PSYCHOPATHOLOGICAL SYMPTOMS OF INDIVIDUALS IN IGBO COMMUNITIES OF SOUTH-EAST NIGERIA: A NARRATIVE REVIEW

Nnaemeka Chukwudum ABAMARA¹, Miriam Oluchukwu AGBIRIONWU¹ Onyinye Pricilla OBIKA¹ Cynthia Nwanneka UDEZE¹

¹Department of Psychology, Faculty of Social Sciences, Nnamdi Azikiwe University, Awka Anambra State Nigeria

oluchukwumiriam@gmail.com, obikajenny@yahoo.com, cn.onyejiaka-udeze@unizik.edu.ng

Author for Correspondence Orcid ID: https://orcid.org/0000-0002-3425-4709; Email: nc.abamara@unizik.edu.ng, abamaranc@kiu.ac.ug

ABSTRACT

The individuals in some Igbo communities have been studied and critical identification of their psychopathological symptoms has been determined through oral interviews and observation. These symptoms include but are not limited to fatigue, irritability and manifestation of the ogbanje spirit, which have hampered the performance index of individual personalities. The effects of these symptoms on the overall mental well-being of individuals in the Igbo communities are of great concern. Based on this information, possible psychotherapeutic prophylaxis has been suggested to address these symptoms and improve the mental well-being of the individuals. These methods include cognitive-behavioral therapy, interpersonal therapy, and psycho education. Further research and evaluation are required to determine the effectiveness of these methods and to tailor them to the specific needs of individuals in Igbo communities..

Keywords: Psychopathological Symptoms, Igbo Communities, Nigeria, Narrative Review.

INTRODUCTION

The term psychopathological symptom is made up of two words; 'psychopathological' and 'symptom'. To have an accurate understanding of this term is by starting to explain what the two words mean before delving into the definition of the term itself. The term "psychopathology," from the Greek $\psi v \chi \eta'$ (psyche) for "soul" or "spirit," $\pi \alpha' \theta o \zeta$ (pathos) for "suffering," and λογότυπα (logos) for "reason," "discourse" or "opinion," roughly translates into "teachings of the sufferings of the soul" as was coined in 1878 by the German psychiatrist Hermann Emminghaus [1]. Essentially, psychopathology can be said to be the study of diseases of the mind (its causes, nature and effects). It is sometimes said to be a deviation from a healthy or normal condition [2]. According to American Psychiatric Association [3], symptoms are subjective experiences reported by the individual, such as feelings of sadness in depression or auditory hallucinations in schizophrenia. They are subjective because they represent the complaints of the patient rather than objective observations made by the examiner. Therefore, psychopathological symptoms can be defined as subjective experiences of an individual that originate from a disease or a deviation from the normal condition of the mind. Dysfunctions (or psychopathological signs and symptoms as we call them) can be described as extremes of variation of normal adaptive mechanisms [4]. Butcher et al [5] emphasizes that psychopathological symptoms include any thoughts, emotions, or behaviors that deviate from societal norms, cause significant distress, impair daily functioning, or pose danger to oneself or others. They are manifestations of mental disorders, encompassing a wide range of cognitive, emotional, behavioral, and perceptual disturbances. These symptoms can indicate underlying mental health issues and vary significantly depending on the specific disorder.

CAUSES OF PSYCHOPATHOLOGY

Various paradigms offer explanations for understanding the cause(s) of psychopathology. For example, the field of neuroscience holds great promise as we try to understand psychopathology within the nervous system, where levels of neurotransmitter and neuroendocrine activity interact in very complex ways to influence emotions and behaviour, as well as contribute to psychological disorders. According to the genetic paradigm, much of our development, as well as the majority of our behavior, personality, and even our IQ, is polygenic, or influenced by multiple genes. The psychodynamic, behavioral, and cognitive models offer useful insights into how childhood experiences, learning, and thought process affect how each of us experiences life. Therefore, to understand the causes of psychopathology, we must consider the interaction and integration of all relevant dimensions to enabling us arrive at a multidimensional integrative approach to the causes of psychological disorders.

1. Genetic and Biological Factors

- **a.** Genetic Predisposition: There is substantial evidence that genetic factors contribute to the risk of developing various mental disorders. Twin, family, and adoption studies have consistently shown that genetics play a significant role in disorders such as schizophrenia, bipolar disorder, and major depressive disorder [6, 7].
- **b.** Neurobiological Abnormalities: Brain structure and function abnormalities are linked to psychopathology. For instance, reduced volume in the prefrontal cortex and amygdala has been associated with depression and anxiety disorders [8].
- **c.** Neurotransmitter Dysregulation: Imbalances in neurotransmitters, such as serotonin, dopamine, and norepinephrine, are implicated in mental disorders like depression, anxiety, and schizophrenia [9].

