

“I lost close friends when they realized I had TB” – The lived experiences of TB patients in Nairobi City County, Kenya

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Research article

Keywords: Stigma, Tuberculosis, pill burden, perceptions, social support, Kenya

Posted Date: June 20th, 2019

DOI: <https://doi.org/10.21203/rs.2.10433/v1>

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Abstract

Background Tuberculosis is a global public health problem with serious health and social implications which produce unique experiences for the patients. Understanding the lived experiences of TB patients is important for appropriate and successful TB interventions. Unsuccessful treatment has grave public health consequences at individual and community levels. Methods Qualitative study using 40 narratives of TB patients, 40 home observations, and key informant interviews with 4 TB health care providers using an interpretive phenomenology. The 40 TB patients were interviewed twice, first at the healthcare facility with a follow-up interview in their homes. Results Socio-economic, structural and medication related factors shape the experiences of TB patients. Social factors such as stigma, lack of family and other social support influence the lived experiences of TB patients. TB treatment challenges such as side effects and financial constraints also shape the experiences of the patients. Although there is good patient-healthcare provider relationship, patients have to deal with long treatment regimens and the long queues when seeking treatment services in health facilities. Conclusions TB management programs should account for factors that influence the lived experience of TB patients to facilitate effective treatment. Many of these factors are barriers to effective treatment and management TB patients. Provision of social and family support, addressing stigma, counseling and addressing structural barriers may influence the patients' positive experience and promote treatment adherence for successful TB management.

Background

Tuberculosis (TB) is a global public health problem afflicting millions. TB patients experience various health and social challenges which have serious implications for their treatment outcomes. TB is one of the leading causes of morbidity and mortality in the world, especially in resource-poor settings. An estimated two billion people are infected with *Mycobacterium tuberculosis*, the TB disease causing bacteria, with roughly eight million of them developing TB and a mortality of about three million every year.[\[1\]](#)

Resource-poor countries, particularly in sub-Saharan Africa, contribute to more than 80% of TB morbidity and mortality.[\[2\]](#) Early TB diagnosis, treatment and notification is important in the control of TB. In Kenya, the notification rates of TB cases have increased significantly in the past 2 decades especially in urban areas, an increase attributed to the impact of HIV/AIDS.[\[2\]](#) Major urban areas including Nairobi have the highest TB prevalence rates compared to other parts of the country.[\[3\]](#) [\[4\]](#) This may be attributable to the social environment associated with urban areas that produce favorable TB transmission contexts such as poverty, overcrowding, and poor housing among others.

Although Kenya subscribes to the internationally accepted WHO's Directly Observed Therapy (DOT) strategy and tuberculosis regimens[\[5\]](#), the efforts have had little impact on TB prevalence in Nairobi City

County and elsewhere. Consequently, over the years there has been a substantial increase in the number of people living with TB. Most of them are found in poor urban settlements in Nairobi[6], a situation complicated further by co-morbidity with HIV in TB patients.

TB diagnosis in some patients is not straight forward requiring x-rays, sputum and occasionally culture to isolate the bacteria. The current treatment regimen is a minimum of six months of daily pills. Often TB patients have other co-morbidities such as HIV that require daily treatment. As a result, the pill burden and side effects for some individuals is of great inconvenience which effectively affect adherence. Patients' experiences dealing with TB against the backdrop of other competing interests such as the need for affordable housing, food and other essential needs conspire to shape their quality of life. The social environment shapes the lived experience for TB patients and may dictate how they cope. Although TB services in Kenya are offered free-of-charge in public health facilities, there are embedded costs such as for traveling and food. Further, TB is stigmatized both the household members, community and service providers. The situation is compounded if the same person has HIV or is suspected to have HIV. The experience of stigma may affect how patients cope with TB disease (symptoms), psychologically and how treatment is sought and sustained. Stigma maybe perceived or actually experienced manifesting as discrimination. This study describes the lived experiences of TB patients in Nairobi City County.

