International Journal of Community Medicine and Public Health
Adisa OP et al. Int J Community Med Public Health. 2025 Feb;12(2):652-659
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20250294

Original Research Article

Effect of mutual support in the management of substance abuse among selected adults attending neuropsychiatric hospital in Nigeria

Olukorede Patricia Adisa*, Ezekiel Babatunde Olaiya

Department of Nursing College of Health Sciences Ladoke Akintola University, Ogbomoso Oyo State, Nigeria

Received: 25 September 2024
Revised: 17 December 2024
Accepted: 20 December 2024

***Correspondence:**
Dr. Olukorede Patricia Adisa,
E-mail: opadisa@lauthech.edu.ng

ABSTRACT

Background: Substance abuse is increasing at an alarming rate, causing serious threats globally. This study examines the effect of mutual support in the management of substance abuse among selected adults attending Neuropsychiatric Hospital in Nigeria.
Methods: This study adopted a quasi-experimental design conducted among fifty-four patients with substance-induced mental illness. The study was done in the pre-intervention, intervention and post-intervention phases. A structured questionnaire was used for data collection. Data collected were subjected to Statistical Package for Social Science (SPSS) edition 27.
Results: There was a significant difference between pre and post-intervention physical improvement of respondents (t_{53}=8.825; p-value= .001). More so, there was a significant difference between pre and post-intervention Social composure of respondents (t_{53}=7.011; p-value= 0.004). And also, there was a significant difference between pre and post-intervention mental stability of respondents (t_{53}=12.093; p-value= 0.003).
Conclusions: The majority of the respondents experienced better physical improvement, social composure and mental stability during post-intervention assessment compared to pre-intervention. This explains that there is a clear adoption of mutual support in the management of mental conditions. It is recommended that mental health nurses adopt mutual support as a tool to help substance abuse patients to attain quick recovery.

Keywords: Intervention, Mental health, Mutual support, Substance abuse

INTRODUCTION

The acute or rehabilitation situations in psychiatric care are managed in collaboration between mental health professionals, patients and caregivers to provide the best psychiatric care. The patients and their caregivers should undergo quality assurance by monitoring, evaluating and disseminating the results.[1] Furthermore, the involvement of caregivers is a good clinical practice in psychiatric care. Clinical guidelines in everyday practice may be implemented through large-scale quality improvement initiatives. However, only limited research has focused on the involvement of caregivers in psychiatric care in the context of quality improvement programs.

The importance of family is clear to substance abuse professionals, and substance abuse programs include activities aimed at family members.[2] Mutual Support or family therapy is a collection of therapeutic approaches that share a belief in the effectiveness of family-level assessment and intervention.[3] Consequently, a change in any part of the system may bring about changes in other parts. Family therapy in substance abuse treatment has two main purposes: to leverage the family's strengths and resources to help find or develop ways to live without

substances of abuse and to ameliorate the impact of chemical dependency on both the identified patient and family.[3]

Mutual Support includes all forms of contribution by relatives towards assisting the already rendered care to patients, to hasten the recovery process. This is because the rate of substance-induced psychosis has been increasing in recent times. Therefore, there is a need for change in strategies to ensure speedy recovery. It was noted that administering medicine to patients with mental health disorders isn't sufficient to impact quick recovery, rather the inclusion of evidence-based strategies like mutual support could also enhance quick recovery.[2]

In recent studies, mutual support has been utilized for positive symptoms, negative symptoms, general functionality, prodromal stage, individuals at risk for the development of psychosis and for comorbid psychiatric disorders such as depression, anxiety, substance abuse, and post-traumatic stress disorder.[4] The components of mutual support therapy for patients with mental condition psychosis include the establishment of a relationship between healthcare workers and the patient's family towards enhancing the patient's thoughts, feelings, and actions as well as the monitoring of their recovery, feelings and behaviors concerning their symptoms.[5] Therefore, medical management of psychotic conditions such as substance-based, may not be sufficient. Based on this backdrop this study investigated the effect of mutual support in the management of substance abuse among selected adults attending neuropsychiatric hospital in Nigeria.

