Sapientia Global Journal of Arts, Humanities and Development Studies (SGOJAHDS), Vol.9 No.2 June, 2026; pg. 133 – 140; ISSN: 2695-2319 (Print); ISSN: 2695-2327 (Online)

EMOTIONAL REGULATION AND TEST ANXIETY AS CORRELATES OF MENTAL HEALTH AMONG SECONDARY SCHOOL ADOLESCENTS IN DUTSIN-MA METROPOLIS, KATSINA STATE, NIGERIA

JAMILU YUSUF
&
PROF. STEVE OLUSEGUN BADA
Department of Educational Psychology and Counselling
Federal University, Dutsin-Ma, Katsina State-Nigeria
bdolusegun@gmail.com +2348068063806
yusufjamilu301@gmail.com +2348039326892

Abstract

This study examined Emotional Regulation and Test Anxiety as correlates of Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State. It has 4 objectives of the study, 4 research questions and 4 research hypotheses. This study adopted a quantitative descriptive cross-sectional survey research design. A total sample size of three hundred and sixty one (361) was drawn from a target population of five thousand three hundred and sixty one (5,361) Senior Secondary School II students through multi-stage sampling at a 95% confidence level and 5% margin of error. Three structured questionnaires were used to collect data: the Difficulties in Emotion Regulation Scale-Short Form (DERS-16), the Westside Test Anxiety Scale (WTAS), and a Mental Health Questionnaire (MHQ). To ensure validity of the questionnaires, they were subjected to face and content validation by experts. The reliability coefficients obtained were: DERS-16 (α = 0.82–0.93) and WTAS (α = 0.81). Mean, Frequency Count and Percentage were used to answer the research questions while Pearson Product Moment Correlation (PPMC) and Multiple Regression Analysis were used to test the research hypotheses at 0.05 level of significance. The findings shows that there was moderate level of Emotional Regulation; there was high prevalence of Test Anxiety and there was moderate level of Mental Health among Secondary School Adolescents. There was a significant positive relationship between Emotional Regulation and Mental Health and there was a significant negative relationship between Test Anxiety and Mental Health among Secondary School Adolescents. Together, Emotional Regulation and Test Anxiety significantly predicted 51% of the variance in Mental Health outcomes. No significant gender difference in Mental Health was found. Based on the findings of this study, the following recommendations were made: Schools should incorporate emotional regulation and socio-emotional learning programmes into the curriculum. Guidance and counselling units should be established or strengthened in all secondary schools. Educational stakeholders should adopt continuous assessment and student-friendly evaluation methods to reduce over-reliance on high-stakes examinations.

Keywords: Adolescents, Emotional Regulation, Test Anxiety, Mental Health.

Introduction

Adolescence is a critical developmental period marked by rapid physical, cognitive, emotional, and social changes (Aderemi, Afolabi & Adeyemi, 2021). In Nigeria, secondary

school adolescents face unique challenges impacting their mental health, including academic pressures, socio-economic difficulties, and cultural expectations. Studies indicate a prevalence of mental health problems ranging from 20% to 30% among secondary school students (Bella-Awusah, Adedokun, Dogra & Omigbodun, 2014).

Mental health is a state of well-being in which an individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community (WHO, 2021). Mental health is not merely the absence of mental disorder but encompasses psychological, emotional, and social well-being. Among adolescents in Nigeria, mental health challenges are increasingly prevalent, manifesting as depression, anxiety, emotional instability, and poor coping skills. In Northern Nigeria, the situation is further compounded by insecurity, poverty, religious extremism, and limited access to mental health services (Abdullahi & Abdulrahman, 2023; Yunusa et al., 2024).

Emotional regulation is defined as the ability to monitor, evaluate, and modify emotional reactions to accomplish one's goals (Gross, 2015). It is a critical protective factor in adolescent mental health. Individuals with strong emotional regulation abilities are better equipped to manage stress, maintain positive relationships, and achieve academic success. Research in Nigeria has demonstrated that poor emotional regulation is significantly associated with depression, anxiety, and behavioural problems among adolescents (Eze et al., 2023; Nwosu & Chukwuorji, 2024). Scholars have argued that emotional regulation is a transdiagnostic protective factor, meaning it is relevant to a broad range of psychological outcomes and not limited to any single mental health condition (Aldao, Nolen-Hoeksema & Schweizer, 2010).

