



PREVALENCE AND SEVERITY OF MENTAL HEALTH DISORDER AMONG ARABLE CROP FARMING HOUSEHOLDS IN BENUE STATE, NIGERIA



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Abstract: The purpose of this study is to determine the prevalence and severity of mental health disorders among farming households in Benue State, Nigeria. A total of 180 farming households were selected using multi-stage sampling technique. The data were collected from primary source using a set of questionnaire. Descriptive statistics were used for data analysis. Results showed that the majority (77.2%) of farming households in the study area had suffered from depression. The result revealed that the mental health disorder prevalence rate was 44.57% in the study area. Out of which, female members of households were the most hit with a mean of 2.79 persons, while that of males was 2.09 persons. On average, a household had 4.90 mental health disorder cases. The result also revealed that the prevalence mean age of mental health disorder cases was 49.94 years and 26.75 years for males and females respectively. The analysis also showed a mean severity of 2.37 and a severity index of 78.89%, with 1.1111 family members incapacitated, of which 0.34 accounted for males and 0.77 females. It was concluded that there is an increasing prevalence and severity rate of mental health disorders among arable crop farming households in Benue State.

Key Words: Disorder, Farming, Households, Mental Health

Introduction

The importance of health as a form of human capital cannot be over-emphasized. Good health and productive agriculture are essential in the economy of any nation, especially in the fight against poverty (Alam and Mahal, 2014).

Mental illnesses such as depression and anxiety are highly rampant in low- and middle- income countries like Nigeria (Adu, *et al.*, 2013). People in Nigeria lack adequate knowledge of mental health disorders and have various misconceptions for its underlying causes such as drug and alcohol use (80.8%), possession by evil spirits (30.2%), traumatic event or shock (29.9%), stress (29.2%), and genetic inheritance (26.5%), and very few people believe that biological factors or brain diseases are the underlying cause of the development of these disorders (Adu, *et al.*, 2013). One in four Nigerians suffers from mental health illness, but help is hampered by tight budgets and a lack of skilled staff

(<https://www.aljazeera.com/economy/2019/10/2/nigeria-has-a-mental-health-problem>). 3 out of 10 Nigerians have one form of mental illness or the other, presently there is no mental health legislation in Nigeria (<https://www.vanguardngr.com/2022/01/3-out-of-10-nigerians-are-mentally-sick-reps/>). According Njaka, and Ezeruigbo,(2020), in their work prevalence of mental disorders in Abakaliki, Ebonyi State, Southeastern Nigeria found out that, the prevalence of mental disorders among the respondents as 70% depressive disorders, 52.3% substance use disorder-tranquilizers (34.9%) and stimulants (15.8%) were the commonly used, while 85.3% suffered anxiety disorders. These were common among age range of 19 to 28 years-those with higher education and unemployed. Njaka, and Ezeruigbo, (2020), further reported that more females had mental disorders except substance use disorders, which was higher in males

(53.4%). Lasebikan, *et al.*, (2012), in their study prevalence of mental disorders and profile disablement among primary health care services users in Lagos Island, Nigeria reported that the prevalence of mental disorders in primary care settings ranges between 10% and 60%, generalized anxiety disorder, 4% to 15%, harmful alcohol use and dependence, 5% to 15%, and somatization disorders, 5% to 11%. The prevalence of mental health disorders could be as high as 30% in the elderly age group while about 20% of the children and adolescent were found to have mental health problem in Nigeria. Fiona, *et al.*, (2019) estimated that prevalence of mental disorders (depression, anxiety, post-traumatic stress disorder, bipolar disorder and schizophrenia) was 22.1% at any point in time in the conflict-affected populations. The prevalence of mental health disorders among the World's population has been rising quickly in recent times, and it is estimated that by the year 2030, mental disorders will be as common and disabling as diseases like AIDS, Diabetes, Alzheimer's diseases and so on. In Nigeria alone, about 20-30% of the population suffers from mental disorders, which is a very significant proportion of individuals (<https://sfdp.org/2021/02/02/mental-health-conditions-in-nigeria-tackling-the-culture-of-neglection/>). The 6-month prevalence of generalized anxiety disorder and 12-month prevalence rate of major depression was 2.3 and 4.0% respectively (Badru, *et al.*, 2018). Gustavson, *et al.*, (2018) concluded that common mental disorders are highly prevalent among young adults in the twenties, and somewhat less prevalent in the thirties/forties. Those who suffer from one mental disorder in the twenties are at considerably increased risk for suffering from a disorder ten years later as well. This may have significant implication for young people's ability to attain education, establish a family, and participate in occupational life.