METHODS

Research design and population

The study adopted quasi-experimental design conducted among patients and adult relatives of patients with substance abuse-induced mental health conditions already on pharmacological treatment and therapies from age 18 years old or above in a Neuropsychiatric hospital, Ondo State Nigeria. The study was conducted between November 2022 to February 2023.

Sample size determination

This was calculated using the Slovin formula as in Equation 3.1.

$$n = \frac{N}{1 + Ne^2}$$

Where; z = the sample size, N = the population size, e = the level of confidence, therefore, population size, n is calculated thus;

$$n = \frac{64}{1 + 64(0.5)^2} = 55$$

Inclusion criteria

The study includes patient's relatives and patients who are already on pharmacological treatment and therapies from age 18 years old or above. Also, only relatives of patients who gave consent to part of the study were included.

Exclusion criteria

The exclusion criteria capture relatives of patients who are confined due to the severity of the case and those whose relatives declined participation for any reason best known to them.

Study instrument

A structured questionnaire was used to collect data.

The items were adapted from the Patient Health Questionnaire (PHQ) and World Health Organization Quality of Life Questionnaire. The Patient Health Questionnaire (PHQ) is a self-report version of the Primary Care Evaluation of Mental Disorders (PRIME-MD) diagnostic tool for common mental disorders.

World Health Organization Quality of Life Questionnaire is a 26-item Instrument used to measure subjective quality of life. It is a short version of the World Health Organization Quality of Life Questionnaire (WHOQOL-100), which contains 100 items. It has four domains physical health, psychological, social relationships and environment in addition to two other facets (questions 1 and 2) that ask about individuals' overall perception of quality of life and overall perception of patient's health. The four domain scores denote respondents' perception of their quality of life in each domain. For section A, five items were raised that measure demographic characteristics. Section B, with six (6) items elicited information on physical improvement, section C with seven (7) items elicited information on Social composure and section D with seven (7) items elicited information on mental stability.

Study procedure

Since the study focused on relatives of patients with substance abuse-induced mental health issues, the purposive sampling techniques method was adopted for data collection over a total number of 14 weeks.

Pre-intervention and intervention stage

The pre-intervention and intervention stages were conducted simultaneously. The potential participants (patients and their relatives) were visited during clinic days for familiarization and introduction to the purpose of the study. For those whose relative agreed to be part of the study, they were subjected to a pre-intervention assessment on physical improvement, social composure

and mental stability. After each pre-intervention stage, one relative representing each patient was subjected to interaction and psycho-education to educate them on mutual support. This lasted for a month and the relatives were allowed to practice and interact with the researcher for 6 weeks.

Post intervention

Patients were subjected to post-intervention assessment on physical improvement, social composure and mental stability. this lasted for another 4 weeks.

Data analysis

Quantitative data was coded and processed using the Statistical Package for the Social Science (SPSS) version 25. The data collected for objectives and demographic characteristics were subjected to descriptive frequency type and percentages analysis. The summary of results for each variable was presented in charts.

RESULTS

A total of 54 completed filled questionnaires were analyzed. Table 1 presents the distribution of respondent's demographic characteristics. The majority (66.7%) of the respondents were 18-27 years, below a third (29.6%) were 28-37 years and 3.7% were 38 years or above. Also, male represents 77.8%, while 22.2% represent the female. Also, the majority (88.9%) were educated, while about a tenth (11.1%) were not formerly educated. On employment, 24.1% were employed, above half (53.7%) were self-employed, while 22.2% were not employed. On marital status, 90.7% were single, while 9.3% were married.

Table 1: Demographics characteristics.

