Global Journal of
Health Science
(GJHS)

Level of Anxiety among Tuberculosis Patients in Selected Chest Clinics in Mombasa County, Kenya

Osoo Victor Okello and Dr. John Samson Oteyo

IPRJB
INTERNATIONAL PEER REVIEWED
JOURNAL AND BOOK PUBLISHING

Level of Anxiety among Tuberculosis Patients in Selected Chest Clinics in Mombasa County, Kenya

Osoo Victor Okello
Postgraduate Student: Kenyatta University
Corresponding Author's Email: vosoo.vo@gmail.com
Dr. John Samson Oteyo
Department of Psychology: School of Humanities and Social Sciences, Kenyatta University

How to cite:

Okello, O., & Oteyo, J. . (2023). Level of Anxiety among Tuberculosis Patients in Selected Chest Clinics in Mombasa County, Kenya. *Global Journal of Health Sciences*, *8*(2), 38–44. https://doi.org/10.47604/gjhs.1996

Abstract

Purpose: The aim of this study was to explore the levels of anxiety among Tuberculosis patients in selected chest clinics in Mombasa County, Kenya.

Methodology: The research adopted correlational design. The study was conducted in selected three chest clinics in Mombasa County. All tuberculosis patients diagnosed with active tuberculosis disease who are registered and collect their medicines from selected chest clinics in Mombasa County was the targeted population. Convenience sampling was applied because only patients on TB treatment within the period of study were interviewed. Simple random sampling was used to select participants from each stratum to be involved in the study. The sample size involved 200 TB patients. The research adopted questionnaire which consisted of both open ended and closed ended questions to collect data. The study adopted a questionnaire in collection of data. The questionnaire contained both open ended and close ended questionnaire. The researcher used descriptive statistics to help in organizing of data and it would also be helpful in summarizing of data for ease of making interpretations. Statistical Package for Social Science version 25 aided in data analysis. Frequency, percentages and moment was used in data analysis.

Findings: From the study it was also clear that 17.3% of those respondents with moderate non-adherence had severe anxiety, 91% reported that anxiety affected their non-adherence. Side effects of the medication, long duration of treatment and misinformation were the main triggers of anxiety at 75%, 16.3% and 8.7% respectively. The analysis of data showed that 51.3% of the respondents experienced mild anxiety, 27.2% moderate anxiety while 21.5% had severe anxiety. Some of the factors that the respondents stated triggered their anxiety included; side effects of the medicine 75%, 16.3% long duration of therapy and 8.7% said misinformation about Tb treatment made them become anxious.

Unique Contribution to Theory, Practice and Policy: The Care Seeking Behaviour may be used to anchor future studies relating to the level of anxiety to treatment among TB patients. According to the theory, a patient is motivated to seek treatment for a certain ailment when they have positive feelings about the available treatment options and they have been reassured thus have reduced anxiety. The study recommended that there is need for screening and intervention of mental health conditions like anxiety and depression among TB patients to mitigate non-adherence of TB treatment. This should be done through screening, assessment and use of evidenced based psychological intervention. There is need for community awareness to demystify diagnosis and treatment of TB, mitigate stigma and discrimination associated with TB and promotion of social support to TB patients in seeking and adhering to TB treatment.

Keywords: *Tuberculosis, Level of Anxiety, TB patients, Selected Chest Clinics*

INTRODUCTION

According to MOH (2017) TB incidence and prevalence continues to increase gradually. Over ten million people got infected with TB globally and 1.8 million mortality rates from TB were recorded in 2016 (WHO, 2016). New infections were 28,500 reported daily with 4,600 mortalities and 11,100 missed cases. The National Tuberculosis Prevalence Survey of 2016 ranked TB as the fourth leading cause of death in Kenya. According to MOH (2017) the prevalence rate was at 558/100,000, an increment from 233/100,000 in 2016 with high incidence among youths, urban dwellers and women above 65 years. Mombasa had the leading incidence rate at 535/100,000 followed by Nairobi 490/100,000, Homabay 426/100,000 with the North eastern counties of Wajir and Garissa having lowest incidence. It also showed that Mombasa County had a significant upsurge in cases of Multi-drug resistant tuberculosis. According to MOH (2017) new TB infections stood at 5,000 in Mombasa County. The reported statistics formed the basis in choosing Mombasa as the study area with an aim of finding out the relationship between anxiety and TB treatment therapy.

