



Assessment of Psychological Well-Being among Relatives of Patients Diagnosed with Psychotic Disorders in Neuro-Psychiatric Hospitals in South-West Nigeria

Maitanmi Bukola Titilope¹, Aina Joseph Olaniyi¹, Maitanmi Julius Olatade², Anokwuru Rafiat Ajoke³, Oyedele Titus Oluwatoyin⁴, Ogungbesan Joshua Olufemi² and Abiodun–Ojo Olubukola Esther⁵

¹Department of Mental Health/Psychiatry Nursing, School of Nursing, Babcock University, Ilishan-Remo, Ogun State, Nigeria.

²Department of Community/Public Health Nursing, School of Nursing, Babcock University, Ilishan-Remo, Ogun State, Nigeria.

³Department of Maternal and Child Health, School of Nursing, Babcock University, Ilishan-Remo, Ogun State, Nigeria.

⁴Surgery Department, Babcock University, Ilishan-Remo, Ogun State, Nigeria.

⁵Department of Maternal and Child Health, Faculty of Nursing, Afe Babalola University, Ado Ekiti. Ekiti State, Nigeria.

Corresponding Author: Maitanmi Bukola T.

Corresponding Email: maitanmib@babcock.edu.ng

Abstract

Background: Psychotic disorder contributes to the mental health global burden. Having a family member suffering from the illness may result in a caregiver's psychological well-being depletion, increased burden of care and low quality of life. The study assessed the psychological well-being and the militating stressors against the relatives of patients diagnosed with psychotic disorder psychological well-being in Neuro—a psychiatric hospital in South-west Nigeria. **Method:** The research used a qualitative design to assess the psychological well-being of relatives, militating stressors against their psychological well-being and coping strategies adopted. Samples were obtained by purposive sampling technique to select forty-four (44) participants and one-on-one interviews using semi–structured interviews done. The data were collected by interview and using a recorder and the same was transcribed verbatim and analysed thematically. **Result:** The results generated were categorized into themes and subthemes which included: lack of autonomy, acceptance of the situation, insecure relationships with families and friends, poor environmental mastery, and impact on physical and psychological well-being while the sub-themes included: uneasy decision, maladaptive coping, stigmatization, unsupportive family and friends, financial burden, and reduced quality of life. **Conclusion:** The study suggests that nurses and other health professionals aid relatives in improving their coping skills, sensitization of the populace on mental disorders and provision of adequate information in the form of educational intervention may enhance their psychological well-being.

Keywords: *Assessment, Psychological well-being, Relatives, Psychotic Disorder.*

<https://dx.doi.org/10.4314/bjnhc.v5i1.20>

Introduction

Disorders in mental health, especially those psychotic in nature remain a great challenge in our community and pose a serious threat to relatives on ways to manage those having the disorder because of their disabilities and the negative effect it has on the patient's quality

of life and those of their relatives caring for them (Simo et.al. 2019). This goes to show that when a person is being diagnosed with psychotic disorder, it is not just the patient's problem as this diagnosis will affect the patient's relatives and sometimes more than it does the patient. According to the Psychotic

Disorder Statistics (2021), about 3 in 100 individuals residing in the United States will experience an episode of psychosis in their lifetime.

According to Ayelew *et al.* (2019), relatives of individuals diagnosed with psychotic disorder undergo a great burden which negatively impacts their health and psychological well-being when rendering care to their sick relatives. The availability of focused intervention in areas of stigma, finance, access, and social support will minimize these burdens. The threat posed to their psychological well-being especially when their loved ones are hospitalized is increased because of the instability and shock experienced due to the patient on admission and the various tasks that need to be completed to ensure that their quality of life is maintained.

Moreover, it is even greater when the patient displays violent behaviour which may result in injuries being sustained by the patient's relative. Also, they may face stigmatization from the community in addition to financial drainage on their meagre income (which is now being threatened as a result of time constraints) in meeting the required care for their loved ones admitted to the hospital. There is no other way out but that the patient's relatives continue their activities of daily living in order to sustain them. All these and many more may contribute negatively to the psychological well-being of the relatives which might require interventions from experts like the nurses to alleviate but often the attention is only focused on the admitted patient without care and/or concern for the relatives who may be going through psychological trauma.

