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Research Paper

Perception of childhood and adult mental health symptoms among mothers and adolescent twins in South-Western Nigeria

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ABSTRACT

Background: nternalizing symptoms are common among children and adolescents globally. Despite their high prevalence, there is limited research on how young people and their families interpret mental health symptoms in Low-/Middle-Income Countries. The present study explored how Nigerian adolescents and their mothers perceive mental health symptoms.

Methods: Twin children aged 10-18 years living in Ile-Ife and their mothers, were screened for symptoms of anxiety, depression, and emotional problems using standardized questionnaires. Fifteen mothers and ten adolescents with high levels of internalizing symptoms participated in five separate focus group discussions, three with mothers and two with adolescents, which were analyzed using inductive thematic analysis.

Results: Four themes emerged: (i) understanding of mental health, (ii) lived experiences of mental health, (iii) perceived causes of mental health difficulties, (iv) perceived differences in mental health difficulties in children and adults. Both mothers and adolescents recognized symptoms of emotional distress in children and impacts on academic performance and social life. Beliefs about causes included spiritual or supernatural explanations, hereditary influences, and social challenges. Mental health problems in adults were regarded as more severe and caused by multiple life stressors. Stigma was present in both groups but more among adolescents.

Conclusions: Mothers and adolescents demonstrated thoughtful and culturally influenced understandings of mental health problems in young people. These findings highlight the importance of mental health education tailored to accommodate local beliefs and adapted separately for adults and adolescents in low-resource settings.

1. Introduction

Mental health difficulties among children and adolescents are a major public health concern. This is reflected by the rising prevalence of internalizing disorders such as depression, anxiety, and other emotional difficulties (Racine et al., 2021). The World Health Organization (WHO) estimates that one in seven children aged 10–19 years lives with a mental health disorder, with internalizing problems among the most reported (World Health Organization, 2021). Globally, anxiety disorders affect 6-20% of children, while depressive symptoms affect 4-15% of school-aged populations (Rapee et al., 2023; Barendse et al., 2023). However, the true burden is likely underestimated due to underreporting (Solmi et al., 2022). As a result, many children experience emotional distress without recognition or support. These untreated symptoms may persist into adulthood and negatively affect health, educational, and social relationship outcomes (Copeland et al., 2015; Rutter et al., 2006; McLaughlin et al., 2019).

Internalizing symptoms and emotional difficulties affect children's emotional well-being and daily functioning. These symptoms are associated with low self-esteem and low levels of life satisfaction (Ogundele,

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2018); underdeveloped coping skills and resilience (Kieling et al., 2011), and somatic symptoms such as headaches, fatigue, and sleep difficulties (Barendse et al., 2023). In school settings, emotional difficulties are linked to poor concentration, low motivation, reduced engagement, and consequent poor performance (Owens et al., 2012; Kearney et al., 2023). Social impacts include withdrawing from peers and difficulties maintaining social relationships (Essau and de la Torre-Luque, 2021; Yeung et al., 2013).

The burden of child and adolescent mental health problems is more pronounced in Low- and Middle-Income Countries (LMICs) where children's mental health needs are often under-recognized and not adequately addressed (Cortina et al., 2012; Oginni et al., 2025). Risk factors observed among children and adolescents include poverty, family instability, exposure to violence, school stress, and limited access to mental health care (Mugisha et al., 2025). Despite the growing global attention on child and adolescent mental health, relatively little research from LMICs has examined how young people and caregivers perceive childhood mental health difficulties. This is significant because about 90% of the world's children and young people reside in LMICs (UNICEF Innocenti, 2022), yet only 10% of global research on child and adolescent mental health is conducted in these settings (Cortina et al., 2012). Within LMICs, sub-Saharan Africa is the least represented region in global child and adolescent mental health research (Kieling et al., 2011; Yu et al., 2023). This research gap means that as most child and adolescent mental health interventions in LMICs are adapted from high-income countries (HICs), they may lack cultural and contextual relevance for local populations (Colizzi et al., 2020).

Understanding community perceptions of mental health problems is crucial for developing and implementing culturally appropriate interventions. In Nigeria, up to 26% of in-school adolescents experience depressive symptoms while about 15% experience anxiety symptoms (Adewuya et al., 2007; Oke et al., 2025). Stigma, negative cultural beliefs of mental illness, and a severe shortage of child mental health specialists have been associated with treatment gaps (Abdulmalik et al., 2019; Oginni et al., 2025; Chijioke et al., 2024). As an example, a Nigerian study among adults reported high levels of stigmatizing attitudes towards people with mental health symptoms (Pederson et al., 2020). Similarly, research conducted in Malawi showed that nearly 90% of participants preferred to seek care from traditional healers, despite the availability of hospital-based mental health services (Kokota et al., 2023). Such preferences reflect deeply rooted cultural beliefs about the causes of mental illness, including supernatural or spiritual beliefs (Berhe et al., 2024).