In Nigeria, an estimated 20-30 per cent of the population is believed to suffer from mental health disorders. This is a significant number considering Nigeria has an estimated population of over 200 million (Federal Ministry of Health, (FMOH, 2018), NPC, 2015). Unfortunately, the attention given to mental health disorders such as depression, anxiety, and substance abuse-related disorders will disable more people than complications arising from HIV/AIDS, heart disease, accidents, and wars combined. This astonishing statistic poses serious questions as to why mental health disorders are not given the attention it currently receives (Vanguard, 2018).

Mental health disorders are usually one of the three leading causes of disability, together with cardiovascular disease and musculoskeletal disorders. In the EU, for example, mental health is a major reason for granting disability pensions (World Health Organization, 2000). Africa has approximately 33 million small farms (less than 2 hectares per farm), representing 80% of all farms in the region. Due to the small sizes of farms and associated low incomes, the agricultural sector depends largely on manual labour in Nigeria and Benue State in particular. The farms are, therefore, vulnerable to household labour disruptions, mainly due to ill health (mental health issues). Evidence from the literature and past studies have revealed that in South Western Nigeria (Abeokuta), for instance, one-third of rural families affected by mental health disorders like depression experience a 50% reduction in agricultural output which is a threat to food security (Ogunniyi, 2011). This also means that the time spent on agricultural-related activities will be reduced drastically because of depression. A woman with a depressed husband spends less than 60% of her time on agricultural production activities in the USA (United States Agency for International Development, (USAID), 2009). Benue State the "Food Basket of the Nation", with 70% of its population depending on agriculture as their main source of livelihood (BNARDA), 2004). Against this background, it becomes necessary to gain knowledge of the prevalence and severity of mental health disorders among arable crop farming households in Benue State, as the findings from the study would reveal the common mental health disorder among arable crop farming households as well as prevalence and severity of mental health disorder in Benue State.

In 2019, 1 in every 8 people, or 970 million people around the World were living with a mental disorder, with anxiety and depressive disorders the most common (<https://vizhub.healthdata.org/gbd-results/>). There are many types of mental disorders. In 2019, 301 million people were living with an anxiety disorder including 58 million children and adolescents, 280 million people were living with depression, including 23 million children and adolescents, 40 million people experienced bipolar disorder and Post-Traumatic Stress Disorder (PTSD). Schizophrenia affects approximately 24 million people or 1 in 300 people Worldwide, 14 million people experienced eating disorders, such as anorexia nervosa and bulimia nervosa, including almost 3 million children and adolescents while 40 million people including children and adolescents were living with conduct-dissocial disorder (<https://vizhub.healthdata.org/gbd-results/>). The survey exposed the common mental health disorders and revealed

the prevalence of mental health disorders among arable crop farming households in Benue State. The knowledge gained from study will be of great importance to Government in formulating good policies on treatment and management of mental health disorders in the country.

This study is guided by the Health Belief Model. The health model is a theoretical model that guides health promotion programs. It explains and predicts individual changes in health behavior. The Health Belief Model (HBM) addresses the individual's perceptions of the threat posed by a health problem (susceptibility, severity), the benefits of avoiding the threat, and factors influencing the decision to act. According to El-Osta and Kurzrock (2011), persons with good health were considered likely or probable to have a more depth of persons available for farming activities, their farming production yield will be higher than that of people affected with unwellness. The yield decline is equivalent to decline in financial gain (earned) accruing over a given period of time to a system of production, distribution as well as consumption; this is always calculated as mean day by day pay.

Materials and Methods

The study area

The study area for this research is Benue State, Nigeria. "The Food Basket of the Nation" The State was created in 1976, with its name derived from River Benue, the second largest river in Nigeria. The administrative headquarters is Makurdi, and it is composed of 23 Local Government Areas and 423 Council Wards. The State is located in the North Central region of Nigeria, the transition zone from the Northern and Southern ecologies. It lies between longitude 6031' E and 100' E and Latitudes 6030' N and 8010'N (BNARDA, 2004). Agriculturally, the State is divided into Zone A, Zone B and Zone C. The State has favourable agro-climatic ecologies for arable crops, tree crops and livestock production and enjoys two distinct seasons; the rainy season, from April to October, and the dry season, from November to March. Farming is the major occupation of the people of Benue State (BNARDA, 2004).