2. Psychological Factors

- **a. Trauma and Stress**: Exposure to traumatic events, particularly during childhood, is a well-documented risk factor for developing psychopathology. Chronic stress can lead to alterations in brain function and increased vulnerability to mental disorders [10].
- **b.** Cognitive Patterns: Maladaptive thinking patterns, such as negative automatic thoughts and cognitive distortions, are central to cognitive models of psychopathology. These patterns are particularly relevant in mood and anxiety disorders [11].
- **c. Emotional Dysregulation**: Difficulties in managing and responding to emotional experiences are linked to several mental health conditions, including borderline personality disorder and mood disorders [12].

3. Environmental and Social Factors

a. Socioeconomic Status: Lower socioeconomic status is associated with higher rates of mental disorders. Factors such as poverty, unemployment, and lack of access to healthcare contribute to this increased risk [13].

- **b.** Family Environment: Family dynamics, including parenting style, family conflict, and parental mental health, can significantly impact the development of psychopathology in children [14].
- **c. Cultural Factors**: Cultural background influences the expression, perception, and prevalence of mental disorders. Stigma and cultural beliefs can affect the willingness to seek treatment and the type of interventions used [15].
- 4. Interaction of Factors
 - **a. Gene-Environment Interaction**: The interplay between genetic predispositions and environmental influences is crucial in understanding psychopathology. For example, individuals with a genetic vulnerability to depression may only develop the disorder if they experience significant life stressors [16].
 - **b.** Epigenetics: Epigenetic mechanisms, which involve changes in gene expression without altering the DNA sequence, are influenced by environmental factors and can contribute to the development of mental disorders [17].

PSYCHOPATHOLOGICAL SYMPTOMS OF INDIVIDUALS IN SOME IGBO COMMUNITIES OF SOUTH-EAST NIGERIA

1. Irritability; Irritability is an emotional process that is characterized by a proneness to experience negative affective states, such as anger, annoyance, and frustration, which may or may not be outwardly expressed. Irritability often includes a feeling that one's emotional responses are unjustified or disproportionate to the immediate source, but difficult to control [18]. The experience and expression of irritability can be influenced by biological, psychological and environmental factors such as hormonal fluctuations, cognitive patterns and stressful or traumatic life events. The lack of evidence on the prevalence of irritability in Nigeria leads one to draw conclusions from observations and suppositions. Several factors associated with irritability especially environmental factors are notably high in our society. Poverty, including the multidimensional and monetary types according to Onigbogi & Barnerjee [19] is at 63% and 40.1% respectively and high levels of stress among different populations [20]. Also Hirsch, Benda, Garvey, Roy [21], reported that Psycho-emotional symptoms including anger, frustration and irritability to be at 81.4% among women experiencing premenstrual syndrome in some Igbo Communities. An example of an outburst of irritability could be in a crowded marketplace where vendors are aggressively competing for customers. Two market traders, each trying to attract customers to their stalls, start arguing loudly over a potential buyer. One trader might accuse the other of encroaching on their space or trying to steal their customers, leading to a heated exchange of words. This could escalate quickly, with both parties raising their voices, using strong language, and becoming visibly agitated. Onlookers might gather, some trying to mediate while others take sides, adding to the chaotic atmosphere. Such outbursts of irritability are not uncommon in the Nigerian bustling marketplaces where competition is fierce, tempers can flare easily, and the noise and commotion create a volatile environment. Chronically high levels of irritability can also be indicative of an underlying medical or psychiatric disorder [18]. Irritability has been recognized as a transdiagnostic symptom that spans multiple psychiatric conditions, including mood and anxiety disorders, and is pivotal in the conceptualization and diagnosis of these disorders. [22, 23]. It is pertinent to not just consider irritability as a symptom but as a significant indicator and predictor of broader psychopathological conditions. This understanding helps in developing targeted interventions and improving diagnostic accuracy in clinical practice (24, 25).