High levels of stigma may make individuals with mental health symptoms and their caregivers reluctant to seek orthodox or hospital-based support (Al-Hashemi et al., 2025). Early life is a critical developmental period for the onset of many mental health disorders, approximately 50–75% of adult mental health disorders begin before the age of 18 years (Solmi et al., 2022). This developmental period provides an important window of opportunity for intervention to prevent the persistence of symptoms into adulthood. However, effective early intervention requires the early recognition of emotional symptoms and help-seeking by parents and young people which can be impacted by stigma which delays help-seeking and access to early intervention (Villatoro et al., 2018).

The present study was conducted in Nigeria, the most populous country in Africa. We focused on internalizing (i.e., depressive and anxiety) symptoms due to their high prevalence among young people (Mkhize et al., 2024). In the present study, we explored how Nigerian adolescents and their mothers perceive mental health difficulties in young people and adults to gain deeper insights into their experiences, beliefs, and understanding of these problems.

2. Methods

Fifty mothers of twins and their twin children (50 twin pairs) aged 10-18 years residing in Ile-Ife were identified from an existing twin register in Osun State (Oginni et al., 2024). We focused on twin adolescents and their mothers in the present study as part of a larger twin study that explored genetic and environmental influences on child and adolescent mental health problems in Nigeria (Oginni et al., 2024, 2025). The participants were screened for internalizing symptoms: mothers were assessed for anxiety and depressive symptoms, while adolescents were assessed for emotional symptoms. The screening process is described below.

2.1. Screening questionnaires

For mothers:

2.1.1. Social demographic section

Age (in years) was assessed using a single question. Ethnic group was assessed using a single question with options including "Yoruba", "Igbo", "Hausa", and "Others". Socioeconomic status was assessed using single questions about the mothers' highest level of education (with options scored from 1 [No qualification] to 8 [Higher degree or Postgraduate qualification]) and employment status (rated Yes or No).

2.1.2. Anxiety symptoms

The Generalized Anxiety Disorder Questionnaire-7 (GAD-7) was used to assess anxiety symptoms over the past 2 weeks (Spitzer et al., 2006). Items were each rated on a 4-point Likert scale ranging from 0 (Not at all) to 3 (Nearly every day). Item scores were summed to obtain a total score, with higher scores indicating higher or more severe generalized anxiety symptoms. The Cronbach's alpha in the present study was 0.64.

2.1.3. Depressive symptoms

The Patient Health Questionnaire-9 (PHQ-9) was used to assess depressive symptoms over the past two weeks (Kroenke et al., 2001). The nine items were rated on a 4-point Likert scale ranging from 0 (Not at all) to 3 (Nearly every day). Responses were summed up to generate a total score, with higher scores indicating higher depressive symptoms. The Cronbach's alpha in the present study was 0.73.

2.1.4. For adolescents

2.1.4.1. Sociodemographic section. Age (in years) was assessed using a single-item question. Educational status ranged from kindergarten to senior secondary school. Zygosity was assessed using maternal reports (Oginni et al., 2025).

2.1.4.2. Emotional symptoms. Emotional problems over the previous six months were assessed using four items from the Emotional Problems subscale of the 25-item Strengths and Difficulties Questionnaire (Goodman, 1997). Each item was rated on a 3-point scale ranging from 0 (Not true) to 2 (Certainly true). The item scores were summed, with higher scores indicating higher emotional problems. The Cronbach's alpha for this subscale in the present study was 0.47 consistent with previous reports (e.g., Akpa et al., 2016; Hoosen et al., 2018).

All questionnaires were translated into Yoruba for mothers and children who did not understand English by a bilingual translator and independently back-translated into English by another bilingual translator who was blinded to the original versions.

2.2. Focus group discussions

After screening, 17 mothers with high levels of anxiety and depressive symptoms, and 15 individual twin adolescents with high levels of emotional symptoms were selected for Focus Group Discussions (FGDs). The selected participants were invited via phone and text messages; of

whom 2 mothers and 5 adolescents who were eligible did not wish to participate. Altogether, there were five in-person focus groups, each comprising five participants. This group size was chosen to facilitate active participation in the in-person FGD and to allow all participants to share their perspectives. Of these, three groups comprised only mothers, and the other two groups comprised adolescents.