Methods

Research Design

The study used a qualitative research design guided by interpretive phenomenological approach which enabled a good interpretation and understanding of the patients' experience from their perspective, hence uncovering the subjectively complex experiences and perceptions.[7] Interpretive phenomenology helps reveal and interpret underlying meaning in a lived experience.[8] Interpretive phenomenology helps understand subjective realities through researcher's interpretation of participants' lived experiences and meanings they ascribe to the experiences.[9] This combination facilitated an interpretation of the patients' subjective experience with TB.

Informants and Sampling

Data was collected from patients attending two health facilities in Nairobi: Mbagathi Hospital and Ngara Health Centre. Recruitment to participate in the study was subject to meeting the inclusion criteria thus—clinically diagnosed TB; at least on third month of treatment; lived in Nairobi; and at least 18 years old. The sample was made up 20 TB patients from each facility for a total of 40 patients.

Every fourth patient queuing for services was selected for the interview. In case the patient did not meet the criteria of inclusion or did not consent to participate, replacement was done by selecting the next patient on the queue. Recruitment was conducted over several days until 20 patients in each facility were interviewed. After the interview, the patients went back to their position in queue.

Each of these patients was informed prior to recruitment that there would be a follow-up interview conducted at their homes. The follow-up interviews clarified emerging issues from the first interview but also allowed for direct observations in the patient's home. Thus, together, a total of 80 interviews were completed- two for each patient. Two key informants (a clinical officer and a nurse) were purposively selected and interviewed from each health facility.

Data collection

The patients were asked to narrate their experience with TB in terms of treatment, interaction with family, healthcare providers, and the community, thereby describing their experiences. Interviews were conducted in Swahili language. During the home visits, an observation checklist was used to record the conditions under which TB patients lived which was later linked to the narratives. The Key Informant interviews focused on themes surrounding TB treatment and management.

Data analysis

The interviews were transcribed verbatim and translated into English. Codes and themes were generated from the transcripts through inductive content and thematic analysis. Analysis entailed searching for recurrences of the coded text within and across the narratives. Data from the observation checklists were summarized according to core themes and then linked to the narratives.

Ethical Considerations

The study obtained ethical approval from the Kenyatta National Hospital/University of Nairobi Ethical Review Board (Ref. No. P635/10/2015). Prior to recruitment, both oral and written informed consent was obtained from the patients and healthcare providers. All identifiers were removed to protect informants' confidentiality. The researchers liaised with the hospitals' management for counseling services for those patients who needed further support. However, none of them was referred.

Results

The demographic information of the respondents is reported in Table 1. The narratives, interviews, and observations identified several factors that shape the lived experience of TB patients. These factors are socio-economic, structural and medication-related factors.

Socio-economic factors

Stigma

The TB patients live in a social environment characterized by stigma. Patients revealed experiencing stigma which affected the way they cope with treatment. The following two quotes from patients in Ngara (aged 36 years) and in Kibera (aged 30 years) bring out the reality of stigma.

"I lost close friends when they realized I had TB. I can say that the reason why they left me is because they did not want to be associated with sick people like me. However, I did not lose hope and I am hoping that I will heal so as to revive the relationships although I am not sure that they will accept me back."
(Patient-22, Female, 36 years, Ngara)

"People fall sick but with TB, this sickness is not normal. It is the worst experience because every time I walk in the estate, people start speaking in undertones while whispering. I feel uncomfortable because I know they say bad things about me yet I did not choose to be sick. I only get relief from my husband and children who understand me well." (Patient-05, Female, 30 years, Kibera)

This is further reinforced by the sentiments of the healthcare providers. Consider the following quote.

"There is a lot of stigma attached to TB. In fact, one of the barriers to treatment and the reason why some patients may default is because of stigma. People in the society do not want to be associated with TB patients because they think that they will get infected. People need to be educated about TB to reduce stigma and include the patients in the society."(P01-Clinical Officer, Female, Mbagathi Hospital)

The above excerpts from patients' narratives indicate that their interactions are riddled with stigma. These negative experiences are not perpetuated by friends and community alone. The family, like the community, also perpetuates stigma. Their actions against the patients are suggestive of the underlying

feeling of fear, shame, or dishonor. Consider the following two quotes from a patient and another from a healthcare provider.

