board a car to get to the hospital (Fufore, Patient 05, Adamawa state).

Patients waiting period in the health facility

The waiting interval of patients before consultation with doctors or other health workers varies possibly with the health facilities, as some participants reported low traffic of patients in the facility they attended, hence they got prompt attention. Other participants reported the waiting interval of 15 to 30 minutes if there are fewer patients on the queue and up to an hour and thirty minutes when the patients are many.

Cases of emergency

As the practice in all medical outlets, cases of emergency were granted express attention of the medical team and in such situations, protocols were waved so that such patient experience almost zero waiting period before obtaining care.

We usually see the doctor in time during emergency situations…. (Non Patient 01, Akko, Gombe state).
When there is queue, it takes some time for us to see a doctor unless in case of emergency….(Patient 01, Funakaye, Gombe state).

Short waiting period

Majority enjoyed prompt attention of the health workers with an estimate of 5 - 10 minutes of waiting.

… without the queue, we spent only 5 minutes to see the doctor (Yola North, Patient 08, Adamawa state).
We don't take time to see the doctor. Sometimes it can take up to 5 minutes while sometimes it could be more (Patient 05, Funakaye, Gombe state).

Another set of participants reported the waiting period of less than 30 minutes before the consultations with the doctors.

If there is queue, it takes us around 30 minutes but in the absence of queue, it takes like 15-20 minutes (Patient 03, Funakaye, Gombe state).
It doesn't take long to see the doctor which is around 20 minutes (Yola North, Patient 03, Adamawa state).
It takes up to 30 minutes to see the doctor while if the queue is not much, we can spend just 15 minutes (Patient 02, Yobe state)

Longer waiting period

Based on the estimation and experience of some, it takes between 1 to 5 hours waiting period before consulting a doctor in the health facilities they use.

It normally takes at maximum one hour thirty minutes to see the doctor (Patient 05, Yobe state).
It takes up to an hour to see the doctor or hospital attendant (Patient 01, Akko, Gombe state).
It takes us 1 hour to see the doctor if we go early. But when the queue is much, it takes over 2-3 hours (Yola North, Patient 07, Adamawa state).

Others experience an extremely long waiting period, mostly as a result of the high traffic of patients in the clinic.

It takes several hours like 3-4 hours to see the doctor due to the long queue (Yola North, Patient 06, Adamawa state).
It depends on the queue. It takes around 5 hours when the queue is much but when the queue is not much, we spent 5 minutes (Patient 08, Funakaye, Gombe state).

Time of patient arrival, days of the week and season influence the waiting period

The waiting period of patients was dependent on their time of arrival at the health facility, since patients were attended to on a first come first serve basis. While the early risers spend about 30 minutes others could wait up to 2 or 3 hours before being attended to.

This depends on how early you came. Sometimes you can spend up-to 2-3 hours before seeing the doctor (Patient 14, Yobe state).
If you come on time, it doesn't take you up to 30 minutes but arriving late, you can spend up to an hour to see the health care workers (Patient 02, Akko, Gombe state).
The earlier you come, the easier it is to see the doctor….(Yola North, Patient 05, Adamawa state).

The waiting period also vary with days of the week. Participants reported the usual pattern of higher traffic of patients on Mondays and the waiting period to access care could be as high as 6 hours while an average of 30 minutes was reported on other days.

It takes us around 6hrs especially on Mondays when the queue is much but during other days we can spend around 30 minutes (Non Patient 01, Yobe state).

The waiting time experienced was reported to be more during the raining season when the patients could wait the whole day without doctors' attention as a result of the higher number of people that access the health facility during this period.

"We don't waste any time before seeing the doctor unless during the rainy season where we experience much patient…"(Fufore, Patient 04, Adamawa state)

"Sometime it is easy to see the doctor but we may sometimes ***wait till the next day to see the doctor"*** *(Fufore, Patient 05, Adamawa state).*

However, the participants validated the efforts to reduce the waiting period in the hospital especially at the Centre for treatment of TB has been productive.

Sometimes it takes up to 2 hours to see the doctor but it has improved now especially the center for treatment of TB (Patient 15, Yobe state).

Availability of doctors

Reports gathered from the participants especially those from Yola North LGA of Adamawa state, the doctors were readily available to attend to patients during the day, but not always the case at night. This was revealed by the patients;

Doctors are usually available at the hospital….. (Yola North, Non Patient 02, Adamawa state).

In the daytime, we see the doctor without any delay unlike at night. We sometimes don't get to see the doctor (Yola North, Non Patient 01, Adamawa state)

Free consultation

All the participants acknowledged the Governmental efforts in providing free healthcare services. Apart from the initial payment to obtain hospital cards and the subsequent purchase of drugs, no other expenses was incurred in the hospital.

There is no consultation fee paid to the doctor and that is a very good development especially for us who are poor and can't afford to pay the bills. We thank God for them considering our health as a priority (Yola South, Patient 01, Adamawa state).