Using a topic guide (see Appendix), participants were asked open-ended questions about their perspectives on symptoms of mental illness, including internalizing and general mental health symptoms based on their lived experience. Participants were also asked about their beliefs regarding these symptoms and perceived impacts on functioning in children, their perspectives on seeking intervention, and perceived differences between mental health difficulties in adults and young people. Participants' nonverbal expressions and other relevant cues were documented. Audio recordings were transcribed verbatim and translated from Yoruba into English before thematic analysis was carried out.

2.3. Ethical Approval

Ethical approval for the study was obtained from the Ethics and Review Committee of the Obafemi Awolowo University Teaching Hospitals Complex (Protocol Number: ERC/2024/01/01). Written informed consent was obtained from all adult participants, and assent and parental consent were obtained for adolescent participants.

2.4. Data Analysis

All audio recordings from the focus group discussions were transcribed verbatim from Yoruba to English for analyses using the back-translation approach; the transcripts were reviewed multiple times to understand the data and participants' perspectives. The translated transcripts were imported into NVivo for data management and coding. Data was analyzed using an inductive approach (Braun & Clarke, 2006). This coding process was iterative and modified to ensure that all relevant details were captured.

Related codes were then organized into themes by clustering related codes together. Themes were defined as coherent patterns of meaning that captured essential aspects of data pertinent to the research questions. These themes were reviewed and refined to ensure internal consistency, distinctiveness, and alignment with the original data. Each final theme was clearly defined and named to reflect its central or collective meaning, with attention paid to its scope and boundaries.

The final themes were synthesized into a coherent narrative and supported with illustrative quotes from participants. The analyses emphasized the relevance of these themes to the research objectives and highlighted the implications of the findings.

3. Results

3.1. Demographics

Mothers had a mean age of 46.5 years (SD=5.86, Table 1), while adolescents had a mean age of 15.3 years (SD=2.33). Fifty-one percent of the adolescents in the FGDs were male. Most mothers had attained secondary education (46.0%), followed by tertiary (34.0%). Majority of adolescents had secondary education (78.0%).

The mean PHQ-9 and GAD-7 scores for mothers were 4.4 (SD=4.79) and 9.6 (SD=4.74), respectively, with higher scores among FGD respondents (for PHQ-9, Mean=7.9 and SD=6.19; for GAD-7: Mean=14.2, SD=4.18). The mean adolescents' emotional symptoms score was 2.1 (SD=1.93), with a higher mean score among FGD participants (5.3, SD = 1.06).

3.2. Themes

The findings from our analyses of both mothers' and adolescents' FGDs revealed four main themes namely (Table 2): (i) Understandings of mental health; (ii) Lived experiences and observations of mental health; (iii) Perceived causes of mental health difficulties; and (iv) Differences in mental health difficulties between children and adults. These themes are highlighted in the following subsections.

Table 1
Socio-demographic information of participants.

	Mothers (Total) n (%)	Mothers (FGD) n (%)	Adolescents (Total) n (%)	Adolescents (FGD) n (%)
n	50 (100.0)	15 (100.0)	100 (100.0)	10 (100.0)
Age in years ($\bar{x}$ and SD)	46.5 (5.86)	47.1 (7.40)	15.3 (2.33)	14.1 (2.38)
Sex				
Female	50 (100.0)	15 (100.0)	49 (49.0)	6 (60.0)
Male	0 (0.0)	0 (0.0)	51 (51.0)	4 (40.0)
Highest level of education				
Primary	10 (20.0)	4 (26.7)	4 (4.0)	2 (20.0)
Secondary	23 (46.0)	8 (53.3)	78 (78.0)	8 (80.0)
Tertiary	17 (34.0)	3 (20.0)	18 (18.0)	0 (0.0)
PHQ-9 score ($\bar{x}$ and SD)	4.4 (4.79)	7.9 (6.19)	-	-
GAD-7 score ($\bar{x}$ and SD)	9.6 (4.74)	14.2 (4.18)	-	-
SDQ (Emotional subscale) score ($\bar{x}$ and SD)	-	-	2.1 (1.93)	5.3 (1.06)

$\bar{x}$=mean; SD=Standard deviation; FGD=Focus group discussion.