In a study done in Ethiopia by Tola, Davoud, Ghulamreza, Azar, Luche, Abebaw, Mehrdad, & Desta (2015) it was stated that anxiety and depression was noticeable in Tb patients at 67.5% during the intensive phase and 48.5% after six months. Some of the trigger factors included previous TB treatment, substance use disorder and low social economic status. Anxiety had an effect in TB therapy because it triggered the psychological distress. Some of the notable triggers of anxiety included perception of stigma, long duration of therapy, cultural and religious beliefs.

Bender and Bender (2005) found out that anxiety resulting from fear of stigmatization due to an ailment had a negative effect on adherence to therapy. Some TB patients confessed to keeping away from their family members so that they do not make them anxious or make the family be stigmatized by outsiders upon confessing what their family member was suffering from TB (Fox, 2015).

Aamir (2010) found out a close relationship between anxiety/depression and pulmonary tuberculosis. In his study conducted in Pakistan among 61 respondents, 47 (72%) showed signs of severe to moderate levels of anxiety and depression indicated from hospital anxiety and depression scale. Fourteen (22%) showed comorbidity between anxiety/depression and MDR tuberculosis. This study therefore seeks to determine the levels of anxiety among patients in the Kenyan coastal town of Mombasa County.

In another study done in South Ethiopia by Duko, Gebeyeha, Ayona (2015) with a sample of 417 tuberculosis patients as respondents, 173 respondents (41.5%) showed symptoms of anxiety while 43.4% (181 respondents) had depression. The study aimed at finding out the prevalence and correlates of depression and anxiety among patients with Tuberculosis at Wolaitasodo University Hospital and Sodo health Centre in South Ethiopia. The study suggested that anxiety could be triggered by other secondary factors to tuberculosis like poor social support, being female, HIV infection, substance use and being in the intensive phase of treatment. The same study suggested that in Pakistan 46% of tuberculosis patients had shown signs of anxiety, in Romania 72.8%, Greece 40.67% of tuberculosis patients had anxiety while in Kenya anxiety levels were at 61%. This study gave a national outlook of anxiety among tuberculosis patients. It would therefore be

informative to determine the level of anxiety in tuberculosis patients attending selected chest clinics in Mombasa, County.

Louw, Peltzer, Naidoo, Matseke, Mchunu & Tut Shana (2012) in their study on quality of life among tuberculosis, Tb retreatment and TB-HIV co-infected in primary public healthcare patients with a sample of 4,900 with 54.5% male and 45.5% females noted the levels of psychological distress among these respondents was at 81%. The study was done in South Africa and the researcher of this current study would therefore seek to do a study in East Africa, Kenya in particular and do a comparative analysis of both Countries.

Statement of the Problem

Tuberculosis has been as a social illness in regards to the stigmatization the patients go through. Several studies have been conducted on the diagnosis, treatment and prevention strategies of Tuberculosis but few researchers have focused on the psychological outcomes of the diseases such the stigmatization, loneliness, depression and anxiety. Little has however been done in Mombasa on anxiety and its relationship to non-adherence to TB treatment and extent to which duration of therapy, fear of stigmazation and culture beliefs affect this relationship. This paper thus seeks to explore the levels of anxiety among Tuberculosis patients in selected chest clinics in Mombasa County, Kenya.

Care Seeking Behaviour

The researcher adapted the theory of care-seeking behavior by Triandi's (1982) which focuses on understanding how psychosocial variables influence health seeking behavior. The variables include; affect-feelings associated with care seeking behavior like anxiety about a serious diagnosis or being embarrassed by one's diagnosis, expectations-beliefs about the likelihood of relevant outcomes of care seeking, values- importance of care seeking outcomes and utility- the overall worth of care seeking behavior. According to the theory, a patient is motivated to seek treatment for a certain ailment when they have positive feelings about the available treatment options and they have been reassured thus have reduced anxiety. This has be observed mostly in patients diagnosed with cancer who have to choose among the various treatment options available for them like surgery, radiotherapy and chemotherapy. It also suggests that the outcome of therapy is key in determining adherence and choice of treatment, Patients will be more non-adherent to invasive treatments with less positive outcomes and this they always do upon critically evaluating past treatment outcomes.

