ORION SCHOLAR JOURNALS

International Journal of Scientific Research Updates

Orion Scholar Journals PHILIPPINES

(RESEARCH ARTICLE)

Check for updates

Effect of psycho-educational intervention on drug adherence and quality of life among patients with Schizophrenia in Jigawa State, Nigeria

Ado Shehu [1, *], Hayat Gommaa [2], Usman Sunusi Usman [3], Suleiman Taju Usman [1] and Khadija AuwalLawan [4]

[1] Department of Nursing Science, Maryam Abacha American University of Niger Republic.
[2] Department of Nursing Ahmadu Bello University, Zaria.
[3] Department of community Medicine Federal University Dutse, Nigeria.
[4] Department of Nursing Bayero University Kano, Nigeria.

Abstract

Adherence to psychiatric medications is a complex, dynamic behavior requiring patients to initiate treatment and continue to take their medications; at the correct time, in the correct dose, for prolonged periods of time. But, improving adherence in schizophrenia may have a considerable positive impact on patients and society in terms of quality of life. This can be achieved by focusing on the identified multitude of factors driving non-adherence.

Aim: To evaluate the effect of psycho-education intervention on adherence to drug and quality of life among patients with schizophrenia in Jigawa State, Nigeria.

Method: A quasi-experimental study was conducted with before and after design among caregivers and schizophrenic patients selected from some hospitals in Jigawa State. The study population comprised of all eligible schizophrenic patients and their caregivers within the study area. One hundred and thirty each for both the experimental and control group among the study participants were selected using a multistage sampling technique. Data was entered, coded and analyzed using SPSS version 22.

Results: There was an increase in the knowledge of schizophrenia and medication adherence, quality of life and level of medication adherence after the psycho-education intervention among the study participants. The predictors of medication adherence among the study participants in the experimental group include: type of treatment (ECT) (AOR=0.25, 95%CI= 0.18 – 0.75) was found to be negative predictor of medication adherence to treatment among study participants. While, cost of treatment of more than one thousand five hundred naira per day (AOR=3.00, 95%CI=2.83 – 12.24), occupational status of civil servants (AOR=2.00, 95%CI=1.11–14.33); housewives (AOR=4.03, 95%CI=2.14 – 12.33) and business (AOR=2.01, 95%CI=1.55 – 12.56), combination of drugs and ECT (AOR=4.03, 95%CI=2.75 – 17.53), presence of side effects (AOR=3.00, 95%CI=2.75-15.76) were positive predictors of good medication adherence among the study participants in the experimental group. While, the predictors of quality of life among the study participants in the experimental group include the following: cost of treatment of more than one thousand five hundred naira per day (AOR=4.03, 95%CI=3.56 – 12.45), contact with health care providers i.e Psychiatrist (AOR=4.11, 95%CI=2.33-16.76) and Psychiatrist Nurse (AOR=2.55, 95%CI=1.99-18.46) and presence of side effects (AOR=1.67, 95%CI=1.33-11.57) were positive predictors of good quality of life among the study participants in the experimental group.

Conclusion: Following psycho-education as an intervention among the experimental group; there was an improvement in the knowledge on schizophrenia, medication adherence, quality of life and factors affecting quality of life six month

*Corresponding author: Ado Shehu
Department of Nursing Science, Maryam Abacha American University of Niger Republic

after the intervention (psycho-education). It was recommended that Psycho-education should be included as part of management plan to all newly diagnosed schizophrenic patients and at least one of their care givers.

Keywords: Quality of life; Medication adherence; Psych-education; Schizophrenia

1 Introduction

Schizophrenia is a chronic and severe mental disorder affecting more than twenty million people worldwide. Schizophrenia is among the commonest psychiatric disorders,affecting approximately 1% of the world's population and is among the leading cause of disability. It is also associated with increased rates of co-morbidities, like cardiovascular disorders, diabetes mellitus, hypertension, hyper-lipidaemia, and other mental illnesses e.g., anxiety, depression, substance abuse. Globally, it is associated with considerable disability and may affect educational and occupational performance.People with schizophrenia are 2-3 times more likely to die early than the general population. This is often due to preventable physical diseases, such as cardiovascular disease, metabolic disease and infections. It is known and documented that, excess mortality in persons with severe mental disorders(SMD) like schizophrenia and other psychoticdisorders, bipolar affective disorder, and moderate-to-severe depression is a major public health challenge that warrants action. Persons with SMD usually died about 10 to 20 years earlier than the general population; mostly from preventable physical diseases(James et al., 2018),(Lora et al., 2012);(World Health Organization, 2015).