Theme 1: Understanding of mental health

Both mothers and adolescents associated mental health difficulties with behaviors they felt were irrational or socially inappropriate. Some mothers in our FGD described mentally unwell individuals as people who had lost control of their thoughts or behavior. For example, one mother described it as:

> *"A person who does not know what he is doing anymore"*
>
> *Participant 3, Mother FGD 2*

In the adolescent group, mental health was often described based on changes in individual appearance, attitudes and behaviors:

> *"There is one in our area, even through his appearance, you will know he is running mad. When they are talking to him, the man will start saying another thing entirely. Sometimes, he will take off his clothes and start jumping. His head is very bushy and he is always busy packing rubbish beside the road into his bag."*
>
> *Participant 03, Adolescent FGD 1*

Adolescents also described mental health difficulties as a gradual process involving changes in behavior over time and some recognized that these changes may reflect an underlying brain dysfunction:

> *"The first thing that comes to my mind is that the person is running mad. Not that the person has run mad, but gradually. I think it means the person has a brain disorder."*
>
> *Participant 3, Adolescent FGD 1*

In addition to these, both mothers and adolescents also identified a range of physical and emotional symptoms which they associated with poor mental health. For example, mothers commonly described "worry", "panic attacks", and physical symptoms like poor sleep, weight loss, headaches, and chest pain as symptoms of poor mental health.

> *"I have another friend that is usually sad, she doesn't relate with anyone. Throughout the day, she might not say a word. During break, she will put her head on the table, if I go to her, she will tell me to leave. She can keep mute for two days."*

Table 2
Summary of results.

	Themes	Mothers	Adolescents	Comments
1.	Understandings of mental health	Symptoms • Irrational behavior, disorganized speech • Anxiety, sleep disturbance, 'thinking' Triggers • Stressful experiences e.g., bereavement, financial strain, severe injury	Symptoms • Erratic behavior Attitudes • Stigma	Both mothers and adolescents recognized disorganized behavior as general symptoms of mental health difficulties in adults Adolescents reported stigma around mental illness; and adverse impacts on social and academic functioning
2.	Lived experiences of mental health	Symptoms • Social withdrawal, excessive worry, fearfulness, difficulty regulating emotions	[a]Symptoms • Low mood, being scared • Disorder of the brain Impacts • Poor academic performance, school avoidance, substance use, social isolation-	• Both mothers and adolescents recognized disorganized behavior and internalizing symptoms as indicative of mental health difficulties, and the roles of stressful life experiences as triggers
3.	Perceived causes of mental health difficulties	• Excessive discipline • Socioeconomic adversity in the family • Spiritual and supernatural influences • Hereditary factors	• Psychosocial influences • Spiritual and supernatural influences • Hereditary factors including genetics	• Both mothers and adolescents perceived spiritual/supernatural and hereditary factors as etiological influences. Mothers and adolescents perceived spiritual/supernatural factors were less relevant for children. Adolescents were able to describe genetic influences. In contrast, mothers combined heredity and spiritual/supernatural influences. • Beyond these, mothers perceived excessive discipline and stressful life events as etiological factor
4.	Perceived differences in mental health difficulties in children and adults	• Irritational behavior more likely as a symptoms in adults • Spiritual factors more important for adults • Continuity of mental health symptoms from childhood into adulthood	• More severe symptoms in adults • More precipitant in adults e.g., stressful life events, psychoactive substance use • Cumulative effects on multiple stressors	• Both mothers and adolescents described adults having more severe mental health symptoms • Adolescents thought adults experienced more stressful life events while mothers thought mental health symptoms could continue from childhood into adulthood

[a] This includes the young people's description of mental health difficulties in themselves.

Participant 03, Adolescent FGD 1

In both groups, but particularly among adolescents, participants expressed fear towards individuals experiencing mental health difficulties because they believed they could be unpredictable in their behaviors:

> *"I move away from such person because I think the person is mad or has psychological problems. I get scared because everyone knows people with mental disorders can bite or do any other thing."*
>
> *Participant 05, Adolescent FGD 2*

However, despite these fears, some adolescents also expressed empathy and curiosity towards individuals experiencing mental health difficulties:

> *"I have been with someone who has seizures, I tried to be friendly with him. I know it's crazy but when I hear someone has a mental disorder, I feel like I should know more about what is happening to them."*
>
> *Participant 01, Adolescent FGD 2*

Adolescents described how mental health symptoms manifest in adults, noting changes in behavior, appearance, and mood. They also highlighted the impact of stressful situations on mental health.

Theme 2: Lived experiences of mental health

Several mothers in our study described personal experiences of emotional distress and noted how this often led to emotional withdrawal, physical symptoms and an inability to carry out normal activities. One mother described her experience following a traumatic event (the death of her husband) this way:

> *"Ever since then if anything dropped, my head would swell up*[1]*, I would be scared. I used to have heart pain, back pain and my back used to sound as*

[1] This is a colloquialism describing a component of the startle response including piloerection, feeling cold and heightened awareness.

if it was my heart. I had sleepless nights for 3 months. I couldn't find sleep, I took sleeping pills and other things to make me sleep but I couldn't sleep still. I lost weight and people could not recognize me. That fear made me dull. Sometimes I couldn't respond to people. That fear caused headache and bleeding [menstruation] sometimes, it was too much. Many times, I cried to the point [that] someone was asking me that is there remedy to my ailment?

