

Quality Of Life of Patients with Schizophrenia in North-Western Nigeria

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Citation

D I Abioda, O Morakinyo, A Ibrahim. *Quality Of Life of Patients with Schizophrenia in North-Western Nigeria*. The Internet Journal of Psychiatry. 2013 Volume 2 Number 1.

Abstract

The aim of the study was to determine the quality of life of schizophrenic outpatients, and compare it with that of diabetic outpatients.

Method: One hundred and twenty five consecutive patients with schizophrenia and 125 with diabetes mellitus attending out-patient clinics of tertiary Hospitals in Sokoto Nigeria were recruited. The comparison was made using the World Health Organization Quality of Life BREF (WHOQOL-Bref) questionnaire and a Mini International Neuropsychiatric Interview (M.I.N.I. PLUS) questionnaire was used to confirm the diagnosis of schizophrenia.

Results: The socio-demographic characteristics of the 125 schizophrenic and 125 diabetic patients studied were similar. However, schizophrenic patients had poorer rating in social and environmental domains, while diabetic patients had poorer rating in physical domain. No significant difference was observed in subjective quality of life in the psychological domain between schizophrenic and diabetic respondents.

Conclusions: The deficit revealed in schizophrenics is in the social and environmental domains where they rated poorer than diabetics. While Diabetics rated poorer in the physical domain, no significant difference observed in the psychological domain between the two groups. There is need for rehabilitation and psycho-educational programmes to focus more on alleviating difficulties in these areas

INTRODUCTION

Schizophrenia is a chronic disorder with a heterogeneous presentation. It is also marked by variations in outcome and response to treatment (Awad et al 1997). The course of schizophrenia is largely characterised by acute psychotic episodes, which often require hospitalisation. Its symptomatology is split into two clusters. Type 1 is characterised by positive symptoms of delusions, hallucinations, conceptual disorganization, suspiciousness, agitation and hostility. Type 2 on the other hand, presents with negative symptoms of blunted affect, emotional and social withdrawal, lack of spontaneity and poverty of speech (Crow 1980). These disturbances do have a pervasive impact on many areas of life functioning and subsequently on quality of life.

The control of positive symptoms is often regarded as the primary goal of treatment in an illness such as schizophrenia. It is more realistic to consider treatment or rehabilitative goals that maintain the most meaningful existence or quality of life. In recent years, improving patient

METHODS AND PATIENTS

It was a cross-sectional study conducted at the out-patient clinic of Federal Neuropsychiatric Hospital Kware, and diabetic clinic of Usmanu Danfodio University Teaching Hospital both in Sokoto, Nigeria. They are tertiary health institutions providing healthcare services to predominantly Hausa speaking North-western states of Nigeria. Approval from the Hospital ethical committee and informed consent from patients and their relatives were obtained.

PATIENTS

Consecutive out-patient attendees at Federal Neuropsychiatric Hospital Kware, aged between 18-65 years, who met the diagnostic criteria of International Classification of Diseases (ICD10), and inclusion / exclusion criteria were recruited. The group for comparison consisted of consecutive diabetic out-patients aged 18-65 years. Diabetes mellitus (both Insulin-dependent and Non-insulin dependent) was confirmed by the consultant physician in charge of the clinic. Subjects involved in this study were all in a stable condition of health, not requiring increased medication or hospitalisation. All patients were recruited

over a period of four months from March-June 2010.

Inclusion criteria were as follows:

- 1) Diabetic and schizophrenic patients already diagnosed by the consultant in charge.
- 2) Duration of illness must be one year or more.
- 3) All schizophrenic patients must have been interviewed by the author using the Mini International Neuropsychiatric Interview (M.I.N.I Plus) to confirm the clinical diagnosis of schizophrenia.
- 4) Patients must have been in a steady state (without need for hospitalisation) for at least 3 months before assessment

Patients with concomitant serious physical illness, schizophrenic patients with co-existent substance abuse or dependency and schizophrenic patients with mental retardation or dementia were excluded.

ASSESSMENT

The instruments used consisted of the Mini-International Neuropsychiatric Interview M.I.N.I. PLUS (Sheehan et al, 1998), World Health Organization Quality of Life Bref (WHOQOL-Bref) questionnaire, and a Socio-demographic and clinical characteristics questionnaires.

The patients

DATA ANALYSIS

Data was entered into a personal computer using a statistical software package (SPSS version 13.0). Descriptive statistics were calculated for all variables. For continuous variables, means, standard deviations, frequency distribution, and cross-tabulations were generated. A t-test for independent samples and a chi square test were used for evaluating group difference.

