



Influence of Anxiety on Non Adherence to Tuberculosis Treatment among Tb Patients in Selected Chest Clinics in Mombasa County, Kenya

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Abstract:

Purpose. The aim of this study was to determine the influence of anxiety on Non adherence to tuberculosis treatment among Tb patients in selected chest clinics in Mombasa County, Kenya

Methodology. The study adopted correlation research design as guided by the hypothesis that anxiety had an effect on Nonadherence to tuberculosis treatment. It was conducted in Mombasa County, Kenya in 3 selected Chest clinics. All tuberculosis patients were the target population. Convenience sampling was used to identify those registered and on active treatment while simple random sampling was used for those who accepted to participate in the study. Data

collection was done using questionnaires that had both open and close ended questions. Descriptive statistics helped in data analysis which were then presented using frequencies, percentages and tables

Results. 312 respondents were interviewed, 91% reported that anxiety affected their Tb treatment. 75% of them reported that side effects of the Tb medicines were the reason they had anxiety, 16.3% said the long duration of therapy while 8.7% stated that misinformation was the cause. 17.3% of respondents with severe anxiety had moderate Nonadherence to their Tb treatment.

Summary, Conclusion and Recommendation. From the result the study noted that the two most common triggers of anxiety in tuberculosis patients were Side effects and the long duration of treatment. It was noted there exists a relationship between anxiety and Non adherence but the association was not significant as indicated by chi-square ($X^2(4, 312) = [2.532], p = [p=.639]$). Screening and assement of patients on long term treatment would be needful in helping manage comorbidities.

Keywords: Anxiety, Non adherence, Tb treatment, selected chest clinics.

Introduction

WHO (2016) stated that tuberculosis was among the leading cause of death globally. It reported that mortality secondary to Mycobacterium tuberculosis in that year was at 1.8 million, ten million having been infected, new infections

were 28,500 while missed cases totaled eleven thousand one hundred. According to the MOH (2017) the incidences of tuberculosis and prevalence keeps increasing amidst the many measures employed to curb the same. Tuberculosis was reported as the 4th leading cause of death in Kenya. The prevalence rate had



moved from 223 for every a hundred thousand people in 2016 to 558 in 2017. Mombasa was reported to be leading in prevalence rate at 535/100,000. It was also noted that the County had had an increase in cases of Multidrug resistant tuberculosis.

Tb treatment in most cases consists of a six months course, two months of intensive phase followed by four months of continuous phase. Over time it has been noted that some patients do not adhere to their regimen as guide thus promoting non adherence. According to WHO (2015) Iran, India and Ethiopia had a Non adherence rate of 30%, 40.5% 25% respectively to anti-tuberculosis medicines. Fox (2015) stated that Nonadherence to tuberculosis medication in developing countries stood at 60% hence the cause of treatment failure and resistant bacteria's.

In Kenya a study done by Obwonge R., Sang R., Wakube, A. (2016) reported that Non adherence to tuberculosis treatment during intensive phase was at 46% while in continuous phase at 54%. This study therefore sorts to determine how Non adherence could be influenced by anxiety in Mombasa County, Kenya.

Materials and Methods

The study adopted correlational research design. The study was conducted in Mombasa County, Kenya. Permission to conduct the study was sort and granted from Kenyatta University Ethics review committee, Mombasa County ethics review committee and National commission for science, technology and innovation of Kenya. Three chest clinics were selected including Coast Provincial General Hospital, Port Reitz and Likoni Sub-county hospitals reason being the three had relatively large number of active tuberculosis patients. All patients on Tb treatment were the target population, convenience sampling was used to select only those patients on treatment and simple random sampling was used to identify sample respondents from the three different stratum.

Data collection was done using open ended and close ended questionnaires. The sample size was 400 respondents but the actual respondents were 312. Descriptive statistics was used to help in organizing and summarizing data for presentation. Data was analyzed using frequencies and percentages and presented using tables.