Items	Frequency (n=54)	Percentage (%)
Age (mean age= ± 22.5)		
18-27 years	36	66.7
28-37 years	16	29.6
38 years and above	2	3.7
Gender		
Male	42	77.8
Female	12	22.2
Educational status		
Educated	48	88.9
Not educated	6	11.1
Employment status		
Employed	13	24.1
Self-employed	29	53.7
Not employed	12	22.2
Marital status		
Single	49	90.7
Married	5	9.3
Others	0	0.0

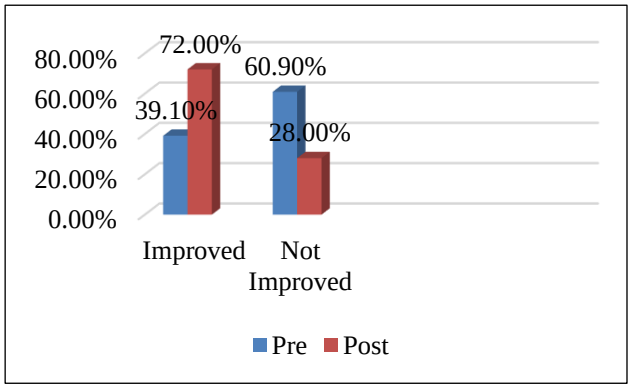

Figure 1: Overall physical improvement of respondents.

Figure 1 presents the frequency distribution of respondents on physical improvement. Table 4.2 shows that during pre-intervention, the majority of the respondents experienced low (78.8%) General Physical calmness, however during post-intervention a more significant majority (68.5%) affirmed calmness. During pre-intervention, few (35.2%) experienced shifting or extraneous movements of legs/arms, however during post-intervention, a more significant majority (88.9%) affirmed during post. During pre-intervention, half (51.9%) were still for more than a few seconds, however during post-intervention, a more significant majority (75.9%) affirmed during post.

During pre-intervention, majority of the respondents experienced low (24.1%) rubbing joints or muscles and

unable to sit still because of discomfort, however during post-intervention a more significant majority (85.2%) affirmed during post. During pre-intervention, majority of the respondents experienced had low energy (18.5%), however during post-intervention a more significant majority (72.2%) affirmed during post. During pre-intervention, majority of the respondents experienced high (22.2%) appetite, however during post-intervention a lower respondents experience low (51.9%) affirmed. During pre-intervention, majority of the respondents experienced low (13.0%) concentrating on things, such as reading the newspaper or watching television, however during post-intervention a higher percent (42.6%) affirmed. During pre-intervention, majority of the respondents experienced (66.7%) Compliance with treatment, however during post-intervention a more significant majority (90.7%) affirmed.

Table 2: Frequency distribution of respondents on physical improvement.

Items		Pre		Post	
		S/PS	NS	S/PS	NS
General physical calmness	F	12	42	37	17
	%	22.2	77.8	68.5	31.5
Frequent shifting or extraneous movements of legs/arms	F	19	35	48	6
	%	35.2	64.8	88.9	10.1
Still for more than a few seconds	F	28	26	41	13
	%	51.9	48.1	75.9	24.1
Rubbing joints or muscles and unable to sit still because of discomfort	F	13	41	46	8
	%	24.1	75.9	85.2	14.8
Feeling energetic	F	10	44	39	15
	%	18.5	81.5	72.2	27.8
Appetite	F	44	10	28	26
	%	81.5	18.5	51.9	48.1
Concentrating on things, such as reading the newspaper or watching television	F	7	47	23	31
	%	13.0	87.0	42.6	57.4
Compliance with treatment	F	36	18	49	5
	%	66.7	33.3	90.7	9.3

F: frequency, Source: Field Survey 2022

Table 3: Paired samples test showing the difference between pre and post physical improvement of respondents.

		Paired differences					t	df	Sig. (2-tailed)
		Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
					Lower	Upper			
PI	Pre PI - Post PI	0.524	0.125	0.003	0.128	0.236	8.825	53	0.001

Table 3 presents the Paired Samples Test showing the difference between pre and post-intervention Physical improvement of respondents. Results show that, there is a significant difference between pre and post-intervention Physical improvement of respondents (t_{53}=8.825; p-value=0.001). This is an indication that, the null hypothesis which states that, there is no significant difference between pre and post-intervention Physical improvement of respondents is rejected, while the alternative which states that, there is a significant difference between pre and post-intervention Physical improvement of respondents is upheld.