"When my mother brought me to the hospital and doctors came with positive TB diagnosis, she bought cups, plates, and other utensils specifically for me. This was despite the fact that the doctor said the diagnosis was done early enough and my mother should not worry about risk of infection to others. That is when I felt that although she was trying to be careful, she regarded me as a threat already and feared my encounter with others." (Patient-10, Female, 26 years, Ngumo)

"There is a 24-year-old boy who came here and we started him on TB treatment. When he went home, the boy was separated. He was told to start living alone in a different room for almost two weeks. When he came next he said that the family members are asking whether he can join them in the main room. So we wondered where he had been living and he said that they had separated him. This means there is still fear. He did not go on well. He even refused taking the drugs and we could not follow up on him anymore. He ran away from the family." (P02-Nurse, Female, Mbagathi Hospital)

Fears and misconceptions on TB causes and transmission:

Certain beliefs and perceptions on TB were found to also shape the patients' experience. These perceptions, knowledge, fears and stereotypes that form TB etiology perpetuate stigma. This was particularly evident in the connection between TB and HIV/AIDS. Although TB can occur independently of HIV, most people believe that it is caused by HIV/AIDS. It was found out that TB patients were perceived to have HIV/AIDS and were thus seen within the lenses of HIV carriers and with the capacity to not only infect others with TB but potentially also with HIV. The following is an excerpt from a key informant interview on the issue of TB and HIV/AIDS.

"Most think that if one has TB, he/she has HIV, but which is true mostly because 60% of TB patients have HIV. But usually when the patients get TB they think they have HIV. They are scared because of the stigma." (P01-Clinical Officer, Female, Mbagathi Hospital).

The narratives from the patients showed that the perceived link between HIV/AIDS and TB shapes people's attitudes towards TB patients.

"People say that TB does not come alone; it comes with HIV/AIDS. Thus, when you see people avoiding you when they know you have TB, they suspect you have HIV/AIDS. It makes you feel labeled and bad especially when you know that you do not have AIDS. Even if you have HIV/AIDS, it is a disease like any other and people should not discriminate against you because of that." (Patient-02, Male, 40 years, South-C)

The reality of the TB-HIV/AIDS co-infection is demonstrated by instances when patients not only fail to disclose their TB status for fear of losing friends but also when reality comes out, they actually lose intimate partners because of fear of infection. This is captured by Patient 11, a male of 28 years attending clinic at the Mbagathi Hospital.

"I had a female partner when I was working in town. One day, she saw me take TB drugs and I confessed that I had TB. I had not told her before that I had TB since I feared that she would leave me. She told me that TB is normal. After some time, she left me for another man. When I asked her friend why she left me, I was shocked by the response. Apparently, she thought I had HIV when she learnt about my TB status." (Patient-11, Male, 28 years, Mbagathi Hospital)

Apart from HIV/AIDS connection, TB stigma is also embedded within the perceptions regarding its supernatural cause.

"Some say that it is Chira (curse) and believe that they have to contend with this Others say that it is inherited; that TB runs in the family. So they think that it is genetic. Others think that it is a myth. So some of them go to witchdoctors because they believe they have been bewitched. Some of those we put on treatment say that TB is about sorcery so they must go home to see a sorcerer." (P01-Clinical officer, Female, Mbagathi Hospital)

TB patients are isolated because TB is thought to be a result of transgression leading to a curse. Patients are thought to have sinned and, therefore, subjected to isolation that fuels stigma. Other beliefs and stereotypes that people have in relation to TB add weight to TB patients' experience as illustrated by the statement of one female patient.

"People in the estate say that I will not bear children anymore because I have TB. Although I know this is not true, it is a negative statement especially when you hear people say it in your presence." (Patient-32, Female, 31 years, Ngara Health Centre)

Thus, people's beliefs and perceptions on the cause of TB and its consequences influence the TB experience since some patients are labeled and isolated.

Weak social and family support

TB patients tend to have weak social and family support, partly attributable to the impact of stigma. The excerpt below illustrates the experience of declining social and family support.