A study conducted by Khoirunnisa *et al.* (2018) showed that patients' relatives experience greater difficulty in coping with the care for their loved ones diagnosed with psychotic disorders. Also, patients experience social neglect and poor communication from relatives after discharge and this has been attributed to a lack of adequate nursing

intervention in the form of health education and psycho-education to relatives who care for the patients. Udoh *et al.* (2021) in a study affirmatively stated that encountering psychological distress affects the quality of life and health of the relatives, but will also affect their productivity as an individual, and their ability to provide quality care for the ill relatives, therefore worsening the health of the mentally ill relative and decreasing the likelihood of their possible recovery or improved health

Even though, the psychological distress experienced varies according to region. In the developed regions, the reported psychological distress is higher compared to sub-Saharan countries and even Nigeria as a country. Studies done by Iseselo *et al.* (2016) reported that in developed countries, more than seven in ten (72%) patients' relatives experience psychological distress. Mehra *et al.* (2020) emphasized the relationship of stigma with burden and coping among caregivers of patients with severe mental disorders and showed that the highest-burden was reported on finance, followed by disruption of family routines, leisure activities, family interaction, effect on the physical health and mental well-being. The coping strategies adopted by caregivers were; information gathering, positive communication and social involvement. A higher level of stigma also resulted in a greater burden for the caregivers. Additionally, while relatives care for their loved ones, they are somehow exposed to several health problems which may require the "carer" to be cared for. Jormfeldt and Hallén (2016), opined that, a lack of motivation caused by the overwhelming nature of care required by psychotic patients, relatives often find it difficult to keep up with healthy routines and life content. Thus, the ability of the Nurses to provide adequate psychological support for these relatives might go a long way in promoting their psychological well-being. This may also improve the coping skills and capability to apply the interventions needed even after their loved ones might have been discharged from

the hospital (Ayleen *et al* (2019). The study, therefore, assessed the psychological well-being and the militating stressors against the relatives of patients diagnosed with psychotic disorder psychological well-being in Neuro –a psychiatric hospital in South-west Nigeria.

Research Question

What are the militating stressors against the relatives of patients diagnosed with psychotic disorder psychological well-being in Neuropsychiatric hospitals in South-west Nigeria.

Methods and Materials

The interview method was used to obtain data from the respondents to assess their psychological well-being, militating stressors against their psychological well-being.

The researcher selected respondents using purposive sampling. This was based on the type of study population needed which included the relatives of patients diagnosed with psychotic disorders were the ones interviewed. The same was terminated when saturation was reached. A total of 44 respondents participated. Necessary

information based on their psychological well-being was provided with the militating stressors hindering their psychological well-being.

Inclusion Criteria:

All relatives of patients diagnosed with psychotic disorder present during hospital ward rounds and visiting hours who consent to participate in the study.

Exclusion Criteria:

Relatives of patients diagnosed with psychotic disorder who themselves have suffered or suffering from psychotic disorder.

Ethical Consideration

Ethical approval was obtained from the Health Research and Ethical Committee of Neuro-psychiatric hospitals in Yaba, Lagos State (FNPHY/HREC/2022/001/08/040) and ARO, Abeokuta, Ogun State (NHREC/O8/03/2021) before the commencement of the research. Confidentiality and anonymity were ensured. Informed consent from the study participants before data collection and the voluntary nature of the study was adhered to.

Results

S/N	Themes	Sub-themes	Categories
1.	Lack of autonomy	-Uneasy decision	- Indecision in bringing the patient for treatment - Difficulty deciding personal matter -Confused about the decision to take
2.	Acceptance of the situation	Maladaptive coping	-Feeling of sadness when the patient is seen in his/her poor mental state -Unbearable situation -Denial of the situation -Environmental discouragement -Difficult coping with the situation(patient can't be denied) -Having to make the situation a secret
3.	Insecure relationship with families and friends	Stigmatization	-Poor family support -Unsupportive friends and families -Segregation by people -Hiding sick relative -Being ashamed of the neighbourhood's reaction -Societal tag /labelling of patient -Stigmatization -Loss of social class(shame) -Societal rejection