Furthermore, many scholars have studied factors associated with either adherence or non-adherence to drug treatment among schizophrenic and other mentally ill patients globally (Eticha et al., 2015;Tharani et al., 2013;Maan et al., 2015;García et al., 2016). In a study conducted by Effiong and Idung in Uyo, it was found out that the predictors of treatment non adherence among study participants were a negative attitude to medication (P<0.001), absence of active social support in amarital union (P =.009), high dosing frequency of medication (P=.05) and experience of sideeffects (P=.04)(Effiong& Idung, 2018). In a similar study conducted by Shehu et al in Jigawa, it was found out that, the cost of treatment,types of treatment, side effects, and effects of treatment on the performance (work or academic) were found to be associated withlow adherence of drugs treatment among the study participants at P-level of <0.05 (Shehu et al., 2019). After adjusting for the confounding effects using logisticregression analysis; type of treatment (ECT/ combination of ECT and drugs) were found to be negative predictors of low adherence to treatment among schizophrenic patients. While, cost of treatmentof more than one thousand naira (AOR=3.00, 95%CI=2.75 –8.83) and presence of side effects (AOR=4.01, 95%CI=1.45- 16.09) was positive predictor of low adherence to treatment asthose with side effects are three and four times more likely to benon-adherent to treatment compared to those without side effectsrespectively(Shehu et al., 2019).

Psycho-educational approaches have been developed to increase patients' knowledge of, and insight into, their illness and its treatment (Petretto et al., 2013). It is supposed that; this increased knowledge and insight will enable people with schizophrenia to cope in a more effective way with their illness, thereby improving prognosis. The purpose of patient education/teaching (or Psycho-education) is to increase patients' knowledge and understanding of their illness and treatment (Petretto et al., 2013; Hsu et al., 2013). It is supposed that increased knowledge enables people with schizophrenia to cope more effectively with their illness. Psycho-education al interventions involve interaction between the information provider and the mentally ill person (Petretto et al., 2013). This review compares the efficacy of Psycho-education added to standard care as a means of helping severely mentally ill people with that of standard care alone. The evidence shows a significant reduction of relapse or readmission rates (Petretto et al., 2013). There seems to be some suggestion that Psycho-education may improve compliance with medication, but the extent of improvement remains unclear (Hsu et al., 2013). In the medium term, treating four people with schizophrenia with Psycho-education instead of standard care resulted in one additional person showing a clinical improvement. The scarcity of studies made the comparison between the efficacy of different formats (programmes of 10 sessions or less or 11 or more, individual or group sessions) weak (Petretto et al., 2013).

This study aimed to evaluate the effect of Psycho-education on knowledge and practice of adherence to drug therapy among schizophrenic patients in Jigawa State.

2 Problem statement

Non-adherence remains a global challenge forpsychiatry that has been linked to suicide rates, all-cause mortality and hospitalization for patients.(Chapman and Horne, 2013) Adherence to psychiatric medications is a complex, dynamic behaviour requiring patients to initiate treatment and continue to take their medications at thecorrect time, in the correct dose, for prolonged periods of time(Sanele Mahaye, 2012).

The problem of non-adherence to medical treatment remains achallenge for the medical professions and social scientists.Although successful adherence interventions do exist, half of interventionsseem to fail.(Acosta, 2012) As a result of the widespread problem of adherence, substantial numbers of patients do not get the maximumbenefit of medical treatment, resulting in poor health outcomes lower quality of life and increased health care costs(El-Mallakh and Findlay, 2015). In spite of many advances made in adherence research, non-adherence rates have remained nearly unchanged in the last decades (Kikkert et al., 2006). Poor adherence to antipsychotic medication in schizophrenia have been associated with re-hospitalization and relapse in cross sectionalstudies and studies monitoring hospital admissions among patients being in shortage of supplies of antipsychotic medications (Kikkertet al., 2006).

