Socio-Cultural Factors Associated with Patient Delay in Commencement of Anti-TB Drugs among TB Patients in Kwale County, Kenya

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Abstract

INTRODUCTION

Worldwide, TB is one of the top 10 causes of death and the leading cause of death from a single infectious agent. The disease is spread across all countries and affects all age groups. Tuberculosis (TB) is caused by bacteria (Mycobacterium tuberculosis) that most often affect the lungs. In Kenya, a nationwide survey to determine the burden of TB in the country established that the prevalence of TB is 558 [95%CI 455–662] per 100,000 adult population, an increase from the 2015 prevalence of 233/per 100,000 population. Studies have also shown that in Kenya, the cases of multi-drug resistance TB are increasing. This can be attributed to delay in TB treatment by newly confirmed TB cases among other factors. This paper sought to establish the socio-cultural factors associated with delay in commencement of ant-TB drugs among TB patients In Kwale County, Kenya.

MATERIALS AND METHODS

This was a qualitative study. Data was collected from Volunteer Community Health Workers as Key informants and analyzed using Framework and thematic analysis methods.

RESULTS

Socio-cultural factors associated with patient delay in commencing TB treatment among newly diagnosed TB patients include; socio-stigma, disputing a positive TB test, seeking alternative traditional treatment, beliefs in witchcraft, belief that TB is inherited from forefathers, religious beliefs, and buying incorrect drugs over the counter.

CONCLUSION

Health education on the causes and treatment of TB should be conducted intensively in Kwale County to help dispel socio-cultural myths and stigma associated with TB illness and treatment in the County.

Keywords: Treatment Delay, Tuberculosis, Socio-cultural factors

Introduction

Worldwide, TB is one of the top 10 causes of death and the leading cause of death from a single infectious agent. The disease is spread across all countries and affects all age groups. Tuberculosis (TB) is caused by bacteria (Mycobacterium tuberculosis) that most often affect the lungs. The disease is curable and preventable and is spread from person to person through the air. When people with lung TB

cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale only a few of these germs to become infected. About one-quarter of the world's population has latent TB, which means people have been infected by TB bacteria but are not (yet) ill with the disease and cannot transmit the disease. People infected with TB bacteria have a 5–15% lifetime risk of falling ill with TB. Persons with compromised immune systems, such as people living with HIV, malnutrition or diabetes, or people who use tobacco, have a higher risk of falling ill (1).

In 2018, an estimated 10 million people fell ill with tuberculosis (TB) worldwide. Thirty high TB burden countries accounted for 87% of new TB cases. Eight countries account for two-thirds of the total, with India leading the count, followed by, China, Indonesia, the Philippines, Pakistan, Nigeria, Bangladesh and South Africa. A total of 5.7 million men, 3.2 million women and 1.1 million children. In the same year, a total of 1.5 million people died from TB of which 205,000 deaths were of children. WHO further acknowledges that child and adolescent TB is often overlooked by health providers and can be difficult to diagnose and treat. In 2018, Multidrug-resistant TB (MDR-TB) remains a public health crisis and a health security threat. WHO estimates that there were 484,000 new cases with resistance to Rifampicin – the most effective first-line drug, of which 78% had MDR-TB (1).

In Kenya, a nationwide survey to determine the burden of TB in the country established that the prevalence of TB is 558 [95%CI 455–662] per 100,000 of the adult population, an increase from the 2015 prevalence of 233/100,000 population (2). The highest disease burden was reported among people aged 25–34 years (716 [95% CI 526–906]), males (809 [(95% CI 656–962]) and those who live in urban areas (760 [95% CI 539–981]) (3). Kenya is listed by the World Health Organization (WHO) among the 30 high-burden TB states and despite the considerable investment done by the government and partners in TB care and prevention in the past 20 years, the disease is still the 4th leading cause of death in the country (3). Studies have shown that Kenya is also one of the countries with a rising prevalence of MDR-TB (4). HIV and TB are synergistic, with HIV increasing the incidence of TB and TB associated with increased mortality among PLHIV, and as an indicator of AIDS-defining illness. The risk of TB infection is 16-27 times greater in People Living With HIV (PLHIV) than in the general population (2). In Kwale County, the study area where this study was conducted, the HIV/TB coinfection rate is 24% (2).