Table 4 presents the frequency distribution of respondents on Social composure. during pre-intervention, majority of the respondents experienced low (7.4%) Little interest or pleasure in doing things, however during post-intervention a higher significant majority (46.3%) affirmed calmness. During pre-intervention, few (3.7%) experiences easily distracted, however during post-intervention a more significant majority (63.0%) affirmed during post. During pre-intervention, a half (48.1%) Overeating or over-stretching of issue, however during post-intervention a more significant majority (75.9%) affirmed during post. During pre-intervention, majority of the respondents experienced low (24.1%) Feeling bad about yourself among the people, however during post-intervention a more higher significant (38.9%) was affirmed during post.

During pre-intervention, majority of the respondents experienced had moving or speaking Highly that other people could have noticed (44.4%), however during post-intervention a more significant majority (79.6%) affirmed during post. During pre-intervention, majority of the respondents experienced high (20.4%) Being so fidgety

or restless that you have been moving around a lot more than usual, however during post-intervention more lower respondents experienced low (53.7%) affirmed. During pre-intervention, majority of the respondents experienced low (20.4%) Good listening and communication, however during post-intervention a more higher percent (83.3%) affirmed. During pre-intervention, majority of the respondents experienced (35.2%) Prefer Isolation, however during post-intervention, a more significant majority (70.4%) affirmed.

Table 4: Frequency distribution of respondents on social composure.

Items		Pre		Post	
		S/PS	NS	S/PS	NS
Little interest or pleasure in doing things	F	4	50	25	29
	%	7.4	92.6	46.3	53.7
Easily distracted	F	2	52	34	20
	%	3.7	96.3	63.0	37.0
Overeating or over stretching of issue	F	26	28	41	13
	%	48.1	51.9	75.9	24.1
Feeling bad about yourself among the people	F	13	41	21	33
	%	24.1	75.9	38.9	61.1
Moving or speaking highly that other people could have noticed	F	24	30	43	11
	%	44.4	55.6	79.6	20.4
Being so fidgety or restless that you have been moving around a lot more than usual	F	11	43	29	25
	%	20.4	79.6	53.7	46.3
Good listening and communicative	F	11	43	45	9
	%	20.4	79.6	83.3	16.7
Prefer Isolation	F	19	35	38	16
	%	35.2	64.8	70.4	29.6

F: frequency, Source: Field Survey 2022

Table 5: Paired samples test showing difference between pre and post intervention social composure of respondents.

		Paired differences					t	df	Sig. (2-tailed)
		Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
					Lower	Upper			
PI	Pre SC - Post SC	0.119	0.046	0.006	0.105	0.262	7.011	53	0.004

Table 5 presents Paired Samples Test showing difference between pre and post intervention on social composure of respondents. Results show that, there is a significant difference between pre and post intervention perception on social composure of respondents (t_{53}=7.011; p-value= 0.004).

Table 6 above presents frequency distribution of respondents on mental stability. Figure 2 shows the graphical representation of the distribution. During pre-intervention, a few (3.7%) respondents experienced low Feeling down, depressed, or hopeless, however during post-intervention a higher significant majority (75.9%) affirmed. During pre-intervention, few (13.0%) experiences Trouble falling or staying asleep, or sleeping too much, however during post-intervention a more significant majority (63.0%) affirmed during post. During pre-intervention, a fifth (20.4%) Often no not have thoughts of dead or hurting yourself in some way, however during post-intervention a more significant majority (98.1%) affirmed during post. During pre-intervention, a few of the respondents do not recently experienced (14.8%), abstinence, however during post-intervention a higher significant (38.9%) affirmed during post.