"I live alone. My wife ran away and I depend on my uncle since I cannot resume work because of sickness. My uncle does not give me money to buy food and does not support me. He does not care about me at all. When I borrow money from other people, they say that I am a bother so I just decide to stay with my hunger." (Patient-16, Male, 46 years, Kibera)

The impact of perceptions and stigma also contribute to weak family and social support. Due to stigma, patients get isolated without being supported. The case of the 24-year old boy cited above reveals weak family support. Similarly, patients face declining social support due to perceptions as exemplified below.

"... when the [TB] results came positive, people started saying that it was a curse from my grandfather because I refused to name my baby after him. Others started saying that my enemies had bewitched me and they avoided me. This really scared me since in our culture, people do not associate with the cursed and the bewitched lest they fall in the same [misfortune]. However, the doctor told me not to worry about it...." (Patient-05, Female, 30 years, Kibera)

Financial constraints

Although TB services are free in public health facilities, patients cited financial constraints in meeting the demands of treatment. For example, accessing the health facilities made patients incur transport costs and the prescribed drugs require them to have sufficient food before taking the drugs as shown in the following quote.

"After talking to me... the doctor advises me to eat well because the drugs cannot be taken with an empty stomach. When you take the drugs before eating, you feel dizziness and you cannot work." (Patient-11, Male, 41 years, Dagoretti)

Most of the patients interviewed were either unemployed or engaged in businesses with low income. As such they are faced with financial challenges making it difficult to get essentials such as food. At times, patients have to weigh between eating as instructed by the health care provider or letting the children eat first when there is food scarcity. Consider the following quotes:

"Sometimes it is hard to eat well because, as you know, good food requires money. So I am unable to eat according to the doctor's advice and I think that is why I experience headaches. When I do not have enough food, I do not take the drugs to avoid more headaches." (Patient-07, Male, 26 years, Mbagathi Hospital)

"I have two children who need to eat but the doctors tell me to eat well too. I spend the little money I have on food and when there is no money to buy enough food, I let the children eat first.... I postpone taking the drugs until when I get enough food. You may collapse if you are hungry and take the drugs like that [when hungry]." (Patient-32, Female, 31 years, Ngara Health Centre)

"...when my husband died in 2005, I was left with no stable means of income. I had six children to take care of but two died along the way. Feeding myself and the remaining ones became a problem because I was also falling sick from time to time. I opened a kiosk to sell mandazi [buns]. This is the business that has sustained me with little income although I do not make sales when I am sick. When I was very sick last December, I went to the hospital and they told me I had TB and put me on treatment. I still rely on the small business and well-wishers for food and other necessities." (Patient-06, Female, 46 years, Kibera)

The direct observations also showed that most of the patients lived in Nairobi's sprawling informal settlements. Out of the 40 patients interviewed and followed at their homes, 29 lived in informal settlements within Nairobi. These areas are densely populated and housing is in bad condition and poorly ventilated, posing the risk of spread of TB including re-infection especially in the event of defaulting. The possibilities of infecting others are even more pronounced given that the average number of people living

with the patient in the same room/housing was five (range = 1 to 9 members). This perpetuates the cycle of disease burden.

Interaction with healthcare providers

The relationship between the TB healthcare providers and patients positively shaped the experience as patients reported having good and fulfilling interaction with the care givers. When asked about the experience in the consultation rooms, patients responded that there is warm reception in each visit and healthcare providers are mindful of patients' needs and welfare. The patients cited creating good rapport with the healthcare providers. The latter also listen, care and support the patients emotionally through encouraging and advising them accordingly. These views are captured by the patients below:

"The health care providers here are good people who treat us like their own people and they seem to understand my culture well. In addition, I get TB drugs every time without being turned back." (Patient-31, Female, 28 years, Ngara Health Centre)

"They [healthcare providers] are very understanding people here...Most of them are my friends now." (Patient-34, Male, 32 years, Huruma)

The patients are also happy with the friendliness and confidentiality demonstrated by the health care providers as exemplified by this female patient.

"The doctor answered all the questions I had and was very pleased with her friendliness. She knows how to keep secrets." (Patient-06, Female, 46 years, Kibera)

These apparent good relationships with healthcare providers also extended to the community healthcare workers (CHWs). The community healthcare workers visited the sick in their own home and encouraged them to take their drugs as prescribed.