Non-adherence with medication regimens is among the most common causes of psychotic relapse and the need for re-hospitalization (Siddiqui, Pattojoshi and Khess, 2016). Adherence negatively correlated with severity of illness, and side effects in the form of increased sleep duration, asthenia, increased fatigability, and lassitude and diminished sexual desire (Acosta, 2012).

Non-adherence to antipsychotic medication has a negative impact on the course of illnessresulting in consequences to patients, society and healthcare systems. Many studies investigated that hospitalization rates were significantly higher among non-adherent patients compared with adherent ones. Although there was heterogeneity in the definition of adherenceand measures of adherence used, a consistent connection between lower adherence rates andhigher hospitalization risk has been revealed.The factors consistently associated with non-adherence in patients with schizophrenia arelack of insight, attitudes towards their illness and the medication, past experiences with theirillness and its treatment, substance abuse, adverse drug reactions and lack of social support. Therefore, poor medication adherence has a substantial impact on disease progression, disease complications, functional outcomes,and quality of life. But, improving adherence in schizophrenia may have a considerable positive impact on patients and society. This can be achieved by focusing on the identified multitude of factors driving non-adherence due to that the researcher is assessing the Effect of psycho education on adherence to drug among patients with schizophrenia in Jigawa State, Nigeria.

3 Hypothesis

- $H_{01:}$ There is no difference in levels of knowledge on adherence to drug therapy among study participant before and after the intervention
- $H_{02:}$ There is no difference in adherence to drug therapy among study participantpre and post intervention
- $H_{02:}$ Psycho education has no effect on quality of life among study participants

3.1 Psycho educational intervention regarding knowledge and practices on adherence to Drug therapy and quality of life

According to the guidelines of the American Psychiatric Association (APA) and the DGPPN (German Societyfor Psychiatry, Psychotherapy and Neurology), psycho-educationalinterventions belong to a standard therapyprogram in acute and post-acute phases of patients with schizophrenia (Bäuml, Frobo¨se, Kraemer, Rentrop, Pitschel et al., 2006). In the Cochrane analysis of Pekkala et al, such interventions were accompanied by a higher level of compliance, lower rate of relapse, and improved psychopathological status. In the context of the currentlyinternationally recognized vulnerability-stress–copingmodel, with its assumption of a bio-psychosocial cluster of causes, psycho-educational interventions as an"obligatory-exercise" program provide the foundationfor numerous further treatment measures(Bäuml, Frobo¨se, Kraemer, Rentrop, Walz et al., 2006).Psycho-education is rooted in a variety of historical approaches and is closely related to newer theoretical approaches. During the past 2 decades, a flood of health-oriented messages have received mass exposure. These messages deal primarily with heart disease, diabetes, hypertension, cancer, prenatal care, nutrition, and exercise. A subspecialty within the field of psychology, "health psychology" has emerged to deal with the Patient education has become a recognized necessity in medical care and is commonplace, particularly in the treatment of chronic diseases such as diabetes and heart disease(Bisbee & Vickar, 2012).

Patient education has become recognized as a core component of nursing practice and as an expected part of their daily role. Education plays a large role in the emerging field of chronic disease care coordination sometimes referred to as care transitions. Programs with a substantial educational component have emerged to support patients and families, and to increase skills among health care providers(Bisbee & Vickar, 2012).Group therapy is a multifaceted approach to psycho-education, with a variety of theoretical orientations. Groups are offered based on transactional analysis, reality therapy, client-cantered therapy, gestalt therapy, and many other theoretical approaches. This variegated collection got its start partly from Joseph Pratt, MD, of Worcester, MA. Dr. Pratt began conducting patient education classes for his tuberculosis patients in 1905. From this beginning, support groups developed to discuss the patients' problems and

fears(Bisbee & Vickar, 2012). Inthe following, a more detailed elucidation of why psycho-educationconstitutes a specific form of psycho-therapyfor schizophrenic patients will be presented(Bäuml et al., 2006).