All test of significant were carried out at five percent level of probability.

RESULTS

Out of the 268 patients that consented to participate 137 were Schizophrenics and 131 Diabetics. Twenty four patients with schizophrenia and 6 Diabetic patients were excluded from analysis due to incomplete information leaving 113 patients with schizophrenia and 125 patients with diabetes. Since it is a comparative study, the author recruited 12 more schizophrenic patients to give a total of 125 patients.

Socio-demographic characteristics

There were 133 males (53.2%) and 117 females (46.8%), the male-female ratio was 1.1:0.9. Age range was between 18-65 years (mean= 38.4). More than half of the patients (62.8%) were married. A substantial number (41.6%) had no formal education. The majority (60.8%) reside in urban centres, and they practice Islam as their religion (75.6%). The mean age for the schizophrenic group was 36.8 years while that of the comparing group was 39.8 years. The difference was not statistically significant ($t=1.7$, $df=248$, $p>0.05$).

There was higher proportion of schizophrenic patients who were never married (25.6%) compared with the diabetics (12.8%); however the difference was not statistically significant $\chi^2=8.92$, $df=3$, $p>0.05$. There was also higher proportion of diabetic patients employed (56%) compared with (44%) among schizophrenics; however the difference was not statistically significant ($X^2=4.9$, $df=2$, $p>0.05$). The full socio-demographic characteristics were provided in Table 1.

Table 1

Sociodemographic characteristics of schizophrenic and diabetic patients.

Variables	Schizophrenic patients N (%) 125(100)	Diabetic patients N (%) 125(100)	statistic
Educational Level			
No schooling	52(41.6)	46(36.8)	$\chi^2=3.02$ df=3 p>0.05
Primary	18(14.4)	23(18.4)	
Secondary	32(25.6)	25(20.0)	
Tertiary	23(18.4)	31(24.8)	
Employment status			
Unemployed	57(45.6)	42(33.6)	$\chi^2=4.96$ df=2 p>0.05
Student	7(5.6)	5(4.0)	
Employed	61(48.8)	78(62.4)	
Monthly income			
Nil	44(35.2)	32(25.6)	$\chi^2=3.58$ df=2 p>0.05
<#4500:00	5(4.0)	3(2.4)	
>#4500:00	76(60.8)	90(72)	
Marital status			
Single	32(25.6)	16(12.8)	$\chi^2=4.058$ df=3 p>0.05
Married	74(59.2)	83(66.4)	
Divorced	14(11.2)	14(11.2)	
Widowed	5(4)	12(9.6)	
<i>Housing condition</i>			
Pipe-borne water			
No	49(39.2)	38(30.4)	$\chi^2=1.76$ df=1 p>0.05
Yes	76(60.8)	87(69.6)	
Electricity			
No	65(52)	38(30.4)	$\chi^2=11.16$ df=1 p<0.05
Yes	60(48)	87(69.6)	
Telephone			
No	59(47.2)	38(30.4)	$\chi^2=6.74$ df=1 p<0.05
Yes	66(52.8)	87(69.6)	
Mode of transportation			
Public transport	124(99.2)	112(89.2)	$\chi^2=9.16$ df=1 p<0.05
Own transport	1(0.8)	13(10.8)	

Clinical characteristics

Illness duration ranges between 1-30 years with mean 6.4±4.25 years for patients with schizophrenia, and for diabetics 4.98 years while the mean number of hospitalisation for schizophrenics was 0.83±1.25 with a range of 0 to 8years, while that of diabetics was 0.91±1.33. Details were provided in table 2.

Table 2

Clinical characteristics of schizophrenic and diabetic patients

Variables	Schizophrenic patients N (%) 125(100)	Diabetic patients N (%) 125(100)	statistic
Duration of sleep (Hours)			$\chi^2=1.72$
<6 Hours	14(11.2)	7(5.6)	$df=1$
>6Hours	114(88.8)	118(94.4)	$p>0.189$
Depressed mood			$\chi^2=9.02$
No	90(72)	110(88)	$df=1$
Yes	35(28)	15(12)	$p<0.05$
Anxiety symptoms			$\chi^2=5.55$
No	86(68.8)	103(82.4)	$df=1$
Yes	39(31.2)	22(17.6)	$p<0.05$
Concentration			$\chi^2=0.49$
No	12(9.6)	8(6.4)	$df=1$
Yes	113(90.4)	117(93.6)	$p>0.05$

WHOQOL-BREF SCORES

Raw Scores (TABLE 3)

Means of raw scores were generatedfor the WHOQOL-BREF by organising the items into facets representing the 4 domains covered by the questionnaire (physical, psychological, social, and environment) and the 2 items standing on their own (Overall QOL and General health).