Sample procedure and sample size selection

The population for this study consists of all arable crop farming households in Benue State. Sample sizes of 180 respondents were selected using a multi-stage random sampling technique. The first stage involved the purposive selection of three agricultural zones (A, B and C) in the State. The second stage involved selection of one local government area from each of the selected three agricultural zones using a simple random sampling technique; the third stage involved random selection of two council wards from each of the selected Local Government Area. The final stage involves the development of a sample frame for each of the selected council wards and using the proportional allocation of 5% (0.05). Hence, 180 farming households were selected using a simple random sampling technique to give every member of the population a fair chance of being selected.

Methods of data analysis

The data were collected from primary source using a set of questionnaire. Data collected for the study were analyzed

using descriptive statistics such as mean, frequency and percentages.

Results and Discussion

The percentage distribution of mental health disorders common in farming households

The mental health disorders common in farming households in the study area are presented in Table i. The respondents were generally affected by one or other forms of mental health disorder. The analysis of the results shows that the majority (77.2%) of farming households in the study area had suffered from depression. This is in keeping with the findings of Audu, *et al.*, (2013), that mental illnesses such as depression and anxiety are highly rampant in low- and middle- income countries like Nigeria. Akinade (2012) also reported that depression yearly affects more than 19 million persons living in the United States of America. He further opined that depression is no respecter of age, gender, class or race. This is also in keeping with the findings of Njaka, and Ezeruigbo,(2020), in their work prevalence of mental disorders in Abakaliki, Ebonyi State, Southeastern Nigeria found out that, the prevalence of mental disorders among the respondents as 70% depressive disorders, 52.3% substance use disorder-tranquilizers (34.9%) and stimulants (15.8%) were the commonly used, while 85.3% suffered anxiety disorders. This could result from severe sadness, loss of gratification in life, negative thoughts, feelings of worthlessness and excessive or inappropriate guilt and lack of motivation faced by farming households. Men are prone to developing substance abuse and social-resistant problems, while women are more likely to develop anxiety and depression. The result also agrees with the American Psychological Association (2000) report that depression accounts for the highest proportion of the burden related to psychological disorders. This contradicts the findings of the World Health Organisation (2001) that depressive disorders ranked fourth due to their global burden of disease and are expected to be ranked second by 2020.

Similarly, 51.1% of the respondents had suffered from anxiety, 25.6% of farming households in the study area suffered from loneliness, 57.8% of the respondents suffered from stress, 20.6% of the farming household suffered withdrawal from people, 44.4% of the respondents suffered high blood pressure, 33.9% suffered from fear, 55.0% of farming households in the study had sleeplessness, 32.2% of the respondents suffered from talking to oneself, 41.7% of the respondents had low self-esteem, 20.0% of farming households in the study area suffered detachment from reality (delusions) while 25.0% of the respondents had obsessive-compulsive disorder. This result aligns with a study piloted by Ogunsemi *et al.* (2010), who established that stress, depression, and anxiety are common among primary healthcare attendees, as nobody is immune to stress. It can be beneficial and, at the same time, damaging. It can lead to tension, anxiety, and depression. United States National Institute for Occupational Safety and Health (NIOSH, 2015) reported that Job stress is the severe bodily and emotional reaction that happens when the work specifications do not equal the worker's needs, skills, and wealth. Stress causes deprived health and can upsurge rates of occupational harm and accidents.

Table 1: Distribution of respondents by mental health disorders common among farming households

Common mental health disorder	Frequency	Percentage (%)
Depression	139	77.2
Stress	104	57.8
Sleeplessness	99	55.0
Anxiety	92	51.1
High Blood Pressure	80	44.4
Low self-esteem	75	41.7
Fear	61	33.9
Talking to oneself	58	32.2
Loneliness	46	25.6
Obsessive-compulsive disorder	45	25.0
Withdrawal from people	37	20.6
Detachment from reality	36	20.0

Source: Field Survey, 2019.