3.2 Medication Adherence

Medication adherence can be a challenge to the schizophrenic patient; yet, improving adherence among those with schizophrenia may have a considerable positive impact on patients and society (Higashi et al., 2013). The transition from administering medication to passive patients to educating engaged patients on self-care management and medication is an area where nurses can have a major social impact. It is this transition that, according to Pilling et al. 2002, has promoted the usefulness of education therapy(Mcqueen, 2018).Medication non-adherence to antipsychotic drugs, which is commonly seen in patients with schizophrenia who have co-morbidities, not only affects the quality of life of individuals suffering from the condition, but can also lead to worsening of disease condition, adverse outcomes, excessive use of health care resources, and higher medical costs(Desai, 2019)

Schizophrenic illnesses are typically long term illnesses. Non-adherence to medication can lead to relapse, which can mean more visits to the emergency room, re- hospitalization and increased need for clinician intervention all of which lead to increased costs to healthcare systems. Rates of non-compliance in psychotic disorders have been reported to vary from to 80% and in most of the cases it would result in relapse. Non-adherent patients have an average risk of relapse that is 3.7 times greater than that of adherent patients (Siddiqui, Pattojoshi, Khess et al., 2016).Non-adherence to antipsychotic medication has a negative impact on the course of illness resulting in increased risk of relapse, re-hospitalization and suicide, and increased costs to healthcare systems (Eticha, Teklum, Ali, Solomon et al., 2015).

Antipsychotic medication adherence plays a key role in patients with schizophrenia, and regular treatment has been proven to ameliorate symptoms and reduce relapse rates However, treatment non-adherence remains one of the greatest challenges in psychiatry. A comprehensive review reported that the rate of medication non-adherence in patients with schizophrenia is as high as 40%–50%. Non-adherence to antipsychotic medication has a negative impact on the course of illness resulting in consequences to patients, society and healthcare systems. Many studies investigated that hospitalization rates were significantly higher among non-adherent patients compared with adherent ones. A systematic review checked suicide rates out because of non-adherence and reported a trend where non-adherence to medication treatment was associated with a significant increase in the risk of suicide. Non-adherence to antipsychotic medication was related to exacerbation of psychotic symptoms, increased aggression and worse prognosis which may result in resistance to drugs and to the development of chronic psychotic symptoms. It was investigated that non-adherence was also significantly related to violence (i.e non-adherent patients were more violent than adherent patients). Non-adherence to medication can lead to relapse, which can mean more visits to the emergency room, re-hospitalization and increased need for clinician intervention all of which lead to increased costs to healthcare systems(Eticha et al., 2015).

The mean rate of adherence among people with physical disorders has been reported to be 76%. A considerable drop in medication adherence has been seen in these patients within 6 months of initiation of drug therapy and sometimes within 1 month. Even in clinical trials, which use intensive monitoring and vigorous measures aimed at adherence, the adherence rate ranges from 43% to 80%. Non-adherence among patients with severe mental illness has been estimated to be between 30% and 65%. The following non-adherence rates have been reported: 30% to 66% for major depression, 30% to 65% for bipolar disorder, and 40% to 50% for schizophrenia(*Improving Medication Adherence in Patients with Severe Mental Illness*, 2013). Hence, thepatient may be able to solve the ambivalence or mayfind ways to handle perceived barriers in relation tomedication adherence, based on intrinsic motivation. Ifthe patient is not ambivalent, but takes a convincedposition pro or against long-term medication use, theintervention should concentrate on either potentialbarriers and strengthening long-term motivation for medication adherence (in case of a motivated patient),or exploring possible goals and values in relation tomedication adherence to find out if new perspectiveson medication adherence can be evoked (Dobber, Latour, Haan, Reimer, Peters et al., 2018).