During pre-intervention, a few of the respondents do not experienced anxiety (9.3%), however during post-intervention a more significant majority (66.7%) affirmed during post. During pre-intervention, majority of the respondents experienced high (3.7%) self-efficacy, however during post-intervention a lower respondents experience low (57.4%) affirmed. During pre-intervention, majority of the respondents experienced low (53.7%) Easily remembered things, however during post-intervention a higher percent (83.3%) affirmed. During pre-intervention, majority of the respondents experienced (33.3%) Improved focus, however during post-intervention a more significant majority (70.4%) affirmed.

Table 7 presents Paired Samples Test showing difference between pre and post intervention on mental stability of respondents. Results show that, there is a significant

difference between pre and post intervention on mental stability of respondents (t_{53}=12.093; p-value= .003). This is an indication that, the null hypothesis which states that, there is no significant difference between pre and post intervention on mental stability of respondents is rejected, while the alternative which state that, there is a significant difference between pre and post intervention on mental stability of respondents is upheld.

Table 6: Frequency Distribution of respondents on mental stability.

Items		Pre		Post	
		S/PS	NS	S/PS	NS
Feeling down, depressed, or hopeless	F	2	52	41	13
	%	3.7	96.3	75.9	24.1
Trouble falling or staying asleep, or sleeping too much	F	7	47	34	20
	%	13.0	87.0	63.0	37.0
Often have thoughts of dead or hurting yourself in some way	F	11	43	53	1
	%	20.4	79.6	98.1	1.9
Recently achieved abstinence	F	8	46	21	33
	%	14.8	85.2	38.9	61.1
Anxiety	F	5	49	36	18
	%	9.3	90.7	66.7	33.3
Self-efficacy	F	2	52	31	23
	%	3.7	96.3	57.4	42.6
Easily remembered things	F	29	25	45	9
	%	53.7	46.3	83.3	16.7
Improved focus	F	18	36	38	16
	%	33.3	66.7	70.4	29.6

F: frequency, Source: Field Survey 2022

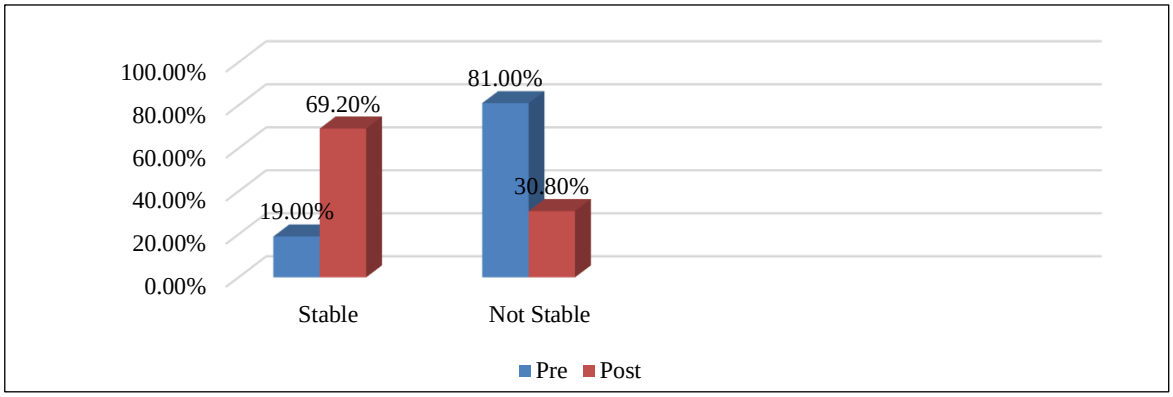

Figure 2: Summary of respondents overall mental stability.

Table 7: Paired samples test showing difference between pre and post intervention social composure of respondents.