			-Low self-esteem and inferiority complex
		Unsupportive family/friends	-Abandonment of the sick -Family sabotaging corrective treatment (visit to the traditionalist/ religious people) -Neglect by family/friend -Lack of financial support -Emotional instability and fear of the unknown
4.	Militating stressors	Financial burden	-Managing this type of illness is expensive -Constant visitation to the hospital is demanding - Unavailability of cash -Distance of the hospital warrants a huge amount of transportation - Borrowing of money to meet up with financial demand
		Reduced quality of life	-Depletion in physical health -Poor sleeping habits -Poor eating habits -Helplessness and hopelessness -Exhaustion from increased energy expended on dealing with patient -Neglect of self -Traumatic experience
		Failing health	Worsening medical condition
5.	Impact on physical well-being	Societal /Hospital danger	-Fear of being negatively influenced
	Impact on psychological well-being	Violent behaviour	-Fear and anxiety
		Low productivity	-Low quality of life -Fatigue -Poor concentration at work -Alteration in work
		Absenteeism	-Skipping of work -Lateness to work -Leaving of duty

S/N	Themes	Sub-themes	Categories
	Positive coping		
	Support system	Spiritual leaders	-Prayers from spiritual leaders/members -Attend a religious gathering -Visitation by church members -Financial support from religious affiliation
		Professional help	-Information about relative's illness
		Family and friends	-Encouragement from some friends and families -Rally round to help financially
	Coping Mechanisms	Meditation	-Sing songs -pray

			-Play and listen to music
		Socialization	-Attend social functions -Hang out with friends - Watching of TV. E.g. football
		Showing of love	-Visiting of the sick relative gives hope and relief
	Negative coping		
	Bad coping mechanisms	Substance abuse	-Drinking of alcohol
		Neglect	Avoidance of sick relative

The responses of the participants were analysed as related to a number of common themes, sub-themes and categories related to psychological wellbeing became apparent. The prominent of these themes were; lack of autonomy (uneasy decision), acceptance of the situation (maladaptive coping), personal relationship with others (stigmatization and unsupportive attitude of family and friends), militating stressors (financial burden, violent behaviour, reduced quality of life) and environmental relationship.

Lack of Autonomy

The majority of the participants could not make their own decisions on what form of treatment and where the patient would receive treatment without listening or consulting others on the issue affecting the patients. The family's consent is very essential to where the patient will be treated may be due to cultural background and mutual understanding in African culture. Some of the participants reported as saying:

"....I called the brothers, I told them that if I go without their consent, they may say I have killed their sister and it will result in problems for me and my family. When I was given the consent, I kicked off by bringing her here..." (P31, Yaba)

"...I begged some of the Elders in the family to assist me so that I can take him to somewhere where they can take care of him and monitor

him than before..." (P23, Aro)

"...the family agree to put him in a place he able to see such a thing again..." (P41, Yaba)

Acceptance of the Situation

The situation of having close relatives in such an environment and condition is psychologically depressing contributing to emotional torture. The majority of the participants reported that they were not happy about the condition of their relative, it makes them sad and feel discouraged about how they lived their life, imagining, waking up every day thinking of having someone to look for in a psychiatric hospital, it is unbearable. They reported by saying:

"...it's not a good experience. To have such a case, to have a family in such a case is very painful. Very very painful indeed..." (P4, Aro)

The only problem is that I think so much about him. How will he be fine? How will he be okay too. That is what fills my heart anytime I think about him mainly. So really there's nothing much (P14, Aro)

As humans that we are, we have not been happy about all this happening. ..." (P11, Aro)

Aside from the work, psychologically, nobody is happy, nobody is happy. We wake up every day, your mind goes to him, thinking about him and praying for him for not being together. So, psychologically, nobody is happy... (P30, Yaba)

It's emotional when you see your beloved one in a state like this, it touches you. It weighs down on us because most times I cry at night. ... (P36, Yaba)

In fact, there was one participant who could not bear the rigour of the problem from his wife to the extent of thinking of going into polygamy. He reported as saying:

I got so tired. So, as the thing was going on, I got so tired, I called the relations that am tired and that am going to look for another wife because my parents are not from a polygamous family and this lady (the wife) will force me go into it because if I want to take care of her, she feels so stubborn (P31, Yaba)

However, very few participants claimed the situation was under control due to their level of spiritual belief:

"... I am in control. When you don't take care of a situation then it can go bad but I know this is a situation I have to take care of and I have already taken care of the spiritual aspect now here for the physical ..." (P12, Aro)

Personal/Environmental Relationship

The majority of the participants were secretive about the condition of the patient so as to maintain a smooth relationship with neighbours and eradicate being tagged with

names in society with the situation of the patient. The society at large stigmatises those suffering from mental illness and their relatives, they are likely to segregate their family may be due to a lack of understanding about the disease. Some reported as:

"...anytime they come to ask after her I simply tell them she's not around, we hid it from the public" (P10, Aro).