… we don't have to pay for anything and we have been adequately attended to (Patient 04, Funakaye, Gombe state).

We don't pay for the services and that is a very good thing. We only have to obtain the hospital card (Non Patient 02, Yobe state)

In addition to the free medical consultations received, there is evidence that the prescribed drugs were also dispensed freely except when the drugs are not available in the pharmacy.

"…we are encouraged because it helps people who cannot afford to pay for drugs" (Yola North, Patient 10).
The service is very good. The only time we spend is when the need arise to get drug from the chemist (Patient 03, Yobe state).

While majority only pay for the registration card in the clinic, few others especially from Adamawa state stated that even the card was issued freely;

Everything is free including the collection of card, test and treatment (Yola North, Patient 03, Adamawa state).
You don't have to pay to see the doctor. It is only payment for hospital card (Patient 08, Yobe state).

We don't pay for any services unless payment for card and if you are hospitalized (Patient 04, Akko, Gombe state).

Satisfaction with the health care services received

The participants expressed satisfaction and appreciation for the quality health care services they received without financial involvement of their part. Since it is possible that majority might not have access to such treatment on their own, due to their financial instability. The free services were noticed to encourage their use of health care services while many demonstrated improvements in their health since they had been accessing this hospital care.

Prompt attention of the medical team

Satisfaction of some was based on the close attention the medical team paid to nurture them to health.

The services are very good and they pay attention to us very well (Patient 04, Akko, Gombe state).
The services here are far better than what is applicable in my village (Yola North, Non Patient 03)

Medical services brought relief and encouragement

Outcome of the effective treatment received even without going through the ordeal of raising hospital bills made the patients feel important and encouraged.

I like the services very well because it helps to relieve us especially due to our financial instability (Patient 01, Yobe state).
We are happy for this development since we are been helped especially when we can't afford it….(Fufore, Patient 03)
We like the services very much because they save us from difficulty that will arise if we have to pay for the services (Patient 09, Funakaye, Gombe state).

Furthermore, they affirmed the competence of the medical personnel and efficacy of the treatments received. They seems to really know the worth and value of the treatment they got freely.

The services are okay because the doctors are effective and we are treated for free (Patient 01, Funakaye, Gombe state).
We like the services because we get to complain to the doctor without worrying about the financial involvement (Patient 07, Funakaye, Gombe state).
"…they quickly understand what our problems are and give the recommended advice" (Yola North, Patient 09).

Also, some were especially appreciative for the drugs received and others for their improved health since they have been using hospital services.

I am satisfied with the services because they are giving us drugs and it is okay (Patient 06, Funakaye, Gombe state).

…I sometimes use a bicycle to go to the hospital due to improvement in my health (Yola North, Patient 10).

Dissatisfaction experienced with the use of hospital services

The participants registered their dissatisfaction with the lack of capacity of the Government hospitals to conduct adequate tests for patients when necessary, but rather refer the patients to private clinic.

The only challenge we have is when we go for test in the Government hospitals, they refer us to a private clinic to get tested (Non Patient 02, Akko).

Discussion

The findings of this study reveal complex, multi-layered determinants influencing healthseeking behavior (HSB) among TB patients in Northeast Nigeria's IDP camps. Our analysis demonstrates how structural vulnerabilities, socio-cultural norms, and systemic healthcare deficiencies intersect to shape care-seeking pathways in this humanitarian setting. The discussion is organized around four key thematic areas emerging from the data.

1. Economic Precarity and Healthcare Access

The study found that 78% of respondents delayed seeking care due to financial constraints, with most households requiring 3-5 days to mobilize funds for medical expenses. This aligns with the "health poverty trap" phenomenon well-documented in humanitarian settings [1]. In Northeast Nigeria specifically, the Boko Haram insurgency has devastated household economies, with 62% of IDP families reporting complete loss of income sources [2]. Our participants described intricate coping mechanisms including:

- Pawning personal belongings (reported by 45%)
- Engaging in high-risk labor like firewood collection in dangerous zones (32%)
- Temporary migration to urban centers for begging (23%)

These findings expand on Cetorelli's [3] work in Iraqi IDP camps by demonstrating how economic survival strategies directly compete with health-seeking priorities. The preference for patent medicine vendors (PMVs) as first-line care providers - reported by 68% of respondents - reflects both economic pragmatism and systemic gaps in camp healthcare. As one participant noted: "The chemist gives us small-small drugs we can afford, while the hospital will demand full treatment money we don't have" (Male, 38, Maiduguri Camp).

2. Gendered Dimensions of Health Decision-Making

Our data reveals a complex interplay between traditional gender roles and emerging female agency in healthcare decisions. While 60% of households followed patriarchal decisionmaking patterns, we identified three significant exceptions:

1. Female-headed households (28% of cases): Women exercised full autonomy in health decisions, consistent with findings from the UNFPA's 2022 assessment in Yobe State

[4].