3.3 Quality of life of patients with schizophrenia

Quality of life research faces many problems, including the lack of a universally accepted definition, lack of consensus about domains of QOL, lack of psychometrically valid instruments, subjective vs. objective assessment, generic vs. specific instruments, problems of assessment in multicultural, multiethnic societies and limitation of the influence of culture on the measurement of QOL, etc. Sullivan G and others also noted that long term psychiatric disorders are more vulnerable to stress, are more dependent, have greater deficits in living skills and have greater problems in employment and in relationship to their social environment(Singh et al., 2008). They found 59.7% of males and 54.7% of females were totally dissatisfied with their sexual relationship (Hasan et al., 2015). Literature supported that QOL were significantly related to marital status. They found that married or cohabiting had a higher QOL than single and

divorced participants. On the other hand, divorced, widowed or separated had a higher QOL than single participant. Among 83 participants, the maximum number of the participants was married (81.9%), the minority numbers (15.7%) were single while very only some participants were divorced (2.4%). WorldHealth Organization, 2009 reported that around 75% to 85%mentally ill people are deprived from proper treatment(Hasan et al., 2015).

The schizophrenia patients reported a markedly higher QoL than those with unipolar depression or neurotic disorders(Berghöfer et al., 2020). Families play key roles in theearly stages of the disease when help is first being sought. Inaddition, families provide long-term care and continued supportfor people experiencing schizophrenia with most of patientscontinuing or returning to live with relatives. It would be interesting to test the quality of life in a broader sense, including the social, environmental, and material factors, considering that satisfaction in one aspect of life does not automatically imply satisfaction in all other areas of life(Mihanović et al., 2015).

The first meta-analysis to compare QOL betweenschizophrenia subjects and healthy controls, with a focus on studies using two widely usedQOL measures. Compared to healthy controls, schizophrenia subjects showed significantlylower QOL in physical, psychological, social and environmental domains. Several possiblereasons could explain this finding. First, psychotic symptoms and co morbidities, such asdepression and anxiety, medication-induced side effects could have an adverse impact onQOL. Second, poor nutrition, reduced physical activity, and metabolic syndrome that are common in schizophrenia subjects, have been associated with lowerQOL. Third, social isolation, lack of access to environmental resources, stigmatization ofthe illness and discrimination, cognitive impairment and limited employment opportunities arefactors commonly associated with schizophrenia, which could lead to poor life satisfaction andhigh psychological stress and low QOL. Another study found that older age was associated with lower QOL in most domains, which isconsistent with previous findings. Older subjects with schizophrenia are likely to have more frequent physical co morbidities, poorer support and more severe cognitive and social functioning impairment, which could lead to poorer physical, psychological and social QOL compared to their younger counterparts. The association between gender and QOL in schizophrenia has been inconsistent; for example, some but not all studies found that male patients had lower QOL. We found female subjects had lower psychological QOL, while males had lower environmental QOL(Dong Li Lu, Zhang, Meng, Wang, Xiang et al., 2019).

4   Results

Table 1 Socio-demographic characteristics of the study participants in both the experimental and control group

Variables	Experimental (Intervention)		Control	
	Frequency	Percent (%)	Frequency	Percent (%)
Age range				
20 – 29	23	18.1	20	15.9
30 – 39	42	33.1	48	38.1
40 – 49	36	28.3	31	24.6
50 – 59	19	15.0	14	11.1
>60	7	5.5	13	10.3
Mean ± SD	40.2 ± 11.1		40.7 ± 11.8	
Educational status				
Non formal education	46	36.2	40	31.7
Primary	21	16.5	24	19.0
Secondary	36	28.3	38	30.2
Tertiary	24	18.9	24	19.0
Sex				
Male	53	41.7	58	46.0
Female	74	58.3	68	54.0

Ethnic group				
Hausa	110	86.6	111	88.1
Others	17	13.4	15	11.9
Religion				
Islam	112	83.0	114	90.5
Christianity	25	17.0	12	9.5
Occupation				
Farmers	27	21.3	22	17.5
Civil servants	17	13.4	20	15.9
Housewives	62	48.8	51	40.5
Student	10	7.9	16	12.7
Business	11	8.7	17	13.5
Marital status				
Married	80	63.0	75	59.5
Others	57	37.0	51	40.5

