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FACTORS INFLUENCING QUALITY OF LIFE OF PATIENTS LIVING WITH MENTAL ILLNESS: A CASE STUDY OF MATHARI NATIONAL TEACHING AND REFERRAL HOSPITAL

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FACTORS INFLUENCING QUALITY OF LIFE OF PATIENTS LIVING WITH MENTAL ILLNESS: A CASE STUDY OF MATHARI NATIONAL TEACHING AND REFERRAL HOSPITAL

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ABSTRACT

Objective: To determine the quality of life and associated factors of people living with mental illness attending the outpatient clinics at Mathari National Teaching and Referral Hospital. **Design:** A cross-sectional study

Setting: The outpatient clinics at Mathari National Teaching and Referral Hospital.

Subject: 384 patients living with mental illness on follow-up were recruited into the study. Those consenting filled in the quality of life instrument (WHOQOL-BREF), as well as a socio-demographic questionnaire. **Results:** The study found that quality of life was lower than general statistical comparisons, and was found to be related to the marital status of the patient and their income level.

Conclusion: Quality of life tends to be somewhat lower than average in people living with mental illness. It may be affected by marital status and income.

INTRODUCTION

In mental illness, it has been recommended that subjective and objective perceptions of the patient's quality of life should be considered. A person's functioning and the assets he/she has in his/her environment also needs to be considered [1] It is important to focus on quality of life in treating all types of illness because we are able to have an objective view on whether the treatment is effective, or whether it is harmful to the patient in other domains, including the social and psychological domain.

Good treatment does not harm the patient in any area and does not reduce their quality of life. [2] Quality of life is a subjective term but implies all non-medical aspects of the disease, i.e. the

subjective and human aspect of the effects of disease. [1]

However, it is still an underutilized assessment in research projects with the mentally ill. Although it relies heavily on subjective self-reports, as a measure it has been found to be generally quite reliable. [3] While a diagnosis of a mental illness is serious, one can live a stable, productive, happy and mostly normal life if there is adequate care. In Kenya, unfortunately, quality of care for people with mental illness is often limited and inadequate mainly because of few resources allocated to mental health, especially in the areas of financial resources, equipment and staff. There are only a total of 1114 beds in the whole country to cater for people with mental illnesses, and mental health staff are too few to cater for the population: [4] there are only about 0.19 psychiatrists for every 10,000 people.

There are also a limited number of facilities able to treat mental illness in the country. [5] The tool used was the WHOQOL-Bref, a short version of the WHOQOL-100. This tool was developed by the World Health Organisation to come up with a measure of quality of life that could be used among many different cultures.

It was developed with concurrent input from 15 field centres from around the world, including third world and African countries, hence ensuring that it can give valid and reliable data that takes into account the different cultures available worldwide. [8] The inadequate treatment available to most Kenyans suffering from mental illnesses, as well as the stigma they face, may put those suffering from it at risk of a low quality of life.

This outcome similar to was has been seen with those suffering from other chronic illnesses such as HIV. By studying the quality of life among the mentally ill, we can hopefully improve the care they get [6], and this will lead to an improvement in mental health services in Kenya. Quality of life is an important measure in assessing whether treatments work. It also helps improve treatment being given to patients. [6] There are few studies that have been done in Africa and the developing world on quality of life of people with mental illnesses. [7] [3] Thus, this study will bring to light the quality of life of those living with mental illness in Kenya, and what factors affect their quality of life.

OBJECTIVE

To determine the quality of life and its associated factors of people living with mental illness at Mathari National Teaching and Referral Hospital, Nairobi, Kenya.

METHODS

This was a descriptive cross-sectional study that used quantitative methods to answer the research question i.e. to find out what the quality of life of the patients was and the factors associated with it. A data collection instrument

was used to measure quality of life among those suffering from mental illnesses.

A sample size of 384 was used. A random sampling method was used to select the study participants. Patients were approached at random on clinic days and anyone who agreed to take part in the study was taken through the process. Since this was a study carried out on a vulnerable population, informed consent was obtained from the participant and from the guardian.

In some cases, since these were patients who had already been discharged and were stable, they did not come with a guardian, they came on their own to the clinic. The consultant supervising the study deemed that such patients were stable enough to not require the guardian's consent, since they were of sound mind. The study was carried out by the principal investigator and trained research assistant.

