Socio-demographic and clinical correlates of subjective quality of life among Nigerian outpatients with schizophrenia

A.O. Adelufosi [a,*], A. Ogunwale [b], O. Abayomi [a], J.T. Mosanya [c]

[a] Department of Psychiatry, LAUTECH Teaching Hospital, Ogbomoso, Oyo State, Nigeria
[b] Neuropsychiatric Hospital, Aro, Abeokuta, Ogun State, Nigeria
[c] Department of Psychiatry, LAUTECH Teaching Hospital, Osogbo, Osun State, Nigeria

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ABSTRACT

This study aimed to measure the subjective quality of life (QOL) of Nigerian outpatients with schizophrenia and to examine its socio-demographic as well as clinical determinants. A total of 313 outpatients with schizophrenia participated in the study. Data were collected on socio-demographics, outpatient clinic attendance, perceived social support, perceived satisfaction with hospital care, medication adherence, illness severity and QOL. Multiple linear regression analysis was used to determine the amount of variance in the QOL domain scores explained by socio-demographic and clinical variables. Employment status, perceived social support, satisfaction with outpatient care, antipsychotic medication dose, Brief Psychiatric Rating Scale (BPRS) scores and medication adherence had significant relationships with all the QOL domains. Average monthly allowance and outpatient clinic default were significantly associated with all QOL domains except social relationship. Socio-demographic and clinical factors explained only a modest part (29.4%) of the variance in the QOL scores. It is likely that unmeasured 'internalised' determinants contribute in a much larger sense to the variation in subjective QOL.

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1. Introduction

In the last few decades, the assessment of quality of life (QOL) has gained considerable importance in the evaluation of therapeutic interventions and treatment outcome, particularly in relation to chronic illnesses. QOL, which measures an individual's perception of his position in life, within the context of his culture and value systems (WHO, 1994), is considered one of the long-term goals of medical interventions, in addition to the traditional 'end' points of symptom control and prolongation of life (Meltzer, 1999).

Satisfaction with life and improvement in QOL are particularly important in people with chronic disabling illnesses such as schizophrenia, who often require long-term use of health resources in order to remain stable. In such patients, some of whom may still have residual symptoms despite optimal therapeutic interventions; subjective well-being and satisfaction with life are important milestones for measuring treatment success.

QOL as an outcome measure may be assessed subjectively or measured based on some objectively determined criteria. Self-reported QOL by people living with schizophrenia, as a measure of treatment outcome, has been a subject of intense debate, its reliability being questioned by some authors who assert that such a measure may be biased by factors inherently associated with the illness, such as cognitive deficits, affective blunting, poor insight and lack of motivation for improvement (Jenkins, 1992; Atkinson et al. 1997). In spite of these criticisms, it is now generally agreed that the best arbitrator of QOL is the person living that life and not an external expert (Voruganti et al. 1998; Basu, 2004)

Extant research findings have inconsistently reported an association of QOL with socio-demographic and clinical variables. Poor QOL has been associated with the male gender, single marital status, low income, unemployment, poor social support, higher educational attainment and stigma, while being in a paid job is associated with good QOL (Bryson et al., 2002; Cardoso et al., 2005; Adewuya and Makanjuola, 2009; Prince, 2007; Hsiung et al., 2010). Although negative symptoms and depression have been consistently associated with poor QOL, other clinical variables such as the presence and severity of psychopathology, the presence of co-morbid medical illness and the number of medications taken have not demonstrated consistent relationships with poor QOL (Packer et al., 1997; Fitzgerald et al., 2001; Cardoso et al., 2005; Marhawa et al., 2008; Adewuya and Makanjuola, 2009).

Previous studies in Nigeria had reported the deplorable living conditions of persons with serious mental illness in the context of poor access to health resources and high prevalence of stigmatisation

* Corresponding author at: Department of Psychiatry, LAUTECH Teaching Hospital, Ogbomoso, PMB 4007, Ogbomoso, Oyo State, Nigeria.
Tel.: +234 8035988054.
E-mail address: ozotee@gmail.com (A.O. Adelufosi).