The good news about TB is that it is curable and preventable. Early detection and treatment of TB cases have been a priority in the prevention and control of TB (5). This has brought down TB incidence by 2% annually. WHO estimates that about 58 million lives have been saved through TB diagnosis and treatment between 2000 and 2018. This trend, however, is under threat from two critical factors regarding TB Prevention. One; is misdiagnosis or not identifying true positives early enough to put them on treatment. A survey conducted by Otieno et al (4) indicated that half of those who fall ill with TB in Kenya are not diagnosed. Two; delay in treatment of diagnosed TB cases. Studies have shown that a delay in the treatment of TB, not only increases the risk of transmitting the infection to healthy people, but also leads to an increase of multi-drug resistant TB (6). Delay to TB treatment can be categorized into 1) patient delay that constitutes time elapsed between onset of TB symptoms and first self-presentation to formal care, 2) provider delay as time elapsed between the first presentation to formal care and anti-TB treatment initiation and 3) total delay as time elapsed between onsets of

TB symptoms and anti-TB treatment initiation (5). While progress has since been recorded, failure to address those two drivers will contribute to new TB infections and increase the burden of TB in the world.

This paper sought to establish the socio-cultural factors associated with patient delay in the commencement of anti-TB drugs among TB patients in Kwale county, Kenya. Kenya is one of the countries that have adopted the WHO guidelines on TB/HIV care by integrating services, effective patient-centred prevention, early detection and prompt treatment. It will not be possible to effect prompt treatment without understanding the factors behind the delay in treatment. This study sought to fill this gap.

Materials and Methods

This was a cross-sectional study design that collected qualitative data. Data was collected from Volunteer Community Health Workers (CHWs) as key informants working in the ministry of health in Kwale County, Kenya. We sampled the key informants purposively based on the researchers that they possessed specific information on the socio-cultural issues associated with delay in commencement of TB treatment among TB patients in this area. The principle of data saturation was applied to determine representative sample size. Data were collected until saturation from a total of 10 key informants, using an interview guide. Analysis was done using the framework and thematic methods. We created a matrix of emerging themes on one end against participant responses, and the other end, using NVivo software. Data were subsequently analyzed thematically. Ethical approval was sought from the University of Eastern Africa Baraton research Ethical Approval committee. This study was conducted according to the requirements of the Helsinki declaration.

Results

A total of seven thematic areas emerged. These include; socio-stigma, disputing a TB test, seeking alternative traditional treatment, belief in witchcraft, belief that TB is—inherited, religious beliefs, and buying incorrect drugs over the counter.

The following is data from the key informants;

Theme A: Social stigma

"Majority of TB patients fear they will be isolated by loved ones because TB is associated with HIV/AIDs". Key Informant No 2. 3, 4

Theme B: TB patients dispute a positive TB diagnosis

"Some TB patients think that the doctor/health worker made a wrong diagnosis hence they do not take drugs as fast as recommended". Key Informant No 4

"Some think it's asthma or chronic bronchitis hence they ignore starting anti TB drugs early". Key Informant No 6

"Others think that the cough associated with TB is as a result of excessive cigarette smoking hence they do not need treatment". Key Informant No. 5

Theme C: Seeking alternative treatment

"Some TB patients believe that taking herbs is more effective than modern TB treatment". Key Informant No 2, 3, 6, 7

Theme D: Belief in witchcraft

"Some TB patients believe they have been bewitched and ignore all medical advice and seek a solution from witch doctors". Key Informants No 3 and 4

Theme E: Belief that TB disease is a result of inheritance and curse from fore-fathers

"We inherited this disease and it runs in our families" Key Informant No 3

"This disease is a curse from God or our ancestors for not appeasing them" Conducting our rituals will cure the disease, not TB drugs". Key Informant No 8

Theme F: Religious beliefs

"Prayer can heal TB not Tb drugs". Key Informant No.8

"I do not believe in the conventional treatment of TB, only faith can heal TB disease". Key Informant No. 4, 5, 6

Theme G: Buying drugs over the counter

Some TB patients buy drugs over the counter to treat their chronic cough and are thought to be easier and cheaper than visiting TB clinics which waste a lot of time to get diagnosis and treatment". Key Informant no. 3