I know they will be discussing it but is behind my back (P11, Aro).

"... there's going to be stigmatization and I don't feel comfortable but I also tell them anybody can be sick" (P26, Yaba)

Sometimes when he comes around my neighbourhood, he can start shouting needlessly, making himself a public scene. Of course, I found this embarrassing (P1, Aro)

"... people around know because they saw the way he was behaving that day and this makes me feel bad because some people will not really know the issue and is not like everybody that is seen is mental. There are different types. And seeing people, they will just be saying 'this one is mad' this one is mad" (P29, Yaba)

However, few of the participants did not subscribe to either stigma or shame. He said it is because the majority of our people lack an understanding of mental disorders. He quoted as:

"... is based on the level of knowledge they have. If you have depression you see a

psychologist for counselling. It is ignorance that will make you think such a person is mad. Go to the nearest psychiatric hospital so that you will get treated mental health is just like malaria. It is just like diarrhoea, you get treated. If your mental health is being disturbed at the moment go and correct it" (P12, Aro).

"...I felt very ashamed and shook it off. Even now, I carry my face to one side not looking or hearing at what people will say." (P34, Yaba)

In addition, some of the participants could not hold back to attend social events such as parties, going to church and other places to have fun.

"... does not stop me from attending weddings, I go to worship, I go church, I go to my town union meeting, I go for my ministry, work. I interact with my neighbours..." (P37, Yaba).

We still do a little of all these activities and engagements. Though we are thinking about it, we are not overthinking because this can lead to illness..." (P13, Aro)

Environmental Mastery

The majority of the participants lacked mastery of the situation as they could not manage their daily activities such as work schedule and concentration at work. Instead, they were carried away with time to visit the sick and busy thinking of the outcome of the treatment of their patient.

I'm not able to catch up with my own schedule I misplaced my phone and till now I've not been able to retrieve my line. (P14, Aro)

"...it affects even though one is in the highest level of enjoyment and one is happy and someone calls that bro to come o your brother is around it affects one somehow. There was a time I was even crying in the office, people were asking me what is the problem? I just said don't worry ... (P18, Aro)

"I'm actually retired there's nothing I'm doing and I don't want to engage in other things because of him" (P25, Yaba)

"...when something is affecting one in the family, it is affecting all because the twin sister and I are supposed to be at our places of work today but we have forfeited that to come here for love and for the relationship" (P30, Yaba)

...for me to leave my place of work and other things.." (P33, Yaba)

"...makes me lose concentration of what am doing at that time" (P35, Yaba).

Militating Stressors

The relatives of psychiatric patients identified some militating stressors that lead to depreciating the psychological wellbeing which include financial burden, violent behaviour of the patient and declining quality of life. The majority of patient's relatives identified majorly financial burden they experience such as borrowing money to take good care of the patient (buying of drugs and paying the hospital bills), transportation fare for hospital visitation and distance of the health facility

"..I'm getting exhausted and will have to excuse myself. Bye." (P1, Aro)

"...because of their financial limitation they could not carry on there.." (P7, Aro)

"Sometimes when I don't have the money with me my heart beats faster and I get worried" (P22, Aro).

"It is stressful spending money and the bill itself is high as well" (P32, Yaba)

"I have to be borrowing money to take care of him. So, the financial burden is wearisome" (P35, Yaba)

"...visit him is demanding because I don't stay close to the hospital environment" (P38, Yaba)

However, it is worth noting that few of the patients were sponsored by the church

"The church has a department of welfare to take care of that.." (P7, Aro)

"It is the church's duties and they are trying what they can to see that they assist the family" (P42, Yaba)

It was also reported that some of the patients displayed violent behaviour or nagging attitudes towards the family members and within the neighbourhood, this has also contributed to declining psychological well-being as it reduces self-esteem in society.