Data collection and handling

The quality of life instrument (WHOQOL-BREF) was used to assess quality of life. It is a shorter version of the WHO Quality of Life questionnaire (WHOQOL-100) which has 100 questions. This was developed to come up with a measure of quality of life that could be used among many different cultures. It was developed with concurrent input from 15 field centres from around the world, including third world and African countries, hence ensuring that it can give valid and reliable data that takes into account the different cultures available worldwide. To score the WHOQOL, one converts the answers from the Likert scale into scores using a specific method outlined on the tool, adds up all the scores and then comes up with a definite total score. The WHOQOL-BREF has 26 questions 24 of which are grouped into 4 domains (physical health, psychological, social relationships, and environment). The user manual of the WHOQOL-BREF advises on how to score the instrument.

Since the WHOQOL-BREF is from the WHOQOL-100, with about a quarter of the number of questions (26 as compared to 100), to convert the WHOQOL-BREF scores to the WHOQOL-100, the total scores from each domain and the first 2 questions are multiplied by 4 to make the scores comparable to the WHOQOL-100 and to give the total score (a higher score indicates a better life quality). [8] A simple socio-demographic questionnaire was used to gather socio-demographic data (i.e. age, sex, marital status, income and employment status) from the respondents.

There were also questions added to the socio-demographic questionnaire to capture clinical diagnosis and duration of illness. Recall bias was addressed by training the research assistant's well, as well as giving the respondents enough time to remember. The data collection instruments were pretested among 5 mentally ill inpatients who had been discharged and were waiting to be cleared at one of the wards at the Mathari National Hospital. This data helped inform the rest of the study. Data that was collected was cleaned, coded, entered into Excel, and questionnaires were stored in a safe place. Data Analysis and Presentation

The filled questionnaires were checked for errors. During scoring, the scores from the Likert scale were added up to come up with a total score for the questionnaire. This score was used to represent the quality of life score and was thus analysed. The collected data was entered into Microsoft Excel after each data collection day to be cleaned and then into a statistical package (SPSS v 18.0) for analysis. Analysis of variance was used to find out relationships between the variables, more specifically between quality of life and socio-economic factors (such as education, age, sex) and illness factors (years of illness, type of illness).

Means, standard deviations and proportions were also determined during the data analysis. Narratives and tables were used to present the results. Because there was no qualitative data it was not possible to carry out qualitative data analysis.

Compliance with Ethical Standards

Approval to undertake the study was obtained from the School of Public Health, the Kenyatta National Hospital– University of Nairobi Ethics and Research Committee as well as from the Mathari National Teaching and Referral Hospital Continuing Medical Education Department. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

Since this was a study carried out on a vulnerable population, informed consent was obtained from the participant and from the guardian. In some cases, since these were patients who had already been discharged and were stable, they did not come with a guardian, they came on their own to the clinic.

The consultant supervising the study deemed that such patients were stable enough to not require the guardian's consent, since they were of sound mind. Confidentiality was maintained throughout the study to ensure no data about the participants could be traced to them so as to ensure that none of them would face stigma and discrimination by being discovered as a mentally ill patient, because this is a vulnerable population.

RESULTS

Tables 1 and 2 summarise the socio-demographic and illness characteristics of the study populations.

The mean age of the respondents was 34.5 years with a standard deviation of 10.59 years. Their mean income was Kshs 14,401 and the median income was Kshs 5,000.

Table 1*Socio-demographic Characteristics of the Study Participants*

Characteristic	Frequency	Percentage (%)
Age (Years)		
15-20	11	2.9
20-25	57	15
25-30	73	19
30-35	76	20
35-40	49	13
40-45	52	14
45-50	22	5.7
50-55	23	6
55-60	13	3.4
60-65	7	1.8
<u>Total</u>	384	100.0
Sex		
Male	258	67.2
Female	126	32.8
<u>Total</u>	384	100.0
Level of Education		
None	4	1.0
Special	3	0.8
Primary	123	32.0
Secondary	136	35.4
Tertiary	108	28.1
<u>Total</u>	384	100.0
Marital Status		
Single	245	64.0
Married	111	29.0
Separated	20	5.2
Divorced	3	0.9
Widowed	4	1.0
<u>Total</u>	383	100.1
Employment Status		
Employed	80	21.1
Self-employed	114	30.1
Casual Labourer	58	15.3
Unemployed	104	27.4
Student	23	6.1
<u>Total</u>	379	100.0
Income (Kshs)		
Under 10,000	254	72.4
10,000-50,000	72	20.5
50,000-100,000	16	4.6
Above 100,000	9	2.6
<u>Total</u>	351	100.1