Table 1 above showed the socio-demographic characteristics of Schizophrenic patients in the experimental (intervention) and control group in Jigawa State, Nigeria. From the result, one hundred and twenty seven (127) participants with mean age and standard deviation of 40.2 ± 11.1years participated in the intervention group while; one hundred and twenty six (126) participants with mean age and standard deviation of 40.7 ± 11.8 years participated in the control group. The age group of 30 – 49 years constituted more than 60% of the participants in both the intervention and control group. Only about one third of the study participants have educational status of non-formal in both the experimental and control group. More than half of the study participants in both groups were females. In terms of ethnicity and tribe, Hausa and Muslims constitute majority of the study population with majority of them as housewives.

Table 2 Assessment of the baseline level of knowledge on medication adherence among care-givers of Schizophrenic patients in both the experimental (intervention) and control group

Knowledge on	Intervention		Control	
medication adherence	Frequency	Percentage (%)	Frequency	Percentage (%)
Good	65	51.2	63	50.0
Poor	62	48.8	63	50.0
Total	127	100.0	126	100.0

About half of the study participants in both the intervention (51.2%) and control (50.0%) group have good scores on knowledge of medication adherence.

Table 3 Assessment of the baseline level of medication adherence scores among participants in both the experimental (intervention) and control group

	Experimental (Intervention)		Control	
Medication adherence	Frequency	Percentage (%)	Frequency	Percentage (%)
Good	63	49.6	64	50.8
Poor	64	50.4	62	49.2
Total	127	100.0	126	100.0

About half of the study participants in both the intervention (49.6%) and control (50.8%) group have good practice scores of medication adherence as indicated in the table above.

Table 4 Assessment of baseline quality of life variables of participants in both the experimental (intervention) and control group

	Intervention		Control	
Variables	**Yes (%)**	**No (%)**	**Yes (%)**	**No (%)**
Are you satisfied with your health	43 (33.9)	84 (66.1)	43 (34.1)	83 (65.9)
Are you satisfied with yourself	42 (33.1)	85 (66.9)	42 (33.3)	84 (66.7)
Do you enjoy life	39 (30.7)	88 (609.3)	38 (30.2)	88 (69.2)
Are you able to concentrate	44 (34.6)	83 (65.4)	42 (33.3)	84 (66.7)
Do you feel safe in your daily life	41 (32.3)	86 (67.7)	42 (33.3)	84 (66.7)
Is your physical environment healthy	35 (27.6)	92 (72.4)	36 (28.6)	90 (71.4)
Do you have enough energy for everyday life	43 (33.9)	84 (66.1)	43 (34.1)	83 (65.9)
Are you able to accept your bodily appearance	42 (33.1)	85 (66.9)	41 (32.5)	85 (67.5)
Do you have the money to meet your daily needs	35 (27.6)	91 (72.4)	37 (29.4)	89 (70.6)
Are you satisfied with accessibility to health services	45 (35.4)	82 (64.6)	42 (33.3)	84 (66.7)

About one third of the study participants in both the intervention and control group have good parameters of quality of life at baseline as indicated in the table above.

Table 5 Assessment of the baseline level of quality of life scores among the study participants in both the experimental (intervention) and control group

	Experimental (Intervention)		Control	
Quality of life (QoL)	**Frequency**	**Percentage (%)**	**Frequency**	**Percentage (%)**
Good	43	33.9	41	32.5
Poor	84	66.1	85	67.5
Total	127	100.0	126	100.0

About one third of the study participants in both the intervention (33.9%) and control (32.5%) group have good quality of life scores at baseline as indicated in the table above