Prevalence rate and severity of mental health disorder among Farming Households

The prevalence rate and severity of mental health disorders among the farming households in the study area are presented in Table 2. The analysis of results showed a prevalence rate of 44.57%. The result also showed that female members of households were the most hit, with a mean of about three persons, while that of males was about two persons. On average, a household had about five mental health disorder cases. This shows a high prevalence of mental health disorders among farming households, considering the Federal Ministry of Health, FMOH (2018) findings that the current prevalence of mental health disorders in Nigeria is 20-30%. In Nigeria alone, about 20-30% of the population suffers from mental disorders, which is a very significant proportion of individuals (<https://sfdp.org/2021/02/02/mental-health-conditions-in-nigeria-tackling-the-culture-of-neglection/>). 3 out of 10 Nigerians have one form of mental illness or the other, presently there is no mental health legislation in Nigeria (<https://www.vanguardngr.com/2022/01/3-out-of-10-nigerians-are-mentally-sick-reps/>). The result corroborates the result of Dauda (2016), who alluded that the prevalence of mental health disorders in Nigeria varies between 25-38% depending on the area of the country surveyed. The result is also in keeping with the projection of Dauda (2016) that mental health disorders are not uncommon, and the global burden of mental health disorders is projected to increase by 15% by 2020. By this time, it is estimated that common mental health disorders, such as depression, anxiety and substance abuse-related disorders, will disable

more people than complications arising from AIDS, heart disease, accidents, and wars combined. This result showed that the prevalence rate had increased from 30% to 44.57% in farming households in Benue State. Onyemelukwe (2016) reported that the prevalence of mental health disorders in Nigeria ranges from 20-30%.

However, World Health Organization (2013) submitted that 25 over 90 million people suffered from drug and alcohol problems and over 150 million persons had depression at any time, and around one million persons commit suicide annually. A greater preponderance of male mental health disorder cases was earlier observed by Alam and Mahal (2014). The reason for this could be that males in the area consumed much alcohol and drugs, had more engagement in physical activity and worried more about their responsibilities of providing for their families. This study contradict the work of Njaka, and Ezeruigbo,(2020), in their work prevalence of mental disorders in Abakaliki, Ebonyi State, Southeastern Nigeria reported that more females had mental disorders except substance use disorders, which was higher in males (53.4%). Also, the Study of Alam and Mahal (2014) contrasts with the current findings on the prevalence of mental health disorders in Nigeria in that female members of households were the most hit, with a mean of about three persons, while that of males was two persons. It was reported that research conducted across racial groups revealed a lifelong pervasiveness of depression and anxiety in females than males (World Health Organisation and International Consortium of Psychiatric Epidemiology, 2000). Numerous studies have shown that single mothers who earn low income are more prone to depressive disorder than other people (Salsberry *et al.*, 1999). The result is also in keeping with the report of the World Health Organisation (2017) that men are prone to developing substance abuse and social resistant problems while women are more likely to develop anxiety and depression. Reviews on the association between social support and depression experience in males and females revealed controversial findings. While some found that social support equally predicts depression recovery for both gender, others showed differences for both genders (Bebbington, 1996). Dalgard *et al.* (2006) concluded that gender variations do not explain the higher rate of depression in women in adverse events, social assistance or susceptibility. Women reported more anxiety-associated variables than men. Male and female differences in depressive indications seem to arise in early puberty and, at that point, exist during adult life expectancy (Nolen-Hoeksema *et al.*, 1999). Steady discoveries point out that pubescent teenage girls have depressive indications at an earlier stage of development than teenage boys. Emergent male and female differences can be instigated by individual susceptibility, the stress of lifespan, and the challenge of adolescent transition. Both male and female genders experience sexual maturity at almost the same age. However, it is argued that girls are more susceptible to depression than boys even before adolescence (Ge *et al.*, 2001). This could be a result of females been emotional beings than males. Hence they are more prone to depression when faced with domestic violence, the death of loved ones and increased unhappiness in life.