Participant 05, Mothers FGD3

The above narrative shows how distress was experienced emotionally and physically. Our study also showed how mothers' experiences of mental health difficulties were influenced by their children's behaviors. One mother described worrying over her child being socially withdrawn:

"My daughter…is thirteen years old. Sometimes she sits alone quietly, sometimes she goes to sleep and talks to no one. I always call her to ask: What are you thinking? She will just be mute and this has been her usual habit. Recently, she opened up to me and she said she was thinking about her future. 'At what age?' was my question. Which future are you thinking about?"

Participant 01, Mothers FGD 2

Another mother also described considering getting herbal remedies for their son because she was stressed over how fearful he was:

"[There is] the one who is always afraid and thinks a lot. It worries me and gives me stress. I want to give him an herbal mixture.

Participant 03, Mothers FGD 1

For adolescents in our study, their experiences of mental health were often influenced by their social environment, family dynamics or experiences of bereavement. For example, one adolescent described how school examination periods were often a source of distress for him:

"Whenever exams are approaching, I become restless and worried, and this sometimes gives me stomach pain"

Participant 04, Adolescent FGD 1

Some other adolescents also described the impact of parental relationships on their moods with one adolescent describing how his mood often changed depending on

"*…whether mummy and daddy are happy or fighting with each other*"

Participant 06, Adolescent FGD 2

With respect to bereavement, the source of distress emerged from cultural myths about death and the pain of losing a loved one. One participant described feeling prolonged sadness following the death of a family member, and anxiety that the deceased might return in spirit form:

"I was sad for a long time when my grandfather died and I also get scared that he [dead grandfather] might come to me, so I couldn't sleep."

Participant 01, Adolescent FGD 1

The above narrative illustrates how emotional distress can be shaped by loss and by spiritual or cultural interpretations of death.

Across both mothers' and adolescents' narratives, there were also differences in how the impacts of mental health were framed. Mothers often described the impacts of poor mental health on their bodies, stating how it affected their energy levels and sleep, while adolescents focused more on its impact on their academic performance and relationships with peers:

"If you're in the class and they are teaching you and you suddenly remember the things that are bothering you from home, you won't concentrate on what they are teaching you at school or even play with your friends."

Participant 06, Adolescent FGD 2

Theme 3: Perceived causes of mental health difficulties

The participants described a broad range of beliefs regarding the etiology of mental health difficulties. To present this diversity of perspectives clearly, this theme is divided into three sub-themes: (1) psychosocial, (2) spiritual and supernatural influences, and (3) perceptions of hereditary influences. Each sub-theme represents a distinct experience identified by the participants and is discussed in detail below.

a. ***Psychosocial***

Mothers identified significant life events as potential triggers for mental health difficulties. Many participants described pregnancy as a period where behavioral and emotional changes could occur. One participant recounted the experiences of a woman whose behavior changed dramatically during pregnancy but returned to normal following childbirth.

"Anytime she's pregnant, she would start chasing her husband everywhere in the community…we asked the husband of the well-being of his wife, he said…once she's pregnant, she would fight everyone in the house and after delivery, she will start behaving kind to everyone and even apologize."

Participant 03, Mothers FGD 1

Mothers also discussed the role of parental practices on children's mental health. Some participants talked about how excessive discipline such as frequent beatings and shouting could make children fearful, anxious or socially withdrawn. One mother reflected on it this way:

"Too much of beating can plant fear and dullness in our children. They won't be free to express themselves and can even have anxiety. They won't do well in class because of too much beating, it can affect their relationship with friends and mates, their reading and study lives will be affected too. For example, I used to beat my son a lot. The intelligent boy dropped from first position to a disobedient child. People advised me not to fight the child again but to guide, counsel, and advise with prayers. I yielded to this advice, and I'm seeing changes."

Participant 02, Mothers FGD 3

a. **Spiritual and supernatural influences**

Alongside psychosocial explanations, spiritual and supernatural beliefs occupied an important place in participants' understandings of mental health difficulties. Mothers and adolescents described mental illness as potentially arising from curses, spiritual attacks, punishment for wrongdoing, ancestral influences, or the malicious intentions of others. These beliefs reflected broader cultural understandings of mental illness. Some mothers explained mental illness as a consequence of personal or familial wrongdoing:

"It can be a consequence of one's own actions. It could be the consequences of ancestors' sins. There is a mad person I know, they said one out of every child in their family has to run mad."