"There is one [CHW] who visits me at home. She is concerned about me and encourages me to take the drugs even when I feel like giving up. I do not let her down." (Patient-39, Female, 28 years, MlangoKubwa)

"My sister [the CHW] here even calls me sometimes to know how I am doing. Yeye ni kama daraja yangu na hospitali [She is the bridge between me and the hospital]." (Patient-13, Female, 30 years, Highrise)

The healthcare providers cited passion for caring for the patients and showing empathy.

"You look at patients and you cannot afford to be rude. We also have to follow the ethical code of conduct and respect the patient." (P03-Clinical Officer, Male, Ngara Health Centre)

"Some of them [patients] have come here many times and we even know their names. One way to help them is to show them love and care and that is what we do. They can lose hope if not supported well." (P02-Nurse, Female, Mbagathi Hospital)

Structural factors

Despite the good relationship with healthcare providers, patients cited delays in service provision. Findings indicate that patients make long queues and wait for a long time before being attended to, which distorts their work schedules substantially. This is exemplified in the quotes below.

"It becomes tricky when I have to go to the hospital to pick the drugs and I have to report to work at the same time. When I come to pick the drugs, I get late at work but my boss understands." (Patient-27, Female, 30 years, Eastleigh)

"... like today, I came here at 7.30am. Look it is now 11.30am and they [healthcare providers] have gone for a break. You feel like going away without the drugs since you have other things to do." (Patient-09, Male, 36 years, Mbagathi Hospital)

One key informant confirmed these sentiments.

"We also get overwhelmed. We are few and there are many patients to be attended to." (P04-Nurse, Ngara Heath Centre)

Delays in service provision are compounded by inconveniences that patients may go through when certain health facilities have to make referrals.

"Some facilities lack enough TB drugs and therefore refer some patients here [Mbagathi] and some may not even bother to come because of the inconvenience." (P02-Nurse, Mbagathi Hospital)

"I can go to get drugs or other services in other facilities close to my place but I come here [Mbagathi] directly because those other facilities may not give me what I want." (Patient-01, Female, 31 years, Mbagathi Hospital)

Medication-related factors

TB treatment is challenging for the patients, as they have to contend with various undesirable treatment effects. The treatment is for a period of 6 months and patients find it difficult to adjust to daily intake of TB drugs. The patients reported challenges such as high pill burden, long duration regimen, and the side effects of the drugs. Patients feel burdened by the drugs as attested by the following quote from a healthcare provider.

"TB treatment takes a long duration, you find them defaulting, it is like they have lost hope. So they need to be counseled for them to take the medicine for the needed duration. Patients also feel burdened. TB drugs are like five drugs in one but the government has tried to put them in a fixed dose combination." (P01-Clinical Officer, Mbagathi Hospital)

The healthcare providers' views are given credence by the patients' narratives. They cited the cumbersome nature of taking the TB drugs because of the long duration regimen.

"I was told that TB treatment takes six months, and I felt that it is a long time. Now I have gotten used to them although it is difficult because you have to carry the drugs when you are travelling." (Patient-26,

Male, 37 years, Ngara Area)

"For my case, to say the truth, I take the drugs because the doctors and people who observe me insist. If I were let alone, I would quit because the drugs can really burden you." (Patient-29, Male, 21 years, Ngara Health Centre)

Alongside the long duration regimen and the high drug pill, patients also face the challenge of the drugs' side effects. One healthcare provider confirmed the issue of drug effects as demonstrated by the following quote.

"The side effects they can get include the skin cutaneous hypersensitivity (they start itching all over the body) because the drugs can cause this. They also get jaundice, abdominal cramps, peripheral neuropathy (affects the nerves especially when they lose vitamin B6), severe joint pains and patients are unable to walk. They can pass reddish urine. But we tell them that this is normal because when the drug is excreted, the color of the drugs comes out. But it really scares them." (P01-Clinical Officer, Female, Mbagathi Hospital)

The side effects interrupt the patients' normal lives and may lower the quality of daily life for the patients as well as affecting treatment adherence.