Table 1. Cross Tabulation of Levels of TB Medication Related Anxiety on Non-Adherence of TB Medication

Non adherence levels	Levels of anxiety					
	Mild		Moderate		Severe	
	Freq.	%	Freq.	%	Freq.	%
Low	21	6.7	7	2.2	10	3.2
Moderate	130	41.7	75	24	54	17.3
High	9	2.9	3	1	3	1
Total	160	51.3	85	27.2	67	21.5

Results

This study aimed at determining the influence of levels of anxiety on non-adherence of Tb treatment. To achieve this objective, cross tabulation was run between levels of anxiety and non-adherence levels. Then descriptive presentation of factors that influence this relationship was done.

Cross Tabulation of Levels of TB Medication Related Anxiety on Non-adherence of TB Medication

Those who had moderate non-adherence and had severe anxiety were 17.3% (54). When the participants were asked whether anxiety affected their Tb treatment, 91% (284) affirmed the statement. Seventy five percent (234) of the participants indicated that source of anxiety emanates from side effects of drugs whereas

16.3% (51) indicated the long duration of TB therapy. Few indicated misinformation (8.7%) as source of their anxiety. Few experiences unknown fear (7.4%). However, the association between the non-adherence and anxiety was not significant as indicated by chi-square ($X^2(4, 312) = [2.532], p = [p=.639]$).

Discussion

This study sort to determine the relationship between anxiety and Non adherence to tuberculosis treatment by Tb patients attending chest clinics in Mombasa County, Kenya. It did establish there was an association between Non-adherence and Anxiety however, the association was not significant to the extent of negatively impairing Tb treatment. Those who had moderate Non-adherence and who affirmed that anxiety affected their Tb treatment were 91%. The study also noted 17.3% of respondents who reported to be experiencing severe anxiety had moderate Non adherence behavior to Tuberculosis thus agreeing with the study done by Kyngas(1999) that noted psychosocial factors like anxiety influences Non adherence to tuberculosis treatment. The results that established that the association between anxiety and Nonadherence was not statistically significant was indicated by chi-square ($X^2(4, 312) = [2.532], p = [p=.639]$).

These results contradicted the findings that found significant close relationship between anxiety levels and adherence to TB treatment (Obwonge et. al., 2016). The fact that participants of current study acknowledged the effects of anxiety emanating from stigma, side effects of drugs and long duration on non-adherence is consistent with the previous studies whose findings are similar. The respondents stated that side effects of the drugs was the leading cause of their anxiety (75%), 16.3% long duration of treatment and 8.7% said misinformation was the cause of their anxiety. As part of primary care efforts, there is need for screening and intervention on anxiety management and other related conditions like

depression to TB patients to ensure that adherence of TB treatment is upheld.

Conclusion

This study suggested there is an influence anxiety has on Non adherence to tuberculosis treatment. It also suggested the various aspect of treatment that caused anxiety among the patients like side effects, long duration of therapy and misinformation. It would therefore be important for other studies to find out what could be some of the medicating measures that can help deal with the triggers of anxiety and also factors that can help reduce Non adherence whether drug related like long duration of treatment, cost of medicine and side effects or patient related such as attitude and perception or service provider factors such as counseling and psychosocial support.

Anxiety being closely related to depression it would also be of importance to study how depression would influence anxiety.

The researcher suggests psychoeducation and information empowerment through counseling clients before commencement of Tb treatment, psychosocial support and monitoring in order to reduces incidences of Non adherence

Conclusions must have wider perspective-implications for other broader areas and domains. Future work and outstanding questions must arise from conclusions. Concluding sections also provide a venue to set the stage for future research directions. Your conclusions must be supportable and not extend beyond your results, so avoid undue speculation and bold judgments about impact. This is also a good place to suggest practical applications for your results, and to outline what the next steps in your research will be.

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Conflict of interests

No conflict of interest.

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