The value attached to life and a treatment model also has an influence in care seeking behavior in that if a patient has belief and high regard for a treatment option and also a healthcare provider then they tend to be less non-adherent to therapy unlike if there is less value. Utility influences care seeking behavior in that there might be willingness in the part of the patient but inability due to other extraneous factors might hamper adherence hence a patient might consider all the available options and decide on the treatment option based on ability and or inability. The researcher will seek to establish how anxiety about tuberculosis as a disease and treatment misconceptions influences a tuberculosis patient's Non-adherence to tuberculosis treatment.

METHODOLOGY

The research adopted correlational design. The study was conducted in selected three chest clinics in Mombasa County. All tuberculosis patients diagnosed with active tuberculosis disease who are registered and collect their medicines from selected chest clinics in Mombasa County was the targeted population. Convenience sampling was applied because only patients on TB treatment within the period of study were interviewed. Simple random sampling was used to select participants from each stratum to be involved in the study. The sample size involved 200 TB patients. The research adopted questionnaire which consisted of both open ended and closed ended questions to collect data. The study adopted a questionnaire in collection of data. The questionnaire contained both open ended and close ended questionnaire. The researcher used descriptive statistics to help in organizing of data and it would also be helpful in summarizing of data for ease of making interpretations. Statistical Package for Social Science version 25 aided in data analysis. Frequency, percentages and moment was used in data analysis. Presentation of results was done using tables.

RESULTS

Level of Anxiety among Tuberculosis Patients in Selected Chest Clinics in Mombasa County, Kenya

The study aimed to determine levels of medical related anxiety to TB treatment. Medicine related Anxiety was measured using fourteen items adopted from Hamilton Anxiety Scale (Lovan, 2012). The items had four likert scale (no symptoms present =0, mild symptoms =1, moderate symptoms =2, severe symptoms =3 and very severe symptoms =4). The highest score was to be 56 and lowest score was to be 0. Any score below 17 was normal or mild anxiety, 18-24 was moderate, and 25-30 was severe anxiety and 31-56 very severe anxiety. From the results shown Table 1, there were no participants with very severe anxiety. Half of participants had mild level of anxiety related medication of TB treatment (51.3%) whereas those who indicated moderate were 27.2%.

Table 1: Levels of Anxiety

Level	Frequency	Percent
Mild (≤17)	160	51.3
Moderate (18- 24)	85	27.2
Severe (25- 30)	67	21.5
Total	**372**	**100**

Majority of participants (more 90%) affirmed nine of items that they had mild symptoms of TB medication related anxiety. The remaining five items more than 80% of participants indicated mild anxiety.

Table 2: Descriptive Statistics of Anxiety Symptoms

Statements	Mild		Moderate		Severe		Very Severe	
	F	%	F	%	F	%	F	%
Nervous/worried about taking the drugs	278	89.1	27	8.7	7	2.2	0	0
Restless about taking the medicine	271	88.9	39	12.5	2	.6	0	0
Fearing the side effects of the drugs	284	91.0	21	6.7	7	2.2	0	0
Difficulty in falling and or staying asleep because of TB therapy	268	85.9	41	13.1	3	1.0	0	0
It affects my concentration and memory	283	91.3	22	7.1	5	1.6	0	0
Loss of interest in life and activities previously enjoyed	287	92.0	16	5.1	9	2.9	0	0
I hear strange voices after taking the medication	299	95.8	9	2.9	4	1.3	0	0
Vision is affected	304	97.4	4	1.3	4	1.3	0	0
The diagnosis elicits palpitations	285	91.3	12	7.4	4	1.3	0	0
Sighing due to TB therapy	277	88.8	31	9.9	4	1.3	0	0
I experience nausea, vomiting and stomach discomfort due to TB therapy	283	90.7	24	7.7	5	1.6	0	0
I experience low libido and frequent micturition	292	93.6	16	5.1	4	1.3	0	0
I experience dry mouth, sweat and tension headache	287	92	18	5.8	7	2.2	0	0
Fidgeting, tremors and pallor	278	89.1	30	9.9	3	1.1	1	.3