Participant 05, Mothers FGD 1

Among adolescents, spiritual explanations often centered on curses or punishments resulting from disobedience or disrespect towards authority figures. Participants described mental illness as a possible consequence of violating social and moral expectations:

"If Pastor or herbalist curses someone, they can run mad. If you abuse an elderly person who has another thing[2]*, he can curse you."*

Participant 04, Adolescents FGD 1

[2] 'another thing' refers to an elderly person having supernatural powers.

Other adolescents, however, dismissed spiritual influences on mental health problems in children, arguing that behaviors like substance abuse and alcohol use are more probable causes:

"I don't believe in spiritual mental health problems. You drink alcohol, you smoke, etc. And they caution you, you don't listen. If you now run mad, you will say it is someone that is sitting somewhere shaking calabash for you to run mad?"

Participant 02, Adolescents FGD 1

Some other adolescents also questioned whether children could be affected by spiritual causes, suggesting that children were morally innocent and therefore unlikely to be cursed or punished in this way:

"I don't believe that spiritual attack[s] can cause a child to run mad. I don't know what kind of offence a child will commit to deserve such. He's still innocent"

Participant 03, Adolescents FGD 1

a. **Perceptions about hereditary influences**

Participants also discussed the possibility that mental health difficulties could run in families. Mothers frequently referred to heredity when explaining similarities in behaviours or illnesses across generations. One participant explained:

"Yorubas believe that if someone in the family has a mental illness, there is a tendency for others to have it in the future. They do ask these things before marriage; in some other families, it's convulsions."

Participant 03, Mothers FGD 1

Adolescents also recognized these influence and discussed how mental illness might be transmitted across generations. Some participants described these hereditary traits as complex and non-linear, suggesting that mental illness could skip generations:

"I believe someone can have mental problems as a result of genes inherited from parents. If the grandfather is mad and the son is not mad, the grandson can be mad. The gene can pass to the whole generation but that the parent is mad does not mean the child will be mad. A dumb person can give birth to someone who can speak."

Participant 05, Adolescents FGD 2

Some other adolescents, however, did not think mental illness could be inherited. Instead, they emphasized personal behaviours as determinants of mental health:

"Though, genetics come with some disorders, but not mental health. In ourselves we cause our mental problems, we cannot inherit mental problems from parents."

Participant 01, Adolescents FGD 1

Taken together, these findings show how participants drew on diverse understandings to make sense of mental health difficulties within their communities.

4. 4. Perceived differences in mental health difficulties in children and adults

Participants discussed whether mental health difficulties differ between children and adults. Mothers frequently attributed differences between child and adult mental health to differences in life experience and responsibility. Adults were viewed as being exposed to a wider range of stressors, including financial pressures, family responsibilities, and difficult life events, which increased their risk of developing mental health difficulties. One mother explained:

"There may be a difference. As an adult, you have experiences that can make you think. A child has not seen much."

Participant 01, Mothers FGD 2

Similarly, adolescents often described adults as carrying a greater emotional burden than children. They associated adulthood with excessive worrying and being preoccupied by responsibilities:

"I think that there is a difference because what the mother is thinking is more than what the child is thinking."

Participant 04, Adolescents FGD 2

Participants also distinguished between the types of mental health difficulties experienced by adults and children. Adolescents particularly associated severe mental illnesses with adulthood, believing that these were often compounded by behaviours such as alcohol consumption and substance use. One adolescent explained:

"Adults smoke and take alcohol but a child only thinks and there is a reason why the child is thinking. Even if a child is thinking, he can't run mad."

Participant 02, Adolescents FGD 1

However, there was also the consideration that the adult brain may be more resilient and less impacted by these triggers:

"I don't think it [alcohol and other substance use] can affect them [adults]. The adult's brain is different from a child's brain and they know how to control themselves, the drug and every other thing they can use; but for children, it can be more dangerous."

Participant 02, Adolescents FGD 1

Despite these distinctions, not all participants believed that child and adult mental health difficulties were fundamentally different. Some mothers argued that mental health problems could persist across the life course and that difficulties experienced during childhood could continue into adulthood if left untreated. One participant explained:

"There is no difference because diseases [mental health] not treated will grow with children to their old age and sometimes there might be a remnant of such disease after treatment."

Participant 05, Mothers FGD 3

5. Discussion

The present study explored the perceptions of childhood and adolescent mental health symptoms, etiological beliefs, and stigma among mothers and adolescents in Nigeria. We identified four themes: (1) perception of internalizing and other mental health symptoms in oneself or others; (2) mental health difficulties and internalizing symptoms in children; (3) perceived etiological influences on children's mental health difficulties, and (4) perceived differences in mental health difficulties in adolescents and adults.