"They may have TB drugs, Septrin®, and antiretroviral drugs so they feel burdened. This may make them to default. They can even choose which drugs to take among those because they say that they feel more sick when they take certain drugs. So they may choose to take the ones that make them feel better. So the issue of side effects becomes major. The side effects are many. When they get the side effects, it becomes difficult to continue with medication." (P03-Clinical Officer, Male, Ngara Health Centre)

"... I was about to quit taking the drugs because it was cumbersome to take the drugs each day. It becomes boring and sometimes disgusting especially when I experience unbearable headaches and dizziness." (Patient-07, Male, 26 years, Mbagathi Hospital)

Discussion

compass stigma, lack of family and social support, and financial constraints. The structural factors include the interaction between the healthcare providers and the patients on one hand and delays in service delivery on the other hand while medication-related factors are linked to the high pill burden, side effects and long regimen. These factors, in various combinations, produce patients' lived experience that is constructed in their own voices.

Stigma has a negative effect on patients' experience; it creates an environment in which they are labeled and isolated. This has a dramatic consequence on how patients cope. Due to stigma, there is a decline in support from the family and the community in general.^[10] Withdrawal of support for the patients creates an environment conducive for poor treatment adherence. Stigma from family and community contributes to medication default among the patients. It also plays a role in discouraging the patients and erodes support for sustained treatment. Stigma is a critical barrier to TB treatment and management. There is universal stigma attached to TB.^[11] In their study in Nairobi, Essendi and Wandibba have shown that there is TB-linked stigma and that it is a barrier to care seeking.^[12] Further, it contributes to the worsening of the quality of life for TB patients.^[13] Thus, the patients' fears are not unfounded. Stigma adversely shapes patients' experience in TB treatment and recovery by placing barriers to quality of life and healthcare access and utilization.^[14]

The impact of stigma on TB is exacerbated by the TB-HIV/AIDS link and perceptions regarding its etiology. HIV/AIDS is itself highly stigmatized, thus its link with TB adds another layer of stigma which effectively negatively shapes the experience of TB patients since it is assumed that TB patients also have HIV.^[15] In addition, the co-infection with HIV is also independently associated with poor treatment adherence. Perhaps this is caused by the experience of high pill burden that is common in TB-HIV co-infection as well as a combination of side effects. Having TB is also subject to local perceptions and stereotypes on TB which aggravates the impact of stigma. Association of the cause of TB with witchcraft and other supernatural causes creates new labels and isolation of patients, thereby lowering the quality of life and self-worth. Stigma from TB made some patients prefer death to social rejection.^[16] TB is linked to family rejection and loss of friends as demonstrated in this study.

Patients also face financial constraints despite the free provision of TB services in public health facilities. Often, TB patients are poor and even those in employment might lose work days and their jobs altogether and their total livelihood. The financial constraints dictate how patients deal with TB treatment. Lack of money to buy food was identified as one of the barriers to adherence. In this study, most patients interviewed did not have stable and adequate income and worked in small-scale businesses and reported

financial strain in sustaining treatment requirements like adequate nutrition. Due to shortage of food, some patients skipped medication to avoid the side effects. In several studies, financial constraint or low income has been cited as one of the experiences in treatment that lead to default. [17] [18] 5

Kenya adopted the internationally recognized and WHO-recommended Directly Observed Treatment (DOT) strategy as an effective TB treatment strategy. 5 The strategy requires patients to observe treatment for at least 5 months without default. 5 1 This illustrates the long regimen that the patients in the study cited as cumbersome and negatively shapes their experience. Previous studies into the impact of the long regimen have indicated default and lowering quality of life.[19] [20] High pill burden especially in case of co-infection (with HIV) further affects patient's daily life as they feel burdened. Concomitant treatment leads to a higher pill burden.¹⁷ Drug-drug interactions, paradoxical reactions and overlapping drug toxicities complicate concomitant patients' life and treatment[21] [22]. This is well exemplified by the well documented drugs' side effects. Most patients cited undesirable experiences. The side effects of TB drugs have been cited as one of the factors that lowers the quality of life for TB patients.[23]