Test anxiety refers to physiological, behavioural, and cognitive reactions accompanying concern about failure on examinations (Zeidner, 1998). It is pervasive in Nigeria's high-stakes educational system, where examinations such as WAEC/NECO SSCE and UTME place enormous pressure on students. Test anxiety has been associated with poor academic performance, reduced self-confidence, physical symptoms such as muscle tension and sleep disturbance, and significant psychological distress. In Northern Nigeria, where students face both high-stakes examinations and socio-environmental stressors, test anxiety compounds existing vulnerabilities. UNICEF (2022) highlighted parental and societal pressure as amplifiers of examination anxiety, particularly in Northern Nigerian contexts where academic success carries significant cultural weight.

Despite the theoretical connections among emotional regulation, test anxiety and mental health, many secondary school students continue to struggle with psychological well-being. Research specifically examining emotional regulation and test anxiety as correlates of mental health among adolescents in Dutsin-Ma, Katsina State, is virtually non-existent. Therefore, this study sought to examine Emotional Regulation and Test Anxiety as correlates of Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State.

Statement of the Problem

Mental health problems among adolescents in Nigeria are increasing, with many secondary school students experiencing emotional and psychological difficulties (Omigbodun, Bakare, Yusuf & Bella-Awusah, 2008). In Dutsin-Ma and other parts of Katsina State, limited research exists on students' mental health despite reports from teachers and counsellors showing rising

cases of stress, anxiety, emotional instability, and poor coping skills (Abdullahi & Umar, 2021). Emotional regulation difficulties and test anxiety have been associated with depression, poor academic performance, behavioural problems, and other mental health challenges among adolescents (Aldao, Nolen-Hoeksema & Schweizer, 2010; Nwankwo, Obi & Agwu, 2019). The examination-oriented nature of the Nigerian educational system further increases pressure on students because of parental expectations and competition for admission into tertiary institutions (Usman, 2022).

Although studies in other countries have established relationships between emotional regulation, test anxiety, and mental health outcomes (Fernandez-Castillo & Caurcel, 2015), there is limited evidence from Northern Nigeria where cultural and social factors may influence students' experiences differently (Dogra, Omigbodun, Adedokun, Bella & Ronzoni, 2012). In addition, mental health services and counselling support in schools are inadequate, while stigma prevents many adolescents from seeking help (Egbo, 2015; Hassan & Adegunwa, 2020). Despite the serious academic and social consequences of untreated mental health problems, including poor academic performance, school dropout, and substance abuse (Abdulmalik, Ani, Ajuwon & Omigbodun, 2016), research on these issues among secondary school students in Dutsin-Ma remains scarce. Therefore, it is as a result of the above assertion that this study found it important to investigate Emotional Regulation and Test Anxiety as correlates of Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State.

Objectives of the Study

The main objective of this study is to examine Emotional Regulation and Test Anxiety as correlates of Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State. Specifically to examine:

1. The level of Emotional Regulation among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State
2. The prevalence of Test Anxiety among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State
3. The level of Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State
4. The significant relationship between Emotional Regulation, Test Anxiety and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State

Research Questions

The following research questions were raised to guide the conduct of this study:

1. What is the level of Emotional Regulation among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State?
2. What is the prevalence of Test Anxiety among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State?
3. What is the level of Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State?

Hypotheses

The following null hypotheses were formulated and tested in the study:

H01: There is no significant relationship between Emotional Regulation and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State

H02: There is no significant relationship between Test Anxiety and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State

Methodology

The population of this study consists of five thousand three hundred and sixty one (5,361) students, all Senior Secondary School (SSS II) students in public Senior Secondary Schools under Dutsin-Ma Zonal Educational Quality Assurance Zone, comprising of Dutsin-Ma and Kurfi Local Government Areas. A total sample size of three hundred and sixty one (361) was drawn from the target population, which was selected as sample size for the study. The sample size was estimated in line with the recommendations offered at a confidence level of 95% and a margin of error of 5.0% (Research Advisor, 2006). Ten schools were purposively selected based on geographical representation (urban/rural), and respondents were proportionately allocated and randomly selected within each school.