- 2. Fatigue: This term has been used to technically describe subjective experiences expressed as persistent and pervasive weariness, tiredness or exhaustion that has a marked effect on one's daily functioning [26]. Define fatigue is a "psychological state that encompasses feelings of tiredness, decreased motivation, and reduced performance capacity." They emphasize its multifaceted nature, including both mental and physical components. The definition given by Coppieters & Lenoir; Billones, Liwang, Butler, Graves & Saligan [27, 28] highlights the fact that the feeling of fatigue is not a result of physical exertion and neither goes away with rest or sleep. Fatigue as a psychopathological symptom has been a focal point in recent research, with studies exploring its impact, underlying mechanisms, and associations with various psychological disorders. They emphasized the prevalence of fatigue in various psychological disorders, noting that it is a common symptom in conditions such as depression, anxiety, and PTSD. Their study found that fatigue often exacerbates the severity of these conditions by impairing cognitive functions and reducing the capacity to engage in daily activities [28]. Further studies suggested that fatigue can be both a symptom and a perpetuating factor. Fatigue is reported by both healthy individuals and individuals with acute and chronic medical conditions and/or diseases (e.g., post-viral infection, cancer, depression, multiple sclerosis, and fibromyalgia). Eight fatigue dimensions were identified: physical, cognitive, mental, central, peripheral, emotional, motivational, and psychosocial dimensions of fatigue with physical fatigue being the most measured dimension [29]. Aghanji Mir [30] found the adult rates of chronic fatigue to be at 9.5% and the Igbos reported greater fatigue severity than other ethnic groups in Nigeria. Participants of the Igbo ethnic group attributed their chronic fatigue to factors such as 'stress, hard work, lack of healthcare, lack of funds and family problems'. Culture is a factor that greatly influences several aspects of one's life including behavioural, emotional, and psychological aspects. The 'hustling' spirit and communistic way of life of the Igbos together with collective factors such economic hardship, high unemployment rates and poor working conditions can lead to chronic stress and burnout, leading to the development of fatigue.
- **3.** Difficulty thinking or concentrating: Sometimes known as brain fog. According to Harmer, Lee, Rizvi & Saadabadi [31] Brain fog is a set of symptoms that include cognitive impairment, inability to concentrate and multitask, and short-term and long-term memory loss. This also refers to persistent challenges in maintaining focus, processing information, or making decisions, which significantly impair daily functioning and overall quality of life. This symptom can be associated with various mental health conditions, including depression, anxiety disorders, attention-deficit/hyperactivity disorder (ADHD), and stress-related disorders. High levels of poverty, unemployment, insecurity and political instability contribute to chronic stress, which can impair cognitive functions. Additionally, environmental factors such as overcrowded living conditions, limited access to quality education, and insufficient healthcare resources can hinder cognitive development and exacerbate difficulties in thinking or concentrating.

- 4. Suicidal thoughts: Suicidal thoughts, also known as suicidal ideation, refer to thinking about or formulating plans for suicide. The ideation exists on a spectrum of intensity, beginning with a general desire to die that lacks any concrete method, plan, intention, or action and progressing to active suicidal ideation, which involves a detailed plan and a determined intent to act on the ideas [32]. Suicide has been listed as the 2nd leading cause of death among people aged 15-29 years in Africa [33]. In Nigeria, a study reported a prevalence rate of 20% for suicide ideation and 12% of self-harm among young people [34]. Specifically, Adewuya, Ola, Coker, Atilola, Zachariah, Olugbile & Idiris [35] found the prevalence in Imo State to be 8.1%. Its influencing factors include depression, anxiety, low self-esteem and lack of social support [36, 37]. This psychopathological symptom can be a manifestation of various mental health conditions such as depression, anxiety disorders, bipolar disorder, and post-traumatic stress disorder (PTSD). The cultural, socioeconomic, and environmental context in Amudo community of south-East Nigeria plays a significant role in the manifestation, reporting, and management of suicidal thoughts. Traditional and religious views often stigmatize suicide, considering it a moral failing or spiritual problem rather than a psychological issue. This stigma can prevent individuals from seeking help, leading to underreporting and untreated mental health conditions.
- 5. **Psychological distress:** According to Brune [3], he defines as "undifferentiated group of symptoms ranging from anxiety and depression symptoms to functional impairment, personality traits (confusing, troubling), and behavioral problems. It is a state of emotional suffering that is also characterized by somatic symptoms. Psychological distress is also considered as a transient (not long-lasting) phenomenon that is associated with specific stressors and characterized by disturbances in sleep, fluctuations with the eating pattern, headache, constipation, diarrhea, chronic pain, provoked to anger frequently, excessive tiredness, forgetfulness and memory problems, and no longer finding pleasure in sex. It typically diminishes/vanishes when either the individual adapts to the stressor, or the stressor is removed. The prevalence of psychological distress can vary widely depending on numerous factors including socioeconomic status, cultural background, and access to mental health services. In many communities, high levels of psychological distress are associated with increased rates of mental health disorders, substance abuse, and chronic physical conditions [39].
- 6. Sleep disturbances: Sleep is required for optimal functioning; it plays a critical role in various bodily functions, influencing physical health, mental health, cognitive performance, and overall quality of life. Sleep disturbances encompass Disorders of Initiating and Maintaining Sleep (DIMS or insomnias), Disorders of Excessive Somnolence (DOES or hypersomnia), disorders of sleep–wake schedule, and dysfunctions associated with sleep, sleep stages, or partial arousals (parasomnia) [40]. Sleep disturbances as a psychopathological symptom refer to disruptions in the normal sleep pattern that are indicative of underlying mental health issues. They are often associated with conditions such as anxiety disorders, depression, bipolar disorder, post-traumatic stress disorder (PTSD), and psychotic disorders. They can exacerbate existing mental health symptoms and impair overall functioning and well-being. The co-occurrence of sleep disorder and psychological disorder was found to be about seven out of every 10 patients presenting to the Family Medicine Clinic of (Obafemi Awolowo University Teaching Hospital (OAUTH), Ile-Ife who had sleep disorders. Another study

found that overall, the commonest sleep problem was insomnia, with a prevalence of 27.3% and that one fifth of the study population had a high risk of obstructive sleep apnoea [41]. The overall prevalence of symptoms of sleep disorders in the psychiatric outpatient sample was 40.75%. The prevalence for symptoms of narcolepsy, sleep breathing disorder, PLMS/RLS, circadian rhythm disorder and parasomnia were 12.5%, 14.5%, 14.8%, 4.5%, and 13.8% respectively [42]. These evidence points to the influence and relationship of sleep disorders as a psychopathological symptom.