Table 2*Illness characteristics of the Study Participants*

Length of Illness (Years)	Frequency	Percentage
Under 1 year	59	15.6
1 – 2	100	26.5
3 – 4	41	10.8
5 - 6	44	11.6
7 – 8	13	3.4
9 – 10	29	7.7
Over 10 years	92	24.3
<u>Total</u>	378	100.0

Type of Illness	Frequency	Percentage
Schizophrenia	63	24.8
Bipolar	38	15.0
Psychosis	14	5.5
Depression	72	28.3
Drug/Alcohol-induced psychosis	37	14.6
Epilepsy	5	2.0
Anxiety	2	0.8
Cerebral malaria	12	4.7
Meningitis	1	0.4
Alzheimer's	1	0.4
Parkinson's	2	0.8
Brain Illness	1	0.4
Brain Injury	4	1.6
Obsessive-compulsive	1	0.4
Post-trauma stress	1	0.4
<u>Total</u>	254	100.0

Table 3 summarises the quality of life scores of the research participants.

During scoring, the scores from the Likert scale were added up to come up with a total score for the questionnaire. This score was used to

represent the quality of life score and was thus analysed.

The average total score was 326.84, with a standard deviation of 78.4, a median score of 330 and a semi-interquartile range of 50.05

Table 3
Quality of Life Scores

Quality of Life				
<u>Domains</u>	Mean	± Standard Deviation	Median	Semi- interquartile range
Physical	56.2	± 10.64	68	10.71
Psychological	66.1	± 18.09	71	12.5
Social	66.3	± 18.98	67	12.5
Environmental	60.9	± 23.20	59	12.5

Inferential Statistics

One-way analysis of variance (ANOVA) was used to determine whether there are any statistically significant differences between the

means of independent variables (age, sex, marital status, employment status, education, length of illness, type of illness) and the dependent variable (quality of life). A $p < 0.05$ value at 95% confidence interval was considered significant for all analysis.

Table 4 summarises the results of the analysis

Table 4
Results of the ANOVA between different variables and quality of life

VARIABLE	F-statistic	Significance (P-value)
Age	1.273	.121
Gender	.437	.509
Marital Status	3.191	.014*
Average Income	3.341	.011*
Employment Status	2.033	.089
Education Level	.939	.441
Length of Illness	.826	.797
Type of Illness	1.645	.999

During scoring, the scores from the Likert scale were added up to come up with a total score for the questionnaire. This score was used to represent the quality of life score and was thus analysed.

The mean quality of life scores were found to be statistically significantly different for marital status of the study participants (P value was below 0.05). The mean quality of life scores were found to be statistically significantly different for different income levels of the study participants (P value was below 0.05). The mean quality of life scores were not found to be statistically significantly different for any other variables.

DISCUSSION

Gender

Majority of the respondents (67.2%) were male. However, this is in keeping with previous studies that have shown that number of males in Mathari Hospital is slightly higher (63%) compared to the number of females. [9] Another factor that may explain why the number of males are more than the females in the study were number of wards that were available for study was that more male wards than female wards were included in the study: respondents were approached whilst coming for clinic at the five major psychiatric ward, out of which 3 were male wards, while 2 were female.

Women may be more responsive than men hence explaining why despite the 3:2 ratio of the male and female wards, the respondents' male to female ratio is almost 2:1.

Gender did not statistically significantly affect the quality of life. This is similar to a study by Mercier, Péladeau, and Tempier [10] that did not find any statistically significant difference in quality of life when they compared men and women.

Age

The mean age was 34.5, with a standard deviation of 10.59 years. Most of the respondents were aged between 30 and 34 years. This is similar to previous studies which have shown that majority of the patients at Mathari Hospital are between 26 years and 40 years of age [9] Age

of respondents was not statistically significant in its effect on the quality of life of the participants. This is unlike a study by Mercier, Péladeau, and Tempier [10] who found that age affected quality of life: the older the study respondents were, the better the quality of their lives. It is possible that this was because this study was done in a developed country where there is high quality care for older people.