He causes trouble when inside after taking the substance. He refuses bluntly to obey instructions when instructed. (P28, Yaba)

She was a bit violent. (P9, Aro)

"...If she sees anyone that she knows instead of greeting she will chase the person and start fighting the personwhen she entered into the hospital environment and she saw that we were here, she became very violent and almost opened the door." (P24, Aro)

Coping Strategies

The majority of the participants identified various positive and negative coping systems. Some the positive coping methods adopted include family/friends financial and moral support, prayer, listening to music or singing, listening to professional counselling and reading books on how to cope with the situation, watching TV especially football and attending to religious activities while among the negative coping system are abandonment of the patient, drinking of alcohol

My religious life..it has even made me to be more dedicated because the spiritual controls the physical (P9, Aro)

Let me tell you something, as you counsel people in your profession always tell them to go to God. (P12, Aro)

I go to my church and put it into prayer. You know without God... Doctor care but God heals (P21, Aro)

Nothing else can be done except to keep praying for her and await the best from Him. So, we are hopeful and optimistic about her health status (P32, Yaba)

In fact, neighbours came around to support us and they were all saying good things about her. (P24, Aro)

Yes family members are supporting us... Yes our friends are supporting us too (P6, Aro)

In fact we just finished a wedding ceremony last week for one of our cousins. We would have been here together. (P17, Aro)

I have a lot of people, my sisters that use to encourage me and when I look at my other three daughters, I assume if something happens to me, (P37, Yaba)

I hang out with friends, eat, drink, party. Like last Saturday I was in a party (18, Aro)

As you see me I don't know how to think. I listen to the songs of Pasuma and Wasiu (P10, Aro)

Anytime I have problems I don't allow it get into my mind. I cool down with alcoholic drinks. I take one bottle and sleep and when I wake up I'm done with the problem that is why I can't be SU. (P22, Aro)

..what I do is that I sit among elders where I can learn things and listen to them. They share different things, it can be about Nigeria, different nations, we argue about some things, we later agree about some and by time it is an evening I would feel

better as I'm going home (P24, Aro)

what he lack is visit. He feels abandoned and I told him that he knows am caring and that he will always check up on him. (P28, Yaba)

We all have a problem we cover under our cloth (P41, Yaba)

Discussion

Research Question

What are the stressors militating against the psychological well-being of relatives of people diagnosed with psychotic disorder at Neuro-Psychiatric Hospitals in South-West Nigeria?

Findings from this study revealed lots of militating stressors to the relatives' psychological well-being such as financial limitation, receiving inadequate information about the situation of admission, environmental stress and patient's violent behaviour. Some of the participants identified financial burden of having to buy drugs and pay some hospital bills. Also, borrowing money was a lot of stress, distance of the hospital to their place of abode and violent behaviour of the patients all, resulting in burden. Some of the participants quoted as "It is stressful spending money and the bill self is high as well"; "I have to be borrowing money to take care of him. So, the financial burden is wearisome"; "...visit him is demanding because I don't stay close to the hospital environment" and "...If she sees anyone that she knows instead of greeting she will chase the person and start fighting the person ..."

This is connected to the study carried out by Yu et.al. (2017) who opined that, increased family burden is associated with caring for a sick relative. Half of the caregivers reported moderate to severe family burden and among the six domains of family burden identified, financial burden was the commonest. These results were in line with Aubeeluck and Luximon-Ramma (2020) who reported that

the career emotion, physical, social and financial health contributed significantly to increased burden of care. These carers also complained of financial difficulties and were dissatisfied with the social services received. All these contributed to poor mental well-being, poor physical and social health and an increase in financial worry. In addition, a qualitative study by Izon et. al. (2020) affirmed that, financial, unmet needs, inadequate confidence, unstable emotion increased the level of worry, negatively impact their own health leading to reduced quality of life, wellbeing and psychological distress. Also, Mehra et.al. (2020) study showed that highest burden was reported on finance, followed by disruption of family routines, leisure activities, family interaction, effect on the physical health and mental well-being. Janah and Hargiana (2021) in their study, result showed high risk of violent behaviour in patient being cared for, their stress level was also measured and same revealed that most of them which is about three-quarter fell into the category of medium stress, while some caregivers had severe stress levels.

Furthermore, the issue of the financial burden is a serious militating stressor to the extent that some families could not take their psychotic disorder patient to the hospital for several months or years till the time support came from e.g. church to their rescue to take charge of the financial treatment in the hospital. This is in line with Grover *et al.* (2017) who affirmed that relatives' mental well-being is compromised because of having to care for their ill relatives with limited resources to engage in problem-solving. This further complicated their exhaustion and avoidance of obligation. There is also the presence of financial burden and stigma. Meanwhile, some availed themselves of emotion-focused strategies which might not be healthy for some of them while the healthy ones derived succour in religious rituals and social interaction. Cantillo-Medina *et al.* (2022) and Stanley *et al.* (2022) reported that the caregivers perceived a higher overload of

distress ranging like: fatigue, loss of job, cost of the disease, fear of delegating care and love, support for carer and support to care and assertion affirmed that the rate of psychological distress experienced by relatives was due to caregivers' age, educational level, occupation and marital status were found to be positively correlated to the psychological distress while caregiver's gender and psychiatric diagnosis of the relative were found not to be correlated to psychological distress.