Discussion

Seven thematic areas identified the socio-cultural issues influencing delay in the commencement of TB treatment. These include; socio-stigma, disputing a positive TB test by patients, seeking alternative traditional treatment, beliefs in witchcraft, and that TB is inherited, religious beliefs, and buying drugs over the counter. In Kenya, TB research indicates that TB patients are stigmatized in many communities. This is because TB has always been associated with the Human Immunodeficiency Virus (HIV) (7). For fear of stigmatization, newly diagnosed TB patients would avoid visiting health facilities to seek TB treatment and this could cause a delay in treatment. Disputing any diagnosis is a potential reason for not seeking treatment simply because the sick person does not believe that they are sick. The fact that the majority of TB patients in Kwale County believe that they cannot be suffering from TB even when the results turn out to be positive, is a potential source of delay in TB treatment. Seeking alternative treatment popularly referred to as '*miti shamba*' is another way of deferring modern TB treatment, which in turn can lead to a delay in starting TB treatment. Beliefs in Witchcraft will also contribute to the delay in commencing TB treatment, because sick people will pursue witchcraft to treat the illness, instead of taking the recommended medication.

Believing that TB is inherited, makes community members treat the disease as a normal occurrence and the urgency to seek treatment may not be there, hence contributing to delays in seeking treatment. Belief in religious miracles has also influenced health-seeking behaviours in many communities living in Kenya and the larger region. It is common to find people seeking recovery from illness through 'church miracles' performed by their religious leaders. Beliefs in such miraculous healing, explain why newly diagnosed TB patients would fail to seek TB promptly and thus leads to the delay in treatment. Lastly, self-medication has been reported as a serious problem, influencing health-seeking behaviours negatively in resource-poor countries. The habit of seeking over-the-counter drugs without a doctor's diagnosis is rampant in Kenya and the region. This explains why many TB-positive patients will remain undiagnosed because they have been treating TB symptoms using over-the-counter drugs. This in turn has the potential to delay TB treatment, as they are not aware they have TB.

Previous studies have produced evidence suggesting that socio-cultural factors

contribute to delays in TB treatment in different parts of the developing world. A study in Montenegro indicates that patients that have a negative attitude toward TB, can be interpreted to mean not accepting a positive TB diagnosis causing a delay in commencing TB treatment (8). Another study conducted in Southern Ethiopia identified seeking non-formal treatment as a major cause of delay in TB treatment (9). A study conducted in Addis Ababa to identify factors leading to delay in TB treatment identified stigma against TB patients as another major cause of delay in TB treatment (10). Stigma against TB patients has also been identified as a key social determinant of health-seeking behaviour among TB patients, especially in causing a delay in seeking and adhering to treatment in countries with a low incidence of TB (11) and (12). In Zambia, a study investigating the effect of stigma on TB treatment also identified delay and adherence to TB treatment as one of the effects (7). A study conducted among the pastoralist communities in Ethiopia identified witchcraft and stigma as significant determinants of health-seeking behaviour which could delay seeking TB treatment (13). Religion has also been identified as a key determinant in seeking TB diagnosis and by extension a contributing factor to delayed TB treatment (14). In Zimbabwe, self-medication has been associated with a delay in TB treatment (15).

Established knowledge of this topic

- Worldwide, TB is one of the top 10 causes of death and the leading cause of a single infectious agent.
- Kenya is among 30 countries classified by WHO as countries with a high prevalence of TB.
- Delay in the treatment of diagnosed TB cases is one of the drivers of increasing the burden of TB in the world.

Contribution of this study

- Socio-stigma, disputing TB tests when they turn positive, seeking alternative traditional treatment, belief in witchcraft, belief that TB is inherited, religious issues, and buying incorrect drugs over the counter, are socio-cultural factors associated with patient delay in commencement of ant-TB drugs among TB patients In Kwale County, Kenya.
- Health education on the causes and treatment of TB should be conducted intensively in Kwale County to help dispel the socio-cultural myths and stigma associated with TB illness and treatment

Conclusion

Socio-cultural factors influencing delay in TB treatment in Kwale County include; socio-stigma, disputing TB tests when they turn positive, seeking alternative traditional treatment, belief in witchcraft, belief that TB is inherited, religious issues, and buying incorrect drugs over the counter. Health education on the causes and treatment of TB should be conducted intensively in Kwale County to help dispel the socio-cultural myths and stigma associated with TB illness and treatment.

Competing interests

The authors declare no competing interest.

Authors' contributions

BMJ conceived the idea and wrote the proposal, JMN added intellectual input and advised on data analysis, CK read and added intellectual input to the manuscript.

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