The means of raw scores for the 2 items were 3.83±0.55 for overall QOL in schizophrenic patients, and 3.62±0.59 for diabetic patients. The mean of raw scores were 3.82±0.53 for General Health item in schizophrenics and 3.62±0.63 for diabetic patients.

For the domains, mean raw scores were 14.90±2.19 for the physical domain in schizophrenic patients and 13.49±1.96 in diabetic patients 15.21±1.65 for psychological domain in schizophrenic patients, and 15.34±1.12 in diabetic patients.13.14±2.99 for social domain in schizophrenic patients, while 14.07±1.23 social domain in diabetic patients, and 13.70±1.94 for environment domain in schizophrenia and 14.32 ±1.34 in diabetic patients (Table 3).

Table 3

Comparison of quality of Life domain scores among patients with schizophrenia and diabetic patients.

WHOQOL-BREF	Schizophrenic patients N=125	Diabetic patients N=125	statistic
	Mean/ Sd	Mean/ Sd	p value
Domain			
Physical	14.90 (2.19)	13.49 (1.96)	0.001
Psychological	15.21 (1.65)	15.34 (1.12)	0.473
Social	13.14 (2.99)	14.07 (1.23)	0.003
Environment	13.70 (1.94)	14.32 (1.34)	0.003
Overall QOL	3.83 (0.55)	3.63 (0.58)	0.005
General health	3.82 (0.53)	3.62 (0.63)	0.007

There was no significant difference in the psychological domains. The most significant difference ($p < 0.001$) was in the physical, social relationship and environmental domains, where patients with schizophrenia were severely impaired in social and environmental domains.

DISCUSSION

This study observed that schizophrenic patients were more likely to be single (25.6%) and unemployed than diabetic patients (12.8%), although the trend did not reach statistical significance. It is a finding which suggests that diabetes mellitus has a better social outcome than schizophrenia and in line with previous work (Atkinson et al, 1992, Ritsner et al, 2000). Suleiman (1997) showed that Nigerian schizophrenic patients were more likely to be single than diabetic patients. Makanjola (1985) has also shown that Nigerian schizophrenic patients had poor long-term social outcome and difficulties in marital and occupational functioning.

The schizophrenic patient may experience difficulties in social relationship for a number of reasons, one of which might be societal stigmatisation. It results in reduced opportunities for socialisation, marriage, work and social integration (Ohaeri, et al, 2001, Adeponle, 2003). The schizophrenic patient may also experience difficulties in relationship, probably because his perception of the actions, motives of others is distorted by emotions such as anger, frustration, low self esteem, and feelings of inferiority. The observation in this study that respondents experience depressed and anxiety symptoms may be an indication of the presence of such emotions.

Previously African societies were thought not to stigmatise the mentally ill (Fabrega 1991), but recent studies have shown that the level of stigmatisation in African countries is as high as in the western societies (Adewuya, 2006). Lastly, schizophrenic patients may have difficulties in adequately perceiving and communicating needs. These difficulties arise because of symptoms (affective, cognitive, and reality distortions) which can undermine subjective quality of life

and its assessment; the presence of negative symptoms like avolition and anhedonia interfere with social interactions, and prevent effective interpersonal communication.

The overall greater social disability may have contributed to more schizophrenics being unemployed single and earning less income than diabetic patients, a trend which failed to reach statistical significance. This finding is in line with previous work carried out by Suleiman, 1997 who in a controlled study of family financial cost of treating Schizophrenia in Lagos compared 50 schizophrenics with 40 Diabetics and reported that schizophrenics were more likely to be single and unemployed than Diabetics. The finding also in agreement with findings of Hasanah et al, (2002) who in a Quality of Life study on assessment of the state of psychosocial rehabilitation of patients with schizophrenia in the Malaysian Community, compared Quality of life of 40 schizophrenics with 40 Diabetics and reported that schizophrenics were more likely to be unemployed and dependent on the family than diabetics.

Respondents reported good social support. The extended family support system found in most developing societies (El-Islam, 1979) might have accounted for the present study finding. In Nigeria, the extended family system, in spite of westernisation and urbanisation, retains the responsibility for the care and treatment of the mentally ill relatives primarily (Asuni 1972). Makanjola (1985) also reported that the majority of patients were brought for care by their blood relatives and who look after them. More recent studies have however queried the efficiency of the traditional family networks (Gureje et al 1999, Obembe et al 1995). For example, Gureje et al, in a study on long term outcome of schizophrenia among Nigerian patients, found that outcome was poor; they concluded that in the medium to long term, traditional family networks may be inadequate to prevent patients with schizophrenia in developing countries from acquiring significant disablement.