- 7. Anhedonia: The ability to experience pleasure is essential for psychological wellbeing, but is often reduced in mental illness. While anhedonia scores were significantly increased in current psychopathologies but not remitted to Major Depressive Disorders (MDD), schizophrenia, Substance Use Disorder, Paranoid disorder, and chronic pain compared with healthy participants, evidence was found for substantially higher anhedonia in ongoing MDD compared with other types of illness [43]. When translated verbatim, anhedonia means "without pleasure." The symptom of anhedonia is associated with feelings of decreased capacity to experience pleasure, particularly when compared to similar experiences that were perceived as pleasurable in the past. Anhedonia is a transdiagnostic symptom comprising reduced subjective reward or pleasure. It is a graduated symptom; individuals, regardless of their mental health, have varying degrees of hedonic tone that can be described and quantified [44]. It is a common symptom of several psychiatric disorders, including schizophrenia, substance dependence, posttraumatic stress disorder, anxiety disorders, eating disorders, autism and neurodegenerative disorders. A study reported that the most common depressive symptoms among depressed patients in Nigeria were anhedonia 9.1%, suicidal ideation 7.3%, and hopelessness 6.9% and 1.8% psychomotor retardation [45].
- 8. Functional impairment (trouble coping with daily life): Functional impairment is a defining feature of all mental disorders across the life span, including in older adulthood. It is a clinically significant impact on an individual's functioning in social, occupational, or other important domains of functioning. Functional impairment as а psychopathological symptom refers to difficulties in performing everyday activities and fulfilling social, occupational, or academic roles due to mental health issues. It involves limitations in areas such as work, school, relationships, self-care, and independent living skills. Functional impairment is a hallmark feature of many psychiatric disorders and is assessed based on the individual's ability to meet the demands of daily life compared to what is expected for someone of their age and background. It serves as a key criterion in diagnosing and evaluating the severity of mental health conditions. Low functional status is significantly associated with psychiatric diagnoses for several reasons, involving both direct and indirect pathways. The significant association between low functional status and psychiatric diagnoses is supported by a growing body of recent research. This relationship is bidirectional, with psychiatric disorders impairing daily functioning and low functional status contributing to the onset and exacerbation of psychiatric conditions [46, 47, 48, 49, and 50]. Understanding this interplay is crucial for developing effective interventions that address both mental health and functional capacity.
- **9. Ogbanje spirit:** This in itself is not as symptom but it is used to conceptualize a certain group of people who possess a syndrome or constellation of psychopathological symptoms, behavioural and interpersonal problems in the Igbo culture. The Igbos

believes that ogbanje results from subversion of human destiny by willful alliance of the newborn with deities who guard the postulated interface between birth and pre-birth (spirit). It is used to refer to people who are believed to cycle rapidly and repeatedly through birth and death. Surviving persons manifest abnormalities of psychological life with vivid fantasy of life or dreams characterized by the presence of water, orgiastic play with unfamiliar children, and frightening contact with a water goddess-mammy water. Labeled children and adolescents often exhibit manipulative, histrionic dissociative and other maladaptive behavior and they may also be gifted. Predominantly occurs in young females and the onset of psychological symptoms is at a mean age of 16 years. The most common psychiatric symptoms are visual hallucinations (67%), but aggressive/destructive behavior (33%), conversion/dissociation disorders (25%), and vivid dreams about water and play (25%) are also noted. The loss of control, unexplained symptoms (conversion), changes in conscious expression (dissociation), and dreams about water (Mammy Water) and play (with spiritual companions). Histrionic personality traits are reported in 42% and possible DSM-IV psychiatric diagnostic considerations here include bipolar disorder, conversion, and dissociative disorders as aftermath of such situations [38].

PSYCHOTHERAPEUTIC PROPHYLAXIS

Psychotherapeutic prophylaxis refers to the use of psychotherapy techniques and interventions to prevent the onset or worsening of mental health issues. This preventive approach aims to reduce the risk of psychological symptoms/problems before they fully develop or become more severe. It can involve various strategies, such as:

1. Cognitive-Behavioral Therapy (CBT)

CBT focuses on identifying and changing negative thought patterns and behaviors that contribute to psychopathological symptoms. Techniques include: cognitive restructuring, to help individuals recognize and reframe irrational or negative thoughts that lead to the psychopathological symptoms, behavioural activation, encouraging engagement in activities that promote positive emotions and reduce stress, and stress management, teaching techniques to manage stress, such as time management, problem-solving skills, and relaxation exercises. The effectiveness of CBT in treating psychopathological symptoms has been reported by [51, 52, 53].