Theme 1. Understanding of mental health

Mothers, in the present study, explicitly linked financial strain to internalizing symptoms, indicating an awareness of psychosocial determinants of mental health. This aligns with previous research whereby non-expert individuals in LMICs recognize the role of socioeconomic stressors in mental health difficulties (Pan et al., 2025). These findings highlight the importance of incorporating psychosocial stressors into mental health promotion messaging, such as providing increased support to contacts when they are experiencing stressful life events.

Adolescents in the present study demonstrated more stigmatizing attitudes towards severe mental health symptoms compared to their mothers. This was consistent with recent qualitative studies from African contexts in which mental health stigma among youth was explained by limited mental health literacy and cultural misconceptions (Nantumbwe et al., 2026; Ajayi et al., 2025). However, our finding contrasts with that in high-income countries, where younger generations report less mental health stigma even as they report higher

self-stigma. Such attitudes may negatively affect both help-seeking behavior and social inclusion. Comparatively, the lower stigma among mothers may reflect more life experiences including exposure to mental health conditions, which can reduce mental health stigma through increased understanding (Corrigan et al., 2020). Alternatively, the lower reported stigma among mothers may also reflect social desirability bias during focus group discussions. The contrast highlights the need for age-appropriate preventive interventions in Nigeria, of which stigma-reduction interventions may be especially useful among adolescents.

Theme 2. Lived experiences of mental health

Both mothers and adolescents recognized internalizing symptoms as indicators of mental health difficulties in young people. Adolescents further highlighted the impact of these symptoms on their academic functioning, which is consistent with existing evidence (Pedersen et al., 2019). This suggests that poor academic performance can be an important indicator of mental health difficulties among young people in LMICs like Nigeria. In our study, participants identified schools as important contexts where mental health problems may be observed. This supports existing evidence describing schools as potential settings for early identification and intervention (Yu et. al., 2023). However, inadequate training of teachers, lack of comprehensive mental health curricula (Baghian et al., 2023) and suboptimal school enrolment may limit the reach of school-based interventions in LMICs. These gaps may be addressed by integrating mental health literacy into school curricula and training key personnel, which can equip young people, educators and healthcare practitioners to recognize early warning signs and provide referral options.

Given the high level of religious affiliation in Nigeria, religious leaders may be well-positioned to act as allies in identifying and supporting youths struggling with mental health problems (Adewuya and Makanjuola, 2008). As trusted figures who are often consulted before, or instead of, formal mental health services (Perez et al., 2025), working with religious leaders can help counter some of the stigma-related barriers to recognition and mental health help-seeking discussed above. Such leaders can be trained to provide correct information and counseling, and facilitate access to appropriate services, particularly for out-of-school youth who may otherwise have limited contact with school-based mental health resources.

Theme 3. Perceived causes of mental health difficulties

Both mothers and adolescents acknowledged the familial nature of mental health difficulties which is consistent with evidence from genetic research (Andreassen et al., 2023); but gave different explanations for this observation. Mothers in the present study were more likely to endorse spiritual or supernatural explanations (Gureje et al., 2005), whereas adolescents were more likely to attribute mental health difficulties to hereditary or biological factors. Belief in supernatural causes is widely reported in LMICs and has been shown to influence help-seeking behaviors (Chibanda et al., 2020; Atilola, 2022). In many African contexts, mental illness is attributed to supernatural causes such as witchcraft, curses, or divine punishment (Ae-Ngibise et al., 2010). Consequently, mental health support is initially sought from traditional and spiritual healers while medical care is sought as a last resort (Atilola, 2022). This difference may reflect greater exposure of adolescents to formal education and health-related knowledge; it may also explain the differences in adolescents' perceptions of the etiology of mental health problems. These findings further highlight the need to tailor mental health messaging differently for adults and adolescents. Furthermore, the higher mental health stigma among adolescents despite greater awareness of biological influences suggests the need for a nuanced approach.

Mothers in the present study also linked children's emotional distress to socioeconomic hardship, (including poverty and family dysfunction) and adverse parenting styles, characterized by excessive discipline and lack of warmth. This is consistent with studies among Nigerian adolescents showing that social adversity is a risk factor for depression and anxiety (Dedeke et al., 2025); and research from other African and Asian countries showing that authoritarian and punitive parenting approaches can make children more vulnerable to anxiety, depression, and behavioural difficulties (Cluver et al., 2018). Together, these psychosocial stressors highlight the need for comprehensive, multisectoral intervention approaches that involve family, school and community resources.

In contrast, however, the adolescents in the present study were less likely to attribute mental health difficulties to parenting or socioeconomic factors. One possible explanation is that adolescent participants may be less willing to criticize parental figures, given the tradition of always showing elders respect (Esiaka and Luth, 2023). In line with this, the adolescents may also be less willing to blame their parents for socioeconomic adversity despite recognizing the links between this and mental health difficulties (e.g., second theme among mothers), and thus may not have acknowledged the impacts of socioeconomic adversity during focus group discussions.