The observation that schizophrenia might have a milder course in developing countries has previously been reported (Murphy et al, 1971). The WHO (1978), in a report on international pilot study of schizophrenia, found that a greater proportion of patients from the industrialized countries had an unremitting psychotic illness, with more hospitalisation and conspicuous personality changes which supported the findings of this study with mean number of hospitalisation of 0.87 compared to the findings of Koivumaa-Honkanen et al (1999), who reported a mean number of hospitalisation of 7.3 among schizophrenic

patients in Finland. The ameliorating effect of cultural factors on illness course may also account for a better outcome seen in developing countries. Such factors include a more permissive and accepting attitude towards the mentally ill and the strong influence of blood ties evidenced in the traditional extended family support system.

COMPARING QUALITY OF LIFE OF SCHIZOPHRENIC PATIENTS WITH THAT OF DIABETICS

The diabetic group domain scores were all higher than the schizophrenic group except in the physical domain. It is consistent with findings of Yildiz et al, (2006) who carried out a QOL study in Turkey using 100 psychiatric patients. Thirty-eight of the patients were schizophrenics. They were compared with diabetic patients and healthy control and observed that schizophrenic patients had the lowest scores on the rating of all the domains.

The study found no significant difference between the schizophrenic and diabetic patients in the psychological domain. Psychological domain is concerned with questions on positive and negative feelings, self-esteem, body image, physical appearance, personal beliefs and attention. Patients with schizophrenia who had been well managed in the community were not in any way different in their psychological well-being when compared with people having other stabilized medical condition of similar severity. This is consistent with findings in Malaysia where Hasanah et al (2002), using WHOQOL-100, found no difference in the psychological wellbeing and level of independence between schizophrenic and diabetic patients.

El-Tayebanim (2007) in a study of quality of life in chronically ill patients in Kuwait compared the quality of life of 50 schizophrenic and 100 diabetic patients and reported that 60% of the diabetic patients scored average in all the domains. Also, a previous study by Stewart et al (1989) showed that diabetic patients experienced good quality of life in comparison to other chronic diseases

In this study, schizophrenic patients also reported a poorer perception of general health than diabetic patients. The reason for this may not be far-fetched from the findings that schizophrenic patients experienced more depressed mood and anxiety symptoms than diabetic patients which may have distorted their perceptions of general health. Also the relatively higher level of unemployment and lower income earning among schizophrenics may affect their perception of

general health. The presence of side effects of antipsychotic medications among some of the schizophrenics might have added to the poor rating of their general health. No similar study has been carried out in Nigeria for comparison.

Schizophrenic patients also reported poor ratings on social domain and environment domain compared to diabetics. This finding is consistent with previous studies, Hasanah et al, (2002), observed that schizophrenic patients have remarkably impaired social domains when compared to diabetic group. Yildiz et al, (2006) in assessment of QOL with the WHOQOL-Bref, reported schizophrenic patients rating poorly on social domain, and environmental domain compared to diabetic patients. The poor rating in social domain could be due a number of reasons, one of which might be societal stigmatisation, which results in reduced opportunities for socialisation, marriage, work and social integration (Ohaeri et al, 2001), it may also perhaps reflects scarcity of proper rehabilitation of schizophrenic patients in Nigeria. The study also observed that diabetic patients reported a significantly poorer subjective satisfaction on overall quality of life and the physical domain. No similar study has been carried out in Nigeria for comparison, but Issa (2006), who studied the quality of life of 251 Diabetic out-patients in Ilorin Teaching Hospital found 15.5% diabetic patients rating poor for physical domain, and about 14% rating poor for overall quality of life. The possible explanation for the poorer score on physical domain is because the questions on the domain relates to daily activities, discomfort, sleep and energy and these areas might be affected by the illness. These findings disagree with the first hypothesis that there will be no difference between the quality of life of schizophrenic and that of diabetic patients.

CONCLUSION

The major limitation of this study is the fact that it is Hospital based and cross-sectional, therefore it may not be representative of patients with schizophrenia or diabetes mellitus in the whole Northern Nigeria. The instruments were administered by the author and the possibility of the patients offering desirable responses in some cases could not be ruled out.

This study revealed handicap in social relationship and environmental domain in schizophrenic patients and these agrees with previous studies. The implications of this study suggest that chronic mentally ill patients experience difficulties in marital status, suffer unemployment, and have

difficulties in social relationship. There is need for rehabilitation and psycho-educational programmes to focus more on alleviating difficulties in these areas.

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