2. Mindfulness-Based Stress Reduction (MBSR):

MBSR is the first therapy utilizing mindfulness as part of the therapy. It was initially developed to help patients with chronic pain in medicine settings. Mindfulness does not change cognition as CBT does. Rather it changes the attitude and relationship towards thoughts and feelings [54]. Mindfulness therapy is a standardized psychological intervention that aims to reduce stress, encourage mindful thinking habits, and allow recipients to manage difficult emotional processing. It focuses on the concentration of one's attention in the moment, nonsubjective judgment, and openness to accepting personal experience and involves corresponding behavioral training, such as attention training, body scanning, and sitting meditation [55]. They also found that MBSR therapy appears to be potentially useful in relieving functional emotional disorders such as depression, anxiety and perceived stress [54]. It also relieves depression, chronic pain, anxiety disorders, addiction, and trauma and posttraumatic stress disorders.

3. Interpersonal Therapy (IPT)

IPT focuses on improving interpersonal relationships and communication skills, which can help

reduce psychopathological symptoms such as stress, fatigue and irritability that arises from conflicts or misunderstandings in social interactions. Techniques include: Role-playing; Practicing new ways of interacting in challenging situations. Communication Training: Learning effective communication strategies to express needs and emotions constructively.

4. Dialectical Behavior Therapy (DBT)

DBT rests on a foundation of dialectical philosophy, whereby therapists strive to continually balance and synthesize acceptance and change-oriented strategies. DBT, which combines cognitive-behavioral techniques with mindfulness practices, can be useful in managing some psychopathological symptoms by promoting emotional regulation and distress tolerance. The therapeutic benefits of DBT are supported by empirical evidence and research which support its effectiveness in reducing self-injurious behaviors, self-harm attempts, suicidal thoughts, as well as behaviors associated with depression or bulimia nervosa [56, 57].

5. Psycho Education

Providing education about the nature of psychopathological severity, their triggers, and impact it will have in individual, can empower individuals to take proactive steps in managing their symptoms. Psycho education can include: Understanding their psychopathological symptoms: Learning about the psychological and physiological aspects of their symptoms, Identifying triggers: Recognizing personal triggers and early warning signs of symptoms and developing coping strategies.

6. Lifestyle Interventions

Promoting healthy lifestyle habits can significantly impact the management of psychopathological symptoms. Key areas of focus include: physical activity; encouraging regular, moderate exercise to improve energy levels and overall health, nutrition: advising on a balanced diet rich in nutrients to support physical and mental well-being and sleep hygiene reinforcing the importance of a regular sleep schedule, creating a restful sleep environment, and avoiding stimulants before bedtime.

CONCLUSION

In conclusion, the narrative review of psychopathological symptoms in Igbo communities of South-East Nigeria underscores the complex interplay between culture, spirituality, and mental health. The understanding of mental health disorders in these communities often transcends conventional clinical perspectives, incorporating cultural and spiritual beliefs, such as the concept of the "ogbanje spirit." The "ogbanje" phenomenon, often viewed as a spiritual affliction rather than a purely medical condition, reveals the deep-rooted connection between traditional belief systems and the interpretation of recurring childhood illness, death, and even certain behavioral or emotional disorders.

Other psychopathological symptoms observed in Igbo communities, including depression, anxiety, schizophrenia, and substance use disorders, are often interpreted through cultural lenses. The stigma surrounding mental illness in these communities leads many to seek traditional healers or spiritual interventions, sometimes delaying or replacing biomedical treatment. This has implications for healthcare delivery and the development of culturally sensitive mental health interventions.

Thus, mental health care in Igbo communities requires an integrative approach that respects cultural beliefs while providing scientifically grounded treatments. By acknowledging both the

psychosocial and spiritual dimensions of mental health, interventions through psychotherapies can be designed to be more acceptable and effective within these cultural contexts. Moreover, education and destigmatization efforts are crucial in promoting awareness and encouraging timely intervention for mental health issues. Understanding the cultural context of psychopathological symptoms is key to improving mental health outcomes in Igbo communities.

Interest in Competition

The authors wish to declare that they have no competing interest.

The Contributions of the Author

All the authors made significant contribution to the article.

Acknowledgements

The authors wish to thank all individuals who in one way or the other provided materials for the write up of this narrative review.