(Gureje et al., 2005; Adewuya et al., 2010). The objective living condition of Nigerian patients with schizophrenia is poor, characterised by high rates of unemployment, limited social relationships and poor transportation (Adewuya and Makanjuola, 2010). These factors coupled with other socioeconomic and cultural influences, such as negative beliefs about causes of mental illness (Adebowale and Ogunlesi, 1999), may potentially affect treatment adherence and outcome including QOL. However, only few studies in Nigeria conducted in small samples, assessing a few variables and with largely inconsistent findings, have examined the QOL of patients with schizophrenia (Olusina, Ohaeri, 2003; Adewuya and Makanjuola, 2009; Adewuya and Makanjuola, 2010). While it could be assumed that some relationships might exist between socio-demographic variables, illness-related variables and QOL, the extent to which these factors contribute to the variation in the QOL of patients has not been examined by previous studies in Nigeria. Against the background of adverse socioeconomic conditions experienced by patients with schizophrenia living in a developing country setting such as Nigeria, we hypothesised that socio-demographic variables will be more significant determinants of subjective QOL than clinical or illness-related factors.

This study aimed to investigate the aforementioned hypothesis by examining certain socio-demographic and clinical determinants of subjectively perceived QOL and their relative contributions to specific domains of QOL among outpatients with schizophrenia in Nigeria.

2. Methods

2.1. Study Setting and Participants

This study was part of a larger study that focussed on treatment adherence and QOL among a clinic sample of patients with schizophrenia and the detailed methodology had been explained elsewhere (Adelufosi et al., 2012). Briefly, the study was conducted at the outpatient psychiatric clinic of the Neuropsychiatric Hospital, Aro, Abeokuta, Ogun State, Nigeria, a specialist hospital that offers both inpatient and outpatient psychiatric services to individuals in the southwestern part of Nigeria as well as patients from proximal areas within the country. Outpatient clinics in the hospital are run 4 days a week by consultant psychiatrists, supported by trainee psychiatrists, psychiatric nurses and pharmacists. Services provided at the clinic (consultation, investigations, medications, etc.) are on a fee-for-service basis.

All consecutive outpatients aged 18 years and above, with a diagnosis of schizophrenia confirmed with the Structured Clinical Interview for Diagnosis (SCID), who had attended the clinic for at least 6 months prior to the study and had at least one scheduled appointment during the study period were recruited for the study. Patients who could not give valid responses to questions asked due to gross psychosis, those diagnosed or being managed for learning disability and those with current co-morbid psychoactive substance use were excluded from the study.

The study protocol was approved by the ethical and review committee of the Neuropsychiatric Hospital, Aro, Abeokuta. Verbal, but sometimes written informed consent, was obtained from all consenting participants after providing a detailed explanation of the study.

2.2. Measures

2.2.1. Quality of Life

Participants' QOL was measured using the World Health Organization Quality of Life (WHOQOL)-Bref, a 26-item questionnaire that assesses subjective QOL in the previous 2 weeks. The WHOQOL-Bref has four domains (physical health, psychological health, social relationships and environment) and two questions that measure overall QOL and general health. It is a comprehensive and culturally sensitive instrument with good psychometric properties, having small overlap in content between symptoms and the QOL facets (Skevington et al., 2004).

Participants in this study were interviewed with either the English version of the WHOQOL-Bref or with its validated Yoruba version (Akinpelu et al., 2006), the predominant Nigerian language spoken by patients within the study setting.