		Paired differences					t	df	Sig. (2-tailed)
		Mean	Std. deviation	Std. error mean	95% Confidence interval of the difference				
					Lower	Upper			
MS	Pre MS-Post MS	0.516	0.102	0.005	0.016	0.128	12.093	53	0.003

DISCUSSION

Findings revealed that the majority of the respondents were male and in their youthful stage of life with a mean age of 22.5 years. Yotebieng et al reported that substance abuse may start in childhood or adolescence.[6] Abuse prevention efforts in schools and community settings now focus on school-age groups. This is probably because age is often associated with high responsibility and those who are married also have higher responsibility to attend to,

this might reduce their level of devotion to substance. This is also corroborated by the fact that most participants were single. However, the majority were educated and either employed or self-employed. Being employed could explain their source of income generation, which probably could also contribute towards their capacity to purchase illicit substances.

The role of families or relatives in improving the physical health of mental health patients was a subject of investigation in this study. Therefore, findings revealed that the majority of respondents had poor physical improvement during pre-intervention, however, at post-intervention, there was a clear decline in the percentage of respondents who had poor physical improvement. This implies that physical improvement becomes better during post-intervention. This result is evidenced from a significant improvement in calmness, frequent shifting or extraneous movements of legs/arms, concentrating on things, such as reading the newspaper or watching television as well as compliance with treatment.

It has been reported that family engagement in patients with mental illness could lead to better patient outcomes, such as fewer relapses, longer duration between relapses, reduced hospital admissions, shorter inpatient stays, and improved compliance with medication and treatment plans.[1,7] The plausible reason to this is that the intervention was effective and had a significant positive effect. Findings agree with another report that primary care providers could engage the family in various ways, ranging from basic functions such as psycho-education and supporting the family's needs to more specialized interventions such as family assessment and family therapy.[8]

Findings revealed that there is a significant difference between pre and post-intervention physical improvement of respondents. Teka et al found that Families could also help patients gain access to mental health services during times of crisis.[9] The implication is that there was a significant improvement in their physical indicators which was reflected in the difference in their pre and post-physical indicators.

More findings revealed that the majority of the respondents had poor social composure during pre-intervention, however, there was a clear decline in the percentage after post-intervention. Jack-Ide et al hold a similar view when they found that, for patients with depression, early intervention involving the family when symptoms first emerge may help to reduce the severity of the episodes.[10] This implies that social composure becomes better during post-intervention. Family engagement is associated with better self-reported quality of life by patients and reduced general social impairment. This study shows that there was a significant improvement in pleasure in doing things, easily distracted, over-stretching of issues and good listening and communication.

Findings revealed that there is a significant difference between pre and post-intervention social composure of respondents. The implication is that there was a significant improvement in their social composure which was reflected in the difference in their pre and post-social composure.

More findings revealed that the majority of the respondents had low mental stability during pre-intervention, however, there was a clear decline in the percent of respondents who had poor mental stability. There was a significant improvement in the rate at which respondents get depressed, achieved abstinence, anxiety, self-efficacy and improved focus.

The plausible reason to this is that the intervention was instrumental to mental stability. Svendsen et al noted that high caregiver-reported involvement is statistically significantly associated with high patient-reported improvement and overall satisfaction with care.[1] This applies to aspects of caregiver-reported involvement: support for the patient-caregiver relationship, caregiver information, consideration for caregiver experiences and the involvement of caregivers in decision-making.

Findings revealed that there is a significant difference between the pre and post-intervention mental stability of respondents. Jaguga et al reported that family engagement helps to ease family burden and carer stress.[11] The implication is that there was a significant improvement in their mental stability which was reflected in the difference in their pre and post-mental stability. Findings agree with Ingoldsby et al who observed that patient and family engagement with mental health services improves when providers adequately tackle these hurdles.[12]

One key instrument to understanding mental health conditions is the importance of caregivers and this has been debated for long. However recent efforts have established this to achieve good outcomes in mental health care. The role of caregivers which includes, families and relatives of patients cannot be over-emphasized. This has also been established in the findings of this study which was illustrative in the mutual support theory. Therefore, mental health nurses across the world need to strategically engage caregivers in the care of patients, as it represents best practice.