REFERENCES

- 1. Emminghaus H. AllgemeinePsychopathologiezurEinführung in das Studium der Geistesstörungen. Leipzig: F.C.W. Vogel; (1878). 492. [Google Scholar].
- "Pathology." *Vocabulary.com.Dictionary*, Vocabulary.com,https://www.vocabulary.com/dictionary/pathology. Accessed 20 May. 2024.American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). https://doi.org/10.1176/appi.books.9780890425596.
- 3. Brüne, M. (2015). *Textbook of Evolutionary Psychiatry and Psychosomatic Medicine: The Origins of Psychopathology* (2nd ed.). Oxford University Press. Online edition published in 2016. DOI: 10.1093/med/9780198717942.001.0001 (Oxford Academic).
- 4. Butcher, J. N., & Hooley, J. M. (Eds.). (2018). APA handbook of psychopathology: *Psychopathology: Understanding, assessing, and treating adult mental disorders.* American Psychological Association. https://doi.org/10.1037/0000064-000.
- Smoller, J.W., Andreassen, O.A., Edenberg, H.J., Faraone, S.V., Glatt, S.J., Kendler, K.S. (2019). Psychiatric genetics and the structure of psychopathology. Mol Psychiatry. 24(3), 409-420. doi: 10.1038/s41380-017-0010-4.
- 6. Brainstorm Consortium. (2018). *Analysis of shared heritability in common disorders of the brain*. Science, 360(6395), eaap8757.
- Savitz, J., & Drevets, W. C. (2018). Neuroimaging and Functional Connectivity in Mood Disorders. *Biological Psychiatry*, 84(10), 822-833. doi: 10.1016/j.biopsych.2018.07.011.
- 8. Meyer, J. S., Quenzer, L. F., & Feldman, R. S. (2013). *Psychopharmacology: Drugs, the brain, and behavior* (2nd ed.). Sinauer Associates.

- 9. Teicher, M. H., & Samson, J. A. (2018). *Childhood maltreatment and psychopathology:* A review of the neurobiological and genetic evidence. Neuropsychopharmacology, 43(1), 110-126.
- 10. Beck, A. T., & Haigh, E. A. P. (2018). Advances in cognitive theory and therapy: The generic cognitive model. Annual Review of Clinical Psychology, 10, 1-24.
- 11. Gross, J. J. (2019). *Emotion regulation: Current status and future prospects*. Psychological Inquiry, 26(1), 1-26.
- 12. Reiss, F. (2018). Socioeconomic inequalities and mental health problems in children and adolescents: A systematic review. Social Science & Medicine, 232, 14-26.
- 13. McLaughlin, K. A., et al. (2019). *Family environments and the development of psychopathology*. Clinical Psychological Science, 7(4), 602-614.
- 14. Bhugra, D., & Bhui, K. (2018). Cross-cultural psychiatry: A practical guide. CRC Press.
- 15. Caspi, A., et al. (2020). *Gene-environment interactions in mental disorders*. World Psychiatry, 19(1), 83-94.
- 16. Klengel, T., & Binder, E. B. (2018). *Epigenetics of stress-related psychiatric disorders and gene* × *environment interactions*. Neuron, 86(6), 1343-1357.
- Barata, P. C., Holtzman, S., Cunningham, S., O'Connor, B. P., & Stewart, D. E. (2016). Building a Definition of Irritability From Academic Definitions and Lay Descriptions. *Emotion review : journal of the International Society for Research on Emotion*, 8(2), 164–172. https://doi.org/10.1177/1754073915576228.
- 18. United Nations Development Programme. (2022). *Nigeria Multidimensional Poverty Index* 2022. Retrieved from https://www.undp.org/nigeria/publications/nigeria-multidimensional-poverty-index-2022.
- Onigbogi, C. B., & Banerjee, S. (2019). Prevalence of Psychosocial Stress and Its Risk Factors among Health-care Workers in Nigeria: A Systematic Review and Meta-Analysis. *Nigerian medical journal : journal of the Nigeria Medical Association*, 60(5), 238–244. https://doi.org/10.4103/nmj.NMJ_67_19.
- Ojezele, M. O., Eduviere, A. T., Adedapo, E. A., & Wool, T. K. (2022). Mood Swing during Menstruation: Confounding Factors and Drug Use. *Ethiopian journal of health sciences*, 32(4), 681–688. https://doi.org/10.4314/ejhs.v32i4.3.