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The analysis of data showed that 51.3% of the respondents experienced mild anxiety, 27.2% moderate anxiety while 21.5% had severe anxiety. The data did not show any respondent who reported very severe anxiety. These findings resonate with the findings of the studies that were done in Pakistan and Ethiopia. Study done in Pakistan and Ethiopia found there 72% and 41.5% of TB patients displayed moderate to severe symptoms of anxiety (Aamir 2010; Duko, Gebeyeha, Ayona, 2015).

Some of the factors that the respondents stated triggered their anxiety included; side effects of the medicine 75%, 16.3% long duration of therapy and 8.7% said misinformation about Tb treatment made them become anxious. The results are consistent with the past studies findings that anxiety could be triggered by other secondary factors to tuberculosis like poor social support, being female, HIV infection, substance use and being in the intensive phase of treatment Duko, Gebeyeha, Ayona, 2015; Louw, Peltzer, Naidoo, Matseke, Mchunu & Tut Shana 2012).Diagnosis of TB

is characterized by deep seated anxiety of knowing HIV status, persistence and severity of TB symptoms and low clinical status. The stigmatizing attitudes and behaviors of community members towards the disease and sufferers leads to that isolation.

Conclusion

All TB patients indicated some level of non-adherence to TB treatment. More than thirty percent of patients affirmed TB and TB treatment related anxiety contributed to some level of non-adherence to TB treatment. Majority of the respondents also indicated that some of the factors that triggered their anxiety to TB treatment included side effects of the medicine 75%; 16.3% long duration of therapy and 8.7% said misinformation.

Recommendations

The study recommended that there is need for screening and intervention of mental health conditions like anxiety and depression among TB patients to mitigate obstacles to TB treatment. This should be done through screening, assessment and use of evidenced based psychological intervention. There is need for community awareness to demystify diagnosis and treatment of TB, mitigate stigma and discrimination associated with TB and promotion of social support to TB patients in seeking and adhering to TB treatment. There is need to integrate psychosocial screening, assessment and intervention to deal with mental conditions associated with TB and TB treatment.

REFERENCES

Aamir, S. (2010). Co-morbidity, anxiety and depression among pulmonary tuberculosis patients Journal of the college of physicians and surgeons-Pakistan: JCPSP,20 (10),703-704

Bender B. G., Bender S. E. (2005). Patient identification barriers to asthma treatment adherence: responses to interviews focus groups and questionnaires. Immunol Allergy ClinNam. 25:107-30

Duko, B., Gebeyeha, A. & Ayano, G. (2015). Prevalence and correlates of depression and anxiety among patients with tuberculosis at Wolaitasodo University Hospital and Sodo Health Centre, Wolaitasodo, South Ethiopia, cross sectional study. BMC Psychiatrist, 15 (1), 214

Louw, J., Peltzer, K., Naidoo, P., Matseke, G., Mchunu, G. & Tutshana B. (2012). Quality of life among tuberculosis (TB), TB retreatment and TB-HIV co-infected in primary public healthcare patients in three districts in South Africa. Health and Quality of Life Outcomes, 10(1), 77

Lovan L., Vancea D., Fratila Z., Burlacu O. (2012). Anxiety and depression in tuberculosis hospitalized patients in comparison to healthy individuals. European Respiratory Journal 2012 40: P2591; D01

Tola H., Tola A., Shojaeizadeh D., Garmaroudi G. (2016). Tuberculosis treatment, non-adherence and lost to follow up among Tb patients with or without HIV in developing countries: A systematic review. Iran Journal of Public Health. 2016 Jan; 44(1): 1-11