Due to inherent weakness in the health care system in Kenya in general, system challenges affecting TB patients and quality of care are abound. Observed and comprehensive care would reduce the challenges patients face using TB drugs. In this study, patients reported a good relationship with the healthcare providers. Many patients attributed their good progress to the good relationship with the healthcare providers and community health workers. Lack of provider support frustrates patients and is a barrier to treatment adherence.¹⁶ However, despite the good relationship between the providers and patients, there was a gap identified in service delivery. Many patients cited long waiting time in the queues as a problem. This may exclude them from participation in income generating activities thus further perpetuating their economic disempowerment and at the same time affect treatment outcomes.

Conclusions

The study provides insights into the lived experiences of TB patients in Nairobi City County. They face stigma, financial constraints and lack adequate family and social support. Further, although the patients experience good relationship with healthcare providers, they face delays in service delivery. TB management programs and practices must be cognizant of the factors that shape the lived experiences of TB patients in order to have meaningful impact on their well-being. The lived experiences of TB patients have wider implications on treatment and healing. Thus, there is need to focus on how their experiences influence treatment and healing.

Abbreviations

TB Tuberculosis

WHO World Health Organization

MOH Ministry of Health

Declarations

Ethics approval and consent to participate

This research received ethical clearance from Kenyatta National Hospital/University of Nairobi (KNH/UoN) ERC (Ref. No. P635/10/2015). Written consent was sought and obtained from all respondents.

Consent for publication

Not applicable

Availability of data and material

Data generated or analysed during this study are included in this published article. Further datasets used and/or analysed during in the study are available from the corresponding author on reasonable request.

Competing interests

The authors declare no that they have no competing interests.

Funding

This study did not receive funding from external sources.

Author contributions

AMG conceptualized the study with help and supervision from IKN. AMG developed the tools, collected, analyzed data and drafted the manuscript. IKN and AKZ reviewed and revised the manuscript. All authors have read and approved the final manuscript.

Acknowledgements

This research was carried out in Nairobi City County. We thank patients and health care providers in Mbagathi Hospital and Ngara Health Center for allowing us to interview them. The support of the Institute of Anthropology Gender and African Studies, University of Nairobi is acknowledged.

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Tables

Table 1: Demographic Characteristics of Respondents

Characteristic	Number	Percentage
Sex		
Female	17	42.5
Male	23	57.5
Total	40	100.0
Age group		
18-29	17	42.5
30-39	14	35.0
40 +	9	22.5
Total	40	100.0
Health facility		
Mbagathi	20	50.0
Ngara Health Centre	20	50.0
Total	40	100.0
Residence		
Slum	30	75.0
Non-slum	10	25.0
Total	40	100.0

Figures

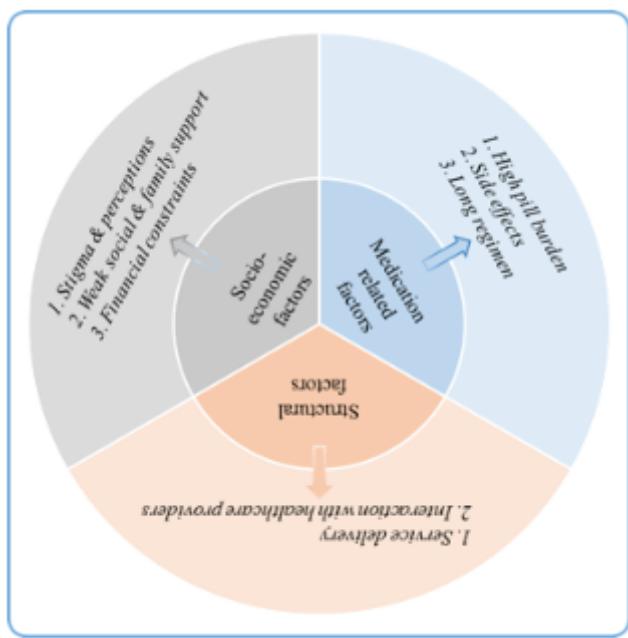


Figure 1

Themes highlighting the patients' lived experience