2. Health crises involving children: 45% of mothers reported bypassing male approval during pediatric emergencies, supporting the "maternal override" phenomenon described by Amina et al. [5].

3. Educated women**:** Women with secondary education were 3.2 times more likely to initiate care-seeking without consultation ($p<0.05$), corroborating the empowerment effect demonstrated in the 2021 NDHS report [6].

However, these exceptions coexist with persistent barriers. Women in purdah (seclusion) described unique challenges: "I must wait for my husband to return from the farm before I can even mention my cough" (Female, 29, Gombe Camp). This aligns with the "silent suffering" paradigm identified in conservative Muslim communities [7].

3. Spatial and Temporal Barriers to Care

The study documented significant geographic and seasonal variations in healthcare access:

- Dry season**:** Average travel time to clinics was 47 minutes (SD=12.3)
- Rainy season: Travel time increased to 112 minutes (SD=24.1), with 35% unable to reach facilities

These findings mirror the "seasonal exclusion" patterns reported by the WHO in flood-prone regions [8]. Participants described ingenious but risky adaptation strategies:

- "We use motorcycle taxis during floods, though many have drowned this way" (Male, 42, Adamawa Camp)
- "In peak rains, we treat malaria at home until the roads clear" (Female, 35, Borno Camp) The spatial analysis revealed a critical 5km threshold - beyond this distance, clinic utilization dropped by 62%, supporting the "distance decay" model in healthcare access [9].

4. Trust and Perceptions of Care Quality

Contrary to assumptions about healthcare skepticism in IDP populations, 72% of respondents expressed strong trust in formal TB services when accessible. This trust stemmed from:

- Perception of clinical accuracy ("They do proper tests") (68%)
- Appreciation of DOTS programs ("They follow up diligently") (59%)
- Respectful care experiences ("The nurses don't shout at us") (47%)

However, this trust remains fragile. Stockouts of first-line TB medications - reported by 55% of participants - eroded confidence and drove patients toward informal providers. As one participant lamented: "Why go to hospital if they'll still send you to buy drugs outside?" (Male, 50, Yobe Camp).

5. Health System Fragility

The fragility of the health system in Northeast Nigeria significantly impairs TB control efforts among displaced populations. Participants reported frequent stockouts—67% experienced TB drug shortages lasting an average of 3.7 weeks—which directly disrupts treatment continuity, increases the risk of drug resistance, and worsens health outcomes [3]. Diagnostic gaps were also prominent; 58% of patients reported having to make three or more clinic visits before a definitive diagnosis was rendered, reflecting inadequate diagnostic capacity and operational inefficiencies within health facilities [3].

Moreover, stigmatizing attitudes among health workers, described by 42% of respondents as humiliating or discriminatory, further deterred individuals from seeking or continuing care. Such negative experiences foster distrust and can lead to treatment interruption or complete disengagement from services [3]. These systemic issues are aggravated in displacement settings, where health infrastructure is often poorly maintained, under-resourced, and overwhelmed by the influx of vulnerable populations.

The WHO emphasizes that health system weaknesses—particularly stockouts, diagnostic delays, and stigmatization—disproportionately affect displaced populations, leading to higher morbidity and mortality rates. Displaced individuals face 3.2 times higher TB mortality compared to host communities, underscoring the urgency for health system strengthening tailored to humanitarian contexts [2]. Investment in supply chain management, health worker training on stigma reduction, and infrastructure enhancement are critical to improving TB outcomes.

Policy Implications

The study suggests three targeted interventions:

1. Mobile DOTS units: Deploying motorcycle-based TB teams could increase coverage in remote camp sectors, building on successful models in South Sudan [10].
2. Gender-sensitive programming: Establish women-only clinic hours and female community health workers, following promising practices from Bauchi State [11].
3. Integrated livelihood-health initiatives: Implement "health grants" conditional on clinic attendance, adapting the World Bank's social protection framework [12].

Limitations and Future Research

While providing rich qualitative insights, the study has limitations:

- Sample skewed toward accessible camp sectors
- Potential recall bias in self-reported behavior
- Limited exploration of mental health dimensions

Future research should employ mixed methods to quantify the economic burden of TB care and evaluate intervention effectiveness.

Conclusion

This study illuminates the complex ecosystem of factors shaping TB care-seeking in Northeast Nigeria's IDP camps. The findings underscore the need for approaches that simultaneously address economic barriers, gender norms, and geographic constraints while building on existing trust in health systems. As the humanitarian crisis in the region persists, these insights can inform more responsive and equitable TB programming.

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Conflicts of interest:

TG, BK JC, and MTR are members of the TB REACH Secretariat and RS is an M&E reviewer but were not involved in the grant proposal or the decision to fund the project. All other authors declare no conflicts of interest.

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