Marital Status

About two thirds (64%) of the patients were single. Similar studies at Mathari hospital have shown that majority of the patients are single. [9] In this study, marital status seemed to statistically significantly affect one's quality of life. This has been shown in other studies where marital status was significant. [7]

Employment Status

The most common employment status for the respondents was either self-employed (29%) or unemployed (27.1%). Similar studies have shown an even higher incidence of unemployment in patients exposed to mental illness. [12] Employment status was not found to statistically significantly affect the quality of life. This is different from a study by Hsiao et al [13] where employment status was significant in its effect on quality of life. A reason for this could be that, in the Kenyan context, most mentally ill patients live with their families, so they depend on their family members to take care of them. Therefore, whether they are employed or not, they still have someone they can depend on, and therefore the employment status may not affect the quality of their lives as much.

Education

The level of education was well-distributed with about a third having studied and finished at primary school, another third who stopped studying at secondary, and another third at tertiary level. A previous study at Mathari Hospital showed that about 40% had finished primary school and up to 40% had gone up to secondary school, and less than 10% had had tertiary education. [9] The level of education was not found to be statistically significant in determining quality of life.

This is similar to a study by Ross and Van Willigen [14] that did not find any statistically significant effect of education on quality of life.

Income

The level of income was low, with Kshs 5,000 as the median income. Similar findings were also found in a study by Kinyanjui, [12] where majority of the patients had little or no income. This is because majority of mentally ill patients cannot hold a job because of the illness. [7]Income was found to be statistically significant in determining quality of life. This is similar to another study by Kahneman and Deaton [15] that found that income affected quality of life.

Length of Illness

Most of the respondents (83%) had had the illness for more than 1 year, the average being 7 years. This is probably because they are on follow-up at the clinics so many have had the illness for many years. Since these were patients on follow up then it is also possible that the majority of people coming for follow up have not had the illness for less than 10 years, those who have had it for longer are more likely to be cured and therefore do not come for clinic more often.[7]Length of illness was not found to be statistically significant in determining quality of life. This is similar to a study by Hsiao et al [13] where they found that length of illness did not affect quality of life.

Type of Illness (self-reported)

Depression and schizophrenia were the most common illnesses. This had been shown in other studies at Mathari too. [9] A third of the population, 33%, did not know their diagnosis. Many claimed they had never been told, a few said they were not sick. This may signal that patient's literacy on mental illness is low.Type of illness was not statistically significant in determining quality of life. This is different from other studies that have found type of illness to be significant, such as by Hansson [16] and Barnes et al.[17]This could be because these studies were done in the developed world.

Quality of Life

The higher the score implies the better the quality of life [18], so the quality of life score in this study was not bad. Kinyanjui [12] found that the average total quality of life for the general population was 77.0%. The average total score in this study (63.7%) was thus lower than the average scores for the general population. Quality of life scores were lower than the norms, and is probably because having of a mental illness might lead to lower quality of life [19]

CONCLUSIONS

The study comes up with the following conclusions: the quality of life for a majority of the study participants was above average, though, in comparison, it is still lower than in the normal population. The most significant socio-demographic factors affecting quality of life were marital status and average income. None of the illness-related factors, whether type of illness or length of illness, seem to significantly affect the quality of life

RECOMMENDATIONS

The study recommends that more emphasis should be placed on improving the quality of life through improving the psychological, social, environmental health of the patients, by health care professionals when they are treating patients for mental illness. Other studies should be done with quality of life in order to get norms for the general population, so as to be able to compare them with the scores for those with mental illness.

REFERENCES

1. Katching, H. (2006) Quality of Life in Mental Disorders: Challenges for Research and Clinical Practice. World Psychiatry. 2006 Oct; 5(3):139–145.Retrievedfrom<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1636133/>
2. Fallowfield, L. (1990) The Quality of Life: The Missing Measurement in Health Care. Souvenir Press: London.