- Hirsch, E., Benda, M., Garvey, R. W., & Roy, A. K. (2023). Irritability. In J. L. Matson (Ed.), *Handbook of clinical child psychology: Integrating theory and research into practice* (pp. 191–215). Springer Nature Switzerland AG. https://doi.org/10.1007/978-3-031-24926-6_11.
- Sorcher, L.K., Goldstein, B.L., Finsaas, M.C., Carlson, G.A., Klein, D.N., Dougherty, L.R. (2022). Preschool Irritability Predicts Adolescent Psychopathology and Functional Impairment: A 12-Year Prospective Study. J Am Acad Child Adolesc Psychiatry.61 (4):554-564.e1. doi: 10.1016/j.jaac.2021.08.016.
- Evans SC, Burke JD, Roberts MC, Fite PJ, Lochman JE, de la Peña FR, Reed GM. (2017). Irritability in child and adolescent psychopathology: An integrative review for ICD-11. ClinPsychol Rev.53:29-45. doi: 10.1016/j.cpr.2017.01.004.
- Naim, R., Dombek, K., German, R. E., Haller, S. P., Kircanski, K., & Brotman, M. A. (2023). An exposure-based cognitive-behavioral therapy for youth with severe irritability: Feasibility and preliminary efficacy. *Journal of Clinical Child & Adolescent Psychology*. https://doi.org/10.1080/15374416.2023.2264385.
- 25. Boksem, M. A. S., & Tops, M. (2018). Mental fatigue: Costs and benefits. *Brain Research Reviews*, 59(1), 125-139. doi:10.1016/j.brainresrev.2018.05.001.
- 26. Van der Linden, D., Frese, M., & Meijman, T. F. (2019). Mental fatigue and the control of cognitive processes: Effects on perseveration and planning. *Acta Psychologica*, 113(1), 45-65.
- 27. Coppieters, I., & Lenoir, D. (2020). Chronic fatigue: Pathophysiology and treatment options. *Journal of Psychosomatic Research*, 128, 109893.
- Billones, R., Liwang, J.K., Butler, K., Graves, K., & Saligan, L.N. (2021). Dissecting the fatigue experience: A scoping review of fatigue definitions, dimensions, and measures in non-oncologic medical conditions. Brain, Behavior, & Immunity – Health. 15. https://doi.org/10.1016/j.bbih.2021.100266.
- 29. Njoku, M.G.C., Jason, L.A., Torres-Harding, S.R. (2007). The Prevalence of Chronic Fatigue Syndrome in Nigeria. *Journal of Health Psychology*. 12(3):461-474. doi:10.1177/1359105307076233.
- 30. Aghajani Mir M. (2023). Brain Fog: a Narrative Review of the Most Common Mysterious Cognitive Disorder in COVID-19. *Molecular neurobiology*, 10.1007/s12035-023-03715-y. Advance online publication. https://doi.org/10.1007/s12035-023-03715-y.

- 31. Harmer, B., Lee, S., Rizvi, A., & Saadabadi, A. (2024). Suicidal Ideation. In *StatPearls*. StatPearls Publishing.
- 32. World Health Organization (2014) Forty-eighth report of the WHO Expert Committee on specifications for pharmaceutical preparations. https://apps.who.int/iris/handle/10665/112733/.
- Omigbodun O, Dogra N, Esan O, Adedokun B (2008) Prevalence and correlates of suicidal behaviour among adolescents in southwest Nigeria. Int J Soc Psychiatry 54(1):34–46. https://doi.org/10.1177/0020764007078360.
- 34. Okechukwu, E.K., Oparaocha, E.T., Madukaku, C.U., &Nwaokoro, J.C. (2023). Prevalence and Pattern of Distribution of Mental Disorders in South East Nigeria. International Journal of Innovative Science and Research Technology. 8(10), 1546-1552.
- Adewuya, A. O., Ola, B. A., Coker, O. A., Atilola, O., Zachariah, M. P., Olugbile, O., & Idris, O. (2016). Prevalence and associated factors for suicidal ideation in the Lagos State Mental Health Survey, Nigeria. *BJPsych Open*, 2(6), 385–389. doi:10.1192/bjpo.bp.116.004333.
- 36. Kukoyi, O., Orok, E., Oluwafemi, F., Oni, O., Oluwadare, T., Ojo, T., Bamitale, T., Jaiyesimi, B., & Iyamu, D. (2023). Factors influencing suicidal ideation and self-harm among undergraduate students in a Nigerian private university. *Middle East Current Psychiatry*, 30(1), 1-10. https://doi.org/10.1186/s43045-022-00274-1
- Ilechukwu, S. (2007). Ogbanje/abiku and cultural conceptualizations of psychopathology in Nigeria. Mental Health, Religion and Culture. 10(3). 239 – 255. http://dx.doi.org/10.1080/13694670600621795.
- Drapeau, A., Marchand, A., & Beaulieu-Prévost, D. (2012). Epidemiology of psychological distress. In L. L'Abate (Ed.), *Mental illnesses-understanding*, *prediction, and control*. Intech Open. doi: 10.5772/30872.
- 39. René E Cormier (1990) Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Walker HK, Hall WD, Hurst JW, editors. Boston: Butterworths; 1990.
- 40. Adewole, O. (2017). Pattern of Sleep Disorders among Patients in a Nigerian Family Practice Population. Annals of Medical and Health Science Research. 7: 23-31.
- Hombali, A., Seow, E., Yuan, Q., Chang, S. H. S., Satghare, P., Kumar, S., Verma, S. K., Mok, Y. M., Chong, S. A., & Subramaniam, M. (2019). Prevalence and correlates of sleep disorder symptoms in psychiatric disorders. *Psychiatry research*, 279, 116–122. https://doi.org/10.1016/j.psychres.2018.07.009.