The prevalence mean age of mental health disorder cases was 49.94 years for males and 26.75 years for females, with maximum age of 75 and 60 years for males and females, respectively. This implies that females are hit with mental health disorders early in life than male; also, mental health disorder reduces in female as they advance in age than male. Lasebikan, *et al.*, (2012), in their study prevalence of mental disorders and profile disablement among primary health care services users in Lagos Island, Nigeria reported that the prevalence of mental health disorders could be as high as 30% in the elderly age group while about 20% of the children and adolescent were found to have mental health problem in Nigeria. This result agrees with the findings of Elegbeleye (2013) that the prevalence of mental health disorders varies across ages considerably: whereas in other the incidence may increase remarkably in young adults between (13-35 years), this variation could be that young girls from the age of 13 undergo biological changes that makes them more emotional, they started thinking of how to settle in life, whom to marry, pair pressure, etc. these exposes them to depression and other mental health disorder earlier than boys. Piccinelli and Wilkinson (2000) argued that with few exemptions, females have a depressive abnormality (from mid-life through adulthood) more than males. Women are more susceptible to mental illness than men, while males are more vulnerable to alcohol disorders than females.

On the other hand, boys aged 20 may likely face peer pressure, seeking independence and so on. In most populations, a decrease in prevalence is seen in the oldest age group of 60 and above for females and 75 and above for males. Poor and unhealthy farmers may be disabled to work. This affects productivity and income, thus perpetuating a downward spiral into ill health and poverty in a vicious cycle which will further jeopardize food security and economic development in the study area.

The results showed a mean household size of 11.19. The household has implications for labour; the larger a household size, the more available labour it would likely have for farm work. The analysis also showed that 0.1444 people died on average from mental health disorder prevalence, with male deaths accounting for a higher mean of 0.09 and women's 0.06. Deleire and Manning (2003) reported that large households complement labour to enhance production and reduce the cost of hired labour. A household death affects labour availability as healthy individuals divert their time and energy from the farm to mourn and attend the funeral and related matters. These have an impact on food crop production. The causes of death were attributed to complications such as high blood pressure leading to stroke, low immune status, the contribution of herbal concoctions with unknown active ingredients, high cost of treatment and ignorance are contributory factors (Ogunniyi, 2011). He asserted that effective intervention to reduce mental health disorder-related mortality is not comprehensive.

The results showed a 78.89% severity index with 2.37 mean severity with 1.11 family members incapacitated, of which 0.34 account for males and 0.77 for females. This implies that mental health disorder is very severe in the study area. The implication of this can be traced to the loss of man days due to mental health disorders such as

depression, anxiety, and others which affect the productivity of its victims. The National Institute of Mental Health approximated that three million and above adults who are between 18 and 68 years have a severe mental disorder. Due to the small sizes of farms and associated low incomes, the agricultural sector depends largely on manual labour in Nigeria and Benue State in particular. The farms

are, therefore, vulnerable to household labour disruptions, especially due to ill health (mental health disorders). In South Western Nigeria (Abeokuta), for instance, one-third of rural families affected by mental health disorders like depression experience a 50% reduction in agricultural output, threatening food security (Ogunniyi, 2011).

Table 2: Prevalence rate and severity of mental health disorder in Farming Households

Variable	Minimum	Maximum	Mean	Standard deviation
Mental health disorder cases	1	16	4.90	2.600
Male affected	0	7	2.09	1.367
Female affected	0	10	2.79	1.996
Age of male affected	20	75	49.94	9.979
Age of female affected	13	60	26.75	8.695
Prevalence rate	8.33	100.00	44.57	18.20719
Household size	4	26	11.19	4.113
Death from mental health disorder	0.00	6.0	0.1444	0.6860
Male deaths	0	5	0.09	0.488
Female deaths	0	2	0.06	0.274
Family members incapacitated	0.00	7.0	1.111	0.42166
Males incapacitated	0	3	0.34	0.590
Females incapacitated	0	5	0.77	1.046
Severity	1	3	2.37	0.732
Severity index		78.89		

Source: Field survey data, 2019.

Conclusion

The study concludes that there is an increasing prevalence and severity rate of mental health disorders among arable crop farming households in Benue State. Its prevalence is rapidly rising due to the death of loved ones, poverty, decreased enjoyment of life and substance abuse in the farming households. The study also concludes that the respondents were affected by one or other forms of mental health disorder. However, the study area's most common mental health disorder was depression, followed by stress, sleeplessness and anxiety.

Recommendation

Based on the findings of this research work, we recommend that the provision of adequate mental health services

coupled with a reduction in the cost of treatment by providing treatment subsidies and financial aid by government or international donor agencies and institutions such as World Banks to finance the cost of medication, care and complications associated with mental health disorder free of charge.

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