5   Discussions

This study evaluates the effect of psycho-educational intervention on drug adherence and quality of life among patients with schizophrenia in Jigawa State. Both the experimental and control group of study participants did not differ significantly with respect to socio-demographic characteristics: there were a total of one hundred and twenty seven (127) participants with mean age and standard deviation of 40.2 ± 11.1years participated in the experimental (intervention) group while; one hundred and twenty six (126) participants with mean age and standard deviation of 40.7 ± 11.8 years participated in the control group. The age group of 30 – 49 years constituted more than 60% of the participants in both the intervention and control group. Only about one third of the study participants have educational status of non-formal in both the experimental and control group. More than half of the study participants in both groups were females. In terms of ethnicity and tribe, Hausa and Muslims constitute majority of the study population with majority of them as housewives. In terms of medical history, the duration of illness in more than three quarter of the study participants were more than 5 years.More than halve of them have come in contact with psychiatrist in both the experimental (52.8%) and control (51.6%) group. Two third of the study participants in the experimental group (66.9%) and three quarter in the control group (75.4%) were admitted in the hospital. About three quarter of participants in both the experimental (70.9%) and control (67.5%) grouphave attended Psychiatrist hospital prior to this study. About two fifth of the study participants in both the experimental (40.9%) and control (39.7%) group have family member with similar illness: out of which female members of the family were more affected in both the experimental (55.8) and control (46.0%) group. Furthermore, as regards to medical history, most of the participants in both the experimental (64.6%) and control (69.0%) group were on drugs treatment; while very few are on both drugs and ECT, as More than half of the participants in both the experimental (52.3%) and control (53.2%) group spend an

average of one thousand five hundred Naira as the daily cost of treatment.About three quarter of participants in both the experimental (74.8%) and control (73.8%) group had complained of side effects: of which weight gain was the commonest in about half. About half complain of relapse due to non-compliance in both the experimental (51.2%) and control (55.1%) group. More than half in both the experimental (57.1%) and control (69.0%) group complained that the treatment affected their performancewhen the data regarding these participants wereexamined, however, the presence of these participants inthe intervention group did not significantly influence theresults. These participants were just as likely to attendthe Psycho-education workshops as patients with otherdiagnoses, and just as likely to attend follow-upappointments in general. If anything, they were slightlymore likely to adhere to medication than participants' withother diagnoses. Because those who abused substanceswere all in the intervention group, it is impossible to tellfrom the data if patients who abused substances weremore likely to adhere to medications, or if patients whoabused substances and received Psycho-education weremore likely to adhere to medications(Prost et al., 2013).

Summary

The study was conducted to evaluate the effect of psycho-educational intervention on drug adherence and quality of life among patients with schizophrenia in Jigawa StateAn experimental study was conducted with before and after design among caregivers and schizophrenic patients selected from some hospitals in Jigawa State. The study population comprised all the eligible schizophrenic patients and their caregivers within the study area, who were selected and agreed to participate in the study. A sample size of one hundred and thirty each for both the experimental and control group among the study participants were selected using a multistage sampling technique. Data was coded and analyzed using SPSS version 22.

6   Conclusion

About one third of patients in the intervention group (33.9%) at baseline and two-third (66.4%) at post-intervention had good quality of life. The effect of psycho-education intervention was increase in the good quality of life scores from slightly more than one-third (33.9%) to nearly two-third (66.4%) among study participants in the experimental group. However, there was statistically significant difference between the baseline and post-intervention scores on the level of medication adherence scores (P<0.05). Among the study participants in the control group; both at baseline and post-intervention, the quality-of-life scores remains almost the same, i.e. no any observable change.

Recommendations

Based on the findings of the study, the following were recommended:

- Psycho-education should be included as part of management plan to all newly diagnosed schizophrenic patients and at least one of their care givers.
- Psyho-education should be included in the curriculum of Mental Health Nursing right from Basic Nursing Studies up to Undergraduate level: this will help to build the capacity of Registered Nurses in improving the quality of care of patients with mental illness.

Compliance with ethical standards

Acknowledgments

Disclosure of conflict of interest

As the Author; no any area of conflict of interest in the manuscript.

Statement of Ethical approval

Ethical clearance was obtained from the ethical committee of Jigawa State Ministry of Health, before commencement of the study. The provisions of the HELSINKI declaration will be respected.