3. Awadalla, A. W., Ohaeri, J. U., Salih, A. A. and Tawfiq, A. M. (2005) Subjective Quality of Life of Community Living Sudanese Psychiatric Patients: Comparison with Family Caregivers' Impressions and Control Group. *Quality of Life Research*. October 2005, Volume 14, Issue 8, pp 1855-1867. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16155773>
4. Kiima, D. and Jenkins, R. (2010). Mental Health Policy in Kenya -An Integrated Approach to Scaling up Equitable Care for Poor Populations. *International Journal of Mental Health Systems* 2010, 4:19. Retrieved from <http://www.ijmhs.com/content/4/1/19>
5. Kenya National Commission on Human Rights (KNHCR). (2011) *Silenced Minds: The Systemic Neglect of the Mental Health System in Kenya*. Kenya National Commission on Human Rights, Nairobi.
6. Gallert, G. A. (1993) The Importance of Quality of Life Research for Health Care Reform in the USA and the Future of Public Health. *Quality of Life Research*. 1993 Oct. 2 (5): 357-36
7. Aloba, O., Fatoye, O., Mapayi, B., and Akinsulore, S. (2013) A Review of Quality of Life Studies in Nigerian Patients with Psychiatric Disorders. *African Journal of Psychiatry*. 09/2013; 16(5):333-337. DOI: 10.4314/ajpsy.v16i5.44
8. World Health Organization (2015). *The World Health Organization Quality of Life (WHOQOL)*. World Health Organization: Geneva. Accessed from http://www.who.int/mental_health/publications/whoqol/en/
9. Ndeti D., Kasakhala, L., Maru, H., Pizzo, M., Mutiso, V., Ongecha-Owuor, F., and Kokonya, D., (2008) Clinical epidemiology in patients admitted at Mathari Psychiatric Hospital, Nairobi, Kenya. *Soc Psychiatry Psychiatr Epidemiol* (2008)xx:1-7 DOI 10.1007/s00127-008-0360-y
10. Mercier, C., Péladeau N., and Tempier R. (1998). Age, Gender and Quality of Life. *Community Ment Health J*. 1998 Oct;34(5):487-500. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/9793739>
11. The Economist (2005). *The Economist Intelligence Unit's Quality of Life Index. The World in 2005*. Accessed from www.economist.com/media/pdf/QUALITY_OF_LIFE.pdf
12. Kinyanjui, W. (2007) *Quality of Life among Patients with Epilepsy Attending the Neurology Clinic at Kenyatta National Hospital, Nairobi, Kenya*. M. Med Dissertation. University of Nairobi
13. Hsiao, C.Y., Hsieh M.H., Tseng C.J., Chien S.H., Chang C.C. (2012) Quality of Life of Individuals with Schizophrenia Living in the Community: Relationship to Socio-demographic, Clinical and Psychosocial Characteristics. *Journal of Clinical Nursing*. 2012 August; 21(15-16):2367-76. doi: 10.1111/j.1365-2702.2012.04067.x.
14. Ross, C. E. and Van Willigen, M. (1997) Education and the subjective quality of life. *J Health Soc Behav*. 1997 Sep;38(3):275-97. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/9343965>
15. Kahneman, D. and Deaton, A. (2010) High Income Improves Evaluation of Life but not Subjective Well-being. *Proceedings of National Academy of Sciences*. vol. 107 no. 38 pp 16489-16493, doi: 10.1073/pnas.1011492107

16. Hansson, L. (2006), Determinants of Quality of Life in People with Severe Mental Illness. *Acta Psychiatrica Scandinavica*, 113: 46–50. doi: 10.1111/j.1600-0447.2005.00717.x
17. Barnes, A. L., Murphy, M. E., Fowler, C. A., and Rempfer, M. V. (2012), Health-Related Quality of Life and Overall Life Satisfaction in People with Serious Mental Illness, *Schizophrenia Research and Treatment*, vol. 2012, Article ID 245103, 2012. 6 pages doi:10.1155/2012/245103
18. Gholami A, Jahromi, L. M. , Zarei E., Dehghan, A.,(2013) Application of WHOQOL-BREF in measuring quality of life in health-care staff. *Int J Prev Med*. 2013;4:809–817.
19. Alonso, J., Angermeyer, M. C., Bernert, S., Bruffaerts, R., Brugha, T. S., Bryson, H., Vollebergh, W. A. M. (2004), Disability and Quality of Life Impact of Mental Disorders in Europe: Results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatrica Scandinavica*, 109: 38–46. doi: 10.1111/j.1600-0047.2004.00329.x