2.2.2. Medication Adherence

This was measured using the four-item Morisky medication adherence questionnaire (Morisky et al., 1986). This questionnaire assesses ways in which patient might fail to take prescribed medications. The four response version of the questionnaire containing responses as 'never', 'rarely', 'sometime' and 'always' was used in this study. Participants with a response of 'never' or 'rarely' to all the items on the scale were categorised as medication adherent, while those who responded either 'sometimes' or 'always' to any of the four items on the questionnaire were regarded as medication non-adherent (Vik et al., 2005).

2.2.3. Severity of Illness

The 16 items of the original Brief Psychiatric Rating Scale (BPRS) were used in this study to measure the current psychopathological profile of the participants, as a possible correlate of QOL (Overall and Gorham, 1962). The BPRS is a semi-structured interview schedule originally comprising 16 items rated from 0 (not present) to 6 (extremely severe) and is one of the most frequently used instruments for evaluating psychopathology in patients with schizophrenia. Ratings are made after a brief (15–20 min) unstructured interview with the patient. It is quantitative and was constructed for the sole purpose of rating the current clinical picture.

2.2.4. Demographic Measures

A questionnaire developed by the authors was used in collecting data on participants' age, gender, marital status, monthly allowance, living arrangement, duration of illness and average daily dose of antipsychotic medication in chlorpromazine equivalents (American Psychiatric Association, 1997; Woods, 2003). The level of education was classified as 'none' (for those with no formal education), 'low' (for those with primary or secondary school education only) or 'high' (for those with tertiary education or postgraduate degrees). Marital status was categorised as either single (for those divorced, separated or widowed who were currently not in a partner relationship and those cohabiting) or married (for those currently in a partner relationship). Participants rated the level of social support available to them from families and friends as 'good', 'bad' or 'poor'. Their satisfaction with outpatient clinic care was rated as 'very satisfied', 'moderately satisfied' or 'not satisfied'. Patients seen during the study period who had failed to keep their last clinic appointments on the scheduled date and who did not re-schedule within 2 weeks following were operationally categorised as 'defaulters'.

2.2.5. Procedure

All patients with a case-note diagnosis of schizophrenia were identified and those who met the inclusion criteria were invited to participate in the study. The Structured Clinical Interview for Diagnosis (SCID) was then administered on all consenting participants by two of the researchers (AOA and MTJ) to confirm the diagnosis of schizophrenia. Out of 324 consecutive outpatient clinic attendees who consented to participate in the study, 313 fully met the SCID diagnostic criteria for schizophrenia, while 11 patients did not and were excluded from the study. Other study instruments were administered after a SCID confirmation of patients' diagnosis. The interviews were conducted in the privacy of the outpatient clinic consulting rooms.

2.2.6. Statistical Analysis

Data were analysed using Statistical Package for the Social Sciences (SPSS) 16 (Chicago, IL, USA). The relationship between the WHOQOL-Bref domains and variables such as gender, employment status, marital status, educational status, living arrangement and clinic attendance regularity was determined using the Student's t-tests. Pearson's correlation test was used in determining the relationship between the QOL domains and continuous variables such as participants' age, duration of illness and antipsychotic medication dose. The relationship between participants' perceived social support, satisfaction with treatment and the WHOQOL-Bref domains was determined using analysis of variance (one-way ANOVA with post hoc Scheffe multiple comparison tests). Finally, 'all' socio-demographic and clinical variables (independent variables) were entered into multiple linear regression analysis (stepwise) in order to determine the amount of variance within the four domain scores of WHOQOL-Bref (dependent variables) explained by them. Categorical socio-demographic and clinical variables were entered into the model as dummy variables. For all analyses, the level of statistical significance was set at $P < 0.05$.

3. Results

3.1. Baseline Characteristics

Respondents comprised 163 males (52.1%) and 150 females (47.1%). The majority of respondents (65.5%) were single, while 34.5% were in a partner relationship. Most of the respondents had low levels of education (62.9%), 30.4% had high level of education, while 6.7% had no formal education. As many as 275 participants (87.9%) lived with at least one other person, while 38 (12.1%) lived alone. Majority of the participants had low illness severity as