Also, mental health policies must be made to necessitate improved mutual support techniques among mental health nurses. As part of the current effort to attain the global mental health objectives which center on preventing the occurrence of conditions to the barest minimum, it is important that, there is a large collaboration among parents, schools as well as mental health nurses to forestall looming geometrical increase in the number of cases, especially in developing and under-developed countries as the global economic crisis bites harder.

This study has few limitations. The study was conducted in a mental health facility which implies that the finding of this study could be limited to the health facility and may not be generalized to cover other non-healthcare settings at the state or local level. Thus, a multicenter study is required for future studies.

CONCLUSION

Mutual support improved significantly physical improvement, social composure, and mental stability. The study noted that there was a significant improvement in the physical indicators from pre and post-intervention among the respondents. Also, concluded there was a significant improvement in social composure from pre and post-intervention among the respondents. And that, there was a significant improvement in the mental stability from pre and post-intervention among the respondents.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee of Ondo State Ministry of Health (OSHREC 15/08/22/468)

REFERENCES

1. Svendsen ML, Ellegaard T, Jeppesen KA, Riiskjær E, Nielsen BK. Family involvement and patient-experienced improvement and satisfaction with care: a nationwide cross-sectional study in Danish psychiatric hospitals. BMC Psych. 2021;21:1-9.
2. Opondo PR, Olashore AA, Molebatsi K, Othieno CJ, Ayugi JO. Mental health research in Botswana: a semi-systematic scoping review. J Int Medi Res. 2020;48(10):0300060520966458.
3. Jaguga F, Kiburi SK, Temet E, Barasa J, Karanja S, Kinyua L, Kwobah EK. A systematic review of substance use and substance use disorder research in Kenya. PloS one. 2022;17(6):e0269340.
4. Ingoldsby EM. Review of interventions to improve family engagement and retention in parent and child mental health programs. J Chi Fami Stud. 2010;19:629-45.
5. Akiyama MJ, Cleland CM, Lizcano JA, Cherutich P, Kurth AE. Prevalence, estimated incidence, risk behaviours, and genotypic distribution of hepatitis C virus among people who inject drugs accessing harm-reduction services in Kenya: a retrospective cohort study. Lancet Infect Dis. 2019;19(11):1255-63.
6. Yotebieng KA, Agot K, Rota G, Cohen CR, Syvertsen JL. A qualitative study of substance use during pregnancy: implications for reproductive healthcare in western Kenya. Afr J Reproduct Health. 2016;20(4):51-9.
7. van Duijvenbode N. The potential usefulness of implicit measures to assess and treat problematic substance use in individuals with mild to borderline intellectual disability: setting a research agenda. Advan Neurodevel Dis. 2017;1(2):107-9.
8. Dirik A, Sandhu S, Giacco D, Barrett K, Bennison G, Collinson S, et al. Why involve families in acute mental healthcare? A collaborative conceptual review. BMJ open. 2017;7(9):e017680.
9. Asgedom TT. Substance abuse among undergraduate students at a university in Ethiopia. Published PhD Thesis, Unisa, Pretoria. http://hdl. handle. net/10500/23580. 2017.
10. Jack-Ide IO, Amegheme FE. Family caregivers' knowledge about their ill relatives' mental illness and treatment: perspectives from the Niger Delta region of Nigeria. J Behav Ther Ment Heal. 2016;1(4):10-8.
11. Jaguga F, Kiburi SK, Temet E, Barasa J, Karanja S, Kinyua L, et al. A systematic review of substance use and substance use disorder research in Kenya. PloS one. 2022;17(6):e0269340.
12. Ingoldsby EM. Review of interventions to improve family engagement and retention in parent and child mental health programs. J Child Fam Stud. 2010;19:629-45.

Cite this article as: Adisa OP, Olaiya EB. Effect of mutual support in the management of substance abuse among selected adults attending neuropsychiatric hospital in Nigeria. Int J Community Med Public Health 2025;12:652-9.