Theme 4. Perceived differences in mental health difficulties in children and adults

Both mothers and adolescents perceived mental health symptoms in adults as more severe, particularly symptoms such as disorganized behavior associated with psychosis. This is consistent with empirical evidence showing that more severe psychiatric conditions often emerge in late adolescence and early adulthood (Solmi et al., 2022). Mothers also emphasized irrational behavior and spiritual factors in adult mental health problems, while adolescents highlighted multiple stressors, including life challenges and substance use, as contributors to adult mental health difficulties (O'Neill et al., 2023; Okafor et al., 2022). Mothers further suggested that mental health symptoms may persist from childhood into adulthood, which is supported by longitudinal research (Solmi et al., 2022; Copeland et al., 2015). Adolescents emphasized adults' greater exposure to stress and substance use. This view is consistent with evidence of a cumulative effect of chronic stress, adverse life events over time and with increasing age (Kendler et. al., 2000). Together, these perceptions demonstrate that both mothers and adolescents recognize the dynamic interplay between early vulnerability and later-life risk factors in shaping the chronicity of mental health difficulties.

6. Strengths and limitations

The present study has several strengths. First, the study addresses a significant gap in the literature by providing qualitative insights into the experience and perception of childhood and adolescent mental health difficulties which are under-researched in LMIC contexts. Second, the study provides a unique cross-generational perspective, allowing a comparison of youth and adult perceptions of internalizing and mental health symptoms including etiology and stigma. Third, the focus group discussions were conducted in the local language, which enabled participants to express their opinions in their own words using culturally based narratives, resulting in rich, contextually grounded data and contributing to the appropriateness and cultural legitimacy of the results. Lastly, the sample was selected to include participants with high levels of internalizing symptoms, thereby enhancing the validity of the information, as the perceptions expressed incorporated lived experiences.

Despite these strengths, the following limitations should be considered in interpreting our findings. Fathers and other caregivers were not included in the present study. Considering the highly gendered structure of Yoruba communities, with different roles for fathers and mothers in the family (Mensah, 2023; Ademiluka, 2024); fathers may have different and equally important perspectives about child and adolescent mental health problems (Sepahpour-Fard & Quayle, 2022). The study sample was recruited from an existing twin register in South-Western Nigeria,

which may not be generalizable to non-twin families and other ethnic groups in Nigeria. The focus group discussions may also increase the likelihood of social desirability bias, whereby participants adjust their responses to conform to perceived social norms or expectations, especially regarding stigma, parenting styles, and spiritual beliefs. The cross-sectional design captures perceptions at a single point in time, which can change over the life course or in response to interventions. Lastly, we did not explore other determinants of childhood and adolescent mental health. These include coping mechanisms, help-seeking behaviors and treatment experiences which can be further explored in future studies.

7. Conclusion

The present study investigated how mothers and adolescents in Nigeria understand and interpret adolescent mental health symptoms. Both adolescents and mothers acknowledged supernatural, hereditary and environmental influences; however, the explanations for these influences were nuanced across the older and younger generations (mothers and adolescents respectively). Adolescents were more likely to endorse biological mechanisms while mothers were more likely to endorse supernatural and socioeconomic factors. Importantly, our findings underscore the need for context-specific and age-appropriate public mental health messaging which takes into account the unique perspectives of each generation. Existing structures such as schools, families, and religious institutions, can be incorporated into the delivery of such interventions with the ultimate goal of facilitating the early recognition of child and adolescent mental health problems and timely help-seeking behaviors among those who need support. Overall, our findings contribute to a growing body of evidence highlighting the importance of culturally grounded approaches to mental health in LMIC settings. By centering both youth and their mothers' perspectives, we provide valuable insights that can inform more responsive, inclusive and effective mental health strategies in Nigeria and other LMIC contexts.

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CRediT authorship contribution statement

Kehinde Dorcas Ayodele: Conceptualization, Data curation, Methodology, Writing – original draft, Writing – review & editing. **Ayomide Oluseye:** Conceptualization, Data curation, Formal analysis, Methodology, Writing – review & editing. **Onyedikachi Joseph Opara:** Data curation, Writing – review & editing, Conceptualization. **Abimbola Olumayowa Onigbinde:** Writing – review & editing. **Helena M.S. Zavos:** Writing – review & editing, Funding acquisition, Conceptualization, Resources. **Olakunle Ayokunmi Oginni:** Conceptualization, Funding acquisition, Project administration, Resources, Writing – review & editing, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jadr.2026.101221.

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