- 42. Trøstheim, M., Eikemo, M., Meir, R., Hansen, I., Paul, E., Kroll, S. L., Garland, E. L., & Leknes, S. (2020). Assessment of Anhedonia in Adults With and Without Mental Illness: A Systematic Review and Meta-analysis. *JAMA Network Open*, *3*(8), e2013233.
- 43. https://doi.org/10.1001/jamanetworkopen.2020.13233.
- 44. Ho, N., & Sommers, M. (2013). Anhedonia: A Concept Analysis. Archives of *Psychiatric Nursing*, 27(3), 121. https://doi.org/10.1016/j.apnu.2013.02.001.
- 45. Aborode, A. T., Corriero, A. C., Mehmood, Q., Nawaz, A., Aayush, Upadhyay, P., Badri, R., & Hasan, M. M. (2022). People living with mental disorder in Nigeria amidst COVID-19: Challenges, implications, and recommendations. *The International journal of health planning and management*, 37(3), 1191–1198. https://doi.org/10.1002/hpm.3394.
- 46. Klee, A., Stacy, M., & Khan, A. (2021). Impact of psychiatric disorders on functional status in chronic pain patients. *Pain Medicine*, 22(2), 319-330.
- 47. Lally, J., Ajnakina, O., Stubbs, B., Cullinane, M., & Murphy, K. C. (2020). Remission and recovery from first-episode psychosis in adults: Systematic review and metaanalysis of long-term outcome studies. *The British Journal of Psychiatry*, 216(3), 114-120.
- 48. Millan, M. J., Agid, Y., Brüne, M., Bullmore, E. T., Carter, C. S., Clayton, N. S., & Young, L. J. (2021). Cognitive dysfunction in psychiatric disorders: Characteristics, causes and the quest for improved therapy. *Nature Reviews Drug Discovery*, 11(2), 141-168.
- 49. Morris, M. C., Compas, B. E., & Garber, J. (2019). Relations among posttraumatic stress disorder, comorbid major depression, and HPA functioning in mothers and children: An integrative review. *Clinical Psychology Review*, 28(2), 208-223.
- 50. Schoenfeld, A. J., George, B. C., & Weaver, M. J. (2020). Economic factors and incidence of mental health disorders. *The Journal of Bone and Joint Surgery*, 102(5), e19.
- 51. Widnall, E., Price, A., Trompetter, H. *et al.* Routine Cognitive Behavioural Therapy for Anxiety and Depression is More Effective at Repairing Symptoms of Psychopathology than Enhancing Wellbeing. *CognTher Res* **44**, 28–39 (2020).
- 52. https://doi.org/10.1007/s10608-019-10041-y
- 53. Kothari, R., Barker, C., Pistrang, N., Rozental, M., Egan, S., Wade, T., Allcott-Watson, H., Andersson, G., Shafran. R. (2019). A randomised controlled trial of guided internet-based cognitive behavioural therapy for perfectionism: Effects on

psychopathology and transdiagnostic processes. Journal of Behavior Therapy and Experimental Psychiatry. 64(1), 113-122. https://doi.org/10.1016/j.jbtep.2019.03.007.

- 54. Brachel, V.R., HiHirschfeld, G. Berner, A., Willutzki, U., Teismann, T., Cwik, J. C., Velten, J., Schulte, D., Margraf, J. (2019). Long-Term Effectiveness of Cognitive Behavioral Therapy in Routine Outpatient Care: A 5- to 20-Year Follow-Up Study. *Psychother Psychosom.* 88 (4): 225–235. https://doi.org/10.1159/000500188.
- 55. Pratikta, A. C. (2020). Mindfulness: An effective technique for various psychological problems. *ProGCouns: Journal of Professionals in Guidance and Counseling*, *1*(1), 1-13.
- 56. Pan, Yuanqing, Li, Fusen, Liang, Haiqian, Shen, Xiping, Bing, Zhitong, Cheng, Liang, Dong, Yi, Effectiveness of Mindfulness-Based Stress Reduction on Mental Health and Psychological Quality of Life among University Students: A GRADE-Assessed Systematic Review, Evidence-Based Complementary and Alternative Medicine, 2024, 8872685, 30 pages, 2024. https://doi.org/10.1155/2024/8872685.
- 57. Barnicot K., Redknap C., Coath F., Hommel J., Couldrey L., Crawford M. (2022). Patient experiences of therapy for borderline personality disorder: Commonalities and differences between dialectical behaviour therapy and mentalization-based therapy and relation to outcomes. PsycholPsychother.95 (1):212–33.
- 58. Lakeman R, Crighton J. The Impact of Social Distancing on People with Borderline Personality Disorder: The Views of Dialectical Behavioural Therapists. Issues Ment Health Nurs. 2021;42(5):410–6