Statement of informed consent

An informed consent was sought and obtained from each of the potential respondents before the commencement of the study.

References

[1] Berghöfer A, Martin L, Hense S, Weinmann S, Roll S. Quality of life in patients with severe mental illness: a cross-sectional survey in an integrated outpatient health care model. Quality of Life Research. 2020;29(8): 2073–2087.

[2] Bisbee CC, Vickar GM. A review of psychoeducation for Patients with Schizophrenia. Psychiatric Annals. 2012;42(6): 205–210.

[3] Dong M, Lu L, Zhang L, Zhang YS, Ng CH, Ungvari GS, Li G, Meng X, Wang G, Xiang YT. Quality of Life in Schizophrenia: A Meta-Analysis of Comparative Studies. Psychiatric Quarterly. 2019; 90(3): 519–532.

[4] Effiong J, Idung A. Medication Related Factors of Adherence and Attitude to Medication among Outpatients with Bipolar Disorder in Uyo, South-South Nigeria. International Neuropsychiatric Disease Journal. 2018;10(4): 1–10.

[5] García S, Martínez-Cengotitabengoa M, López-Zurbano S, Zorrilla I, López P, Vieta E, González-Pinto A. Adherence to antipsychotic medication in bipolar disorder and schizophrenic patients. Journal of Clinical Psychopharmacology. 2016;36(4): 355–371.

[6] James SL, Abate D, Abate KH, Abay SM, Abbafati C, Abbasi N, Abbastabar H, Abd-Allah F, Abdela J, Abdelalim A, Abdollahpour I, Abdulkader RS, Abebe Z, Abera SF, Abil OZ, Abraha HN, Abu-Raddad LJ, Abu-Rmeileh NME, Accrombessi MMK, Murray CJL. Global, regional, and national incidence, prevalence, and years lived with disability for 354 Diseases and Injuries for 195 countries and territories, 1990-2017: A systematic analysis for the Global Burden of Disease Study 2017. The Lancet. 2018;392(10159): 1789–1858.

[7] Lora A, Kohn R, Levav I, McBain R, Morris J, Saxena S.Disponibilidad y utilización de losservicios y desigualdadeneltratamiento de trastornosesquizofrénicos: encuestarealizadaen 50 países de ingresosbajos y medios. Bulletin of the World Health Organization. 2012; 90(1): 47–54.

[8] Maan CG, Hussain MS, Heramani N, Lenin RK. Factors affecting non-compliance among psychiatric patients in the regional institute of medical sciences, imphal. Indian Journal of Psychiatry. 2015;57(5): 01–07.

[9] Markowitz M, Karve S, Panish J, Candrilli SD, Alphs L. Antipsychotic adherence patterns and health care utilization and costs among patients discharged after a schizophrenia-related hospitalization. BMC Psychiatry. 2013;13: 1–13.

[10] Mihanović M, Restek-Petrović B, Bogović A, Ivezić E, Bodor D, Požgain I. Quality of life of patients with schizophrenia treated in foster home care and in outpatient treatment. Neuropsychiatric Disease and Treatment. 2015;11: 585–595.

[11] Prost E, Musisi S, Okello ES, Hopman WM. The role of psycho-education in improving outcome at a general hospital psychiatry clinic in Uganda. African Journal of Psychiatry (South Africa). 2013;16(4): 264–270.

[12] Shehu A, Garba SN, Anyebe EE, Tukur M, Gomma H. Adherence to drug treatment among schizophrenic patients in Jigawa State, Nigeria. Annals of African Medical Research. 2019;2(1): 45–50.

[13] Siddiqui MA, Pattojoshi A, KhessCRJ.Factors affecting adherence in patients with schizophrenia. 2016; 3(1): 25–32.

[14] Singh P, Midha A, Chugh K, Solanki R. Schizophrenia: Impact on quality of life. Indian Journal of Psychiatry. 2008;50(3): 181.

[15] Tharani AJ, Farooq S, Saleem F, Naveed A. Compliance to antipsychotic medication: A challenge for client, family and health care providers. Journal of the Pakistan Medical Association. 2013;63(4): 516–518.