Conclusion

Based on the findings of this study, it was concluded that relatives of patients diagnosed with psychotic disorder encountered a high burden of care, and decreased quality of life which compromises their physical and psychological well-being.

Recommendation

Cautious measures to improve the psychological well-being of relatives be promoted in the form of educational intervention by nurses and other multidisciplinary teams be considered to enhance their quality of life and mental state.

Conflict of Interest

No conflicting interest whatsoever

Acknowledgement

We would like to thank the authors and participants who contributed to the research.

References

- Aubeeluck, N. D., & Luximon-Ramma, A. (2020). The burdens of family caregivers of schizophrenia in Mauritius. *SciMedicine Journal*, 2(3), 118-131.
- Ayalew, M., Workicho, A., Tesfaye, E., Hailesilasie, H., & Abera, M. (2019). Burden among caregivers of people with mental illness at Jimma University Medical Center, Southwest Ethiopia: a cross-sectional study. *Annals of General Psychiatry*, 18(1), 1-11

- Cantillo-Medina, C. P., Perdomo-Romero, A. Y., & Ramírez-Perdomo, C. A. (2022). Characteristics and experiences of family caregivers in the mental health setting. *Revista Peruana de Medicina Experimental y Salud Pública*, 39, 185-192.
- Grover S, Avasthi A, Singh A, Dan A, Neogi R, Kaur D, *et al*. Stigma experienced by caregivers of patients with severe mental disorders: A nationwide multicentric study. *Int J Social Psych*. 2017;63(5):407–417.
- Holtfreter, K., Reisig, M. D., & Turanovic, J. J. (2017). Depression and infrequent participation in social activities among older adults: the moderating role of high-quality familial ties. *Aging & Mental Health*, 21(4), 379-388.
- Iseselo, M. K., Kajula, L., & Yahya-Malima, K. I. (2016). The psychosocial problems of families caring for relatives with mental illnesses and their coping strategies: a qualitative urban based study in Dar es Salaam, Tanzania. *BMC psychiatric*, 16(1), 1-12
- Izon, E., Berry, K., Law, H., Au-Yeung, K., & French, P. (2020). "I don't know how to fix it and sometimes it's so overwhelming" Identifying the barriers and facilitators for family caregivers supporting someone at high risk of psychosis: A qualitative study. *Psychosis*, 12(1), 57-67.
- Janah, M., & Hargiana, G. (2021). Levels of stress and coping strategies in family caregivers who treat schizophrenic patients with risk of violent behaviour. *Journal of Public Health Research*, 10(1_suppl), jphr-2021.
- Khoirunnisa, M. L., Hamid, A. Y. S., & Daulima, N. H. C. (2018). Family experiences in communicating with family members experiencing social isolation after hospitalization. *Enfermeria Clinica*, 28, 116-121
- Mehra, A., Kumar, A., Grover, S., Chakrabarti, S., & Avasthi, A. (2020). Relationship of stigma with burden and coping among caregivers of patients with severe mental disorders. *Indian Journal of Social Psychiatry*, 36(1), 11-18.
- Iseselo, M. K., Kajula, L., & Yahya-Malima, K. I. (2016). The psychosocial problems of families caring for relatives with mental illnesses and their coping strategies: a qualitative urban based study in Dar es Salaam, Tanzania. *BMC psychiatric*, 16(1), 1-12
- Stanley, N., Chinedu, N. N., Ada, O. B., & Aguiyi, C. S. (2022). Psychological Distress among Family Caregivers of Patients with Mental Disorders in Federal Neuropsychiatric Hospitals in Nigeria. *Clinical Research*, 3(1), 1-12.
- Udoh, E. E., Omorere, D. E., Sunday, O., Osasu, O. S., & Amoo, B. A. (2021). Psychological distress and burden of care among family caregivers of patients with mental illness in a neuropsychiatric outpatient clinic in Nigeria. *Plos one*, 16(5), e0250309.
- Yu, Y., Liu, Z. W., Tang, B. W., Zhao, M., Liu, X. G., & Xiao, S. Y. (2017). Reported family burden of schizophrenia patients in rural China. *PloS one*, 12(6), e0179425.