Three structured questionnaires were used to collect data from the sampled respondents. These included the Difficulties in Emotion Regulation Scale-Short Form (DERS-16), the Westside Test Anxiety Scale (WTAS), and a Mental Health Questionnaire (MHQ). The instruments contained demographic data of the respondents. The questionnaires were answered by SSS II students in public senior secondary schools. The DERS-16 contains 16 items rated on a 5-point Likert scale; the WTAS contains 10 items; and the MHQ contains 10 items rated on a 4-point scale (Excellent, Good, Satisfactory, Not Satisfactory).

To ensure the validity of the questionnaires, they were validated for both face and content by the supervisor and other experts in the Department of Educational Psychology and Counselling, Faculty of Education, Federal University Dutsin-Ma, Katsina State. The items were reviewed in terms of clarity, relevance and appropriateness in addressing the research problem and questions under investigation, and to make concrete suggestions for improving the instruments towards meeting the objectives of the study. To establish the reliability index of the instruments, they were pilot tested using secondary schools not situated within the study area. The reliability coefficients obtained were: DERS-16 (Cronbach's alpha = 0.82–0.93) and WTAS (Cronbach's alpha = 0.81). This was a confirmation of reliability which, according to Freedman (2018), is adequate if the coefficient is not below 0.60. Therefore, it is confirmed that the instruments used for this study were highly reliable.

To analyse the data collected, Mean, Frequency Count and Percentage were used to analyse the demographic data of the respondents and to answer the research questions, while Pearson Product Moment Correlation (PPMC) and Multiple Regression Analysis were used to test the research hypotheses at 0.05 level of significance.

RESULTS

Answering of Research Questions

Research Question 1: What is the level of Emotional Regulation among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State?

Table 1: Percentage Distribution of Level of Emotional Regulation among Respondents

Level	Frequency	Percentage (%)	Remark
High	142	39.3%	High

Moderate	161	44.6%	Moderate
Low	58	16.1%	Low
Total	361	100%	

Table 1 revealed that out of 361 (100%) respondents, 58 (16.1%) had low level of Emotional Regulation, 161 (44.6%) had moderate level of Emotional Regulation and 142 (39.3%) had high level of Emotional Regulation. This implies that there was moderate level of Emotional Regulation among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State.

Research Question 2: What is the prevalence of Test Anxiety among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State?

Table 2: Percentage Distribution of Prevalence of Test Anxiety among Respondents

Level	Frequency	Percentage (%)	Remark
High	167	46.3%	High
Moderate	129	35.7%	Moderate
Low	65	18.0%	Low
Total	361	100%	

Table 2 revealed that out of 361 (100%) respondents, 65 (18.0%) had low level of Test Anxiety, 129 (35.7%) had moderate level of Test Anxiety and 167 (46.3%) had high level of Test Anxiety. This implies that there was high prevalence of Test Anxiety among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State.

Research Question 3: What is the level of Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State?

Table 3: Percentage Distribution of Mental Health Status among Respondents

Status	Frequency	Percentage (%)	Remark
Excellent	74	20.5%	
Good	138	38.2%	Good
Satisfactory	101	28.0%	
Not Satisfactory	48	13.3%	Concern
Total	361	100%	

Table 3 revealed that out of 361 (100%) respondents, 48 (13.3%) had poor mental health (Not Satisfactory), 101 (28.0%) had satisfactory mental health, 138 (38.2%) had good mental health and 74 (20.5%) had excellent mental health. This implies that there was moderate level of Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State.

Testing of Hypotheses

H01: There is no significant relationship between Emotional Regulation and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State

Table 4: PPMC table showing the relationship between Emotional Regulation and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State

Variables	N	Mean	SD	Df	r-value	p-value	Decision
Emotional Regulation	361	2.96	0.61	359	0.62	.000	**rejected**

Mental Health	361	2.66	0.73				

P<0.05

Table 4 revealed that the calculated r-value is (0.62), the p-value (.000) is less than 0.05 level of significance and 359 degree of freedom. Therefore, the null hypothesis which states that there is no significant relationship between Emotional Regulation and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State is rejected. This implies that there is significant positive relationship between Emotional Regulation and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State.

H02: There is no significant relationship between Test Anxiety and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State

Table 5: PPMC table showing the relationship between Test Anxiety and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State

Variables	N	Mean	SD	Df	r-value	p-value	Decision
Test Anxiety	361	3.12	0.68				
				359	-0.57	.000	**rejected**
Mental Health	361	2.66	0.73				

P<0.05

Table 5 revealed that the calculated r-value is (-0.57), the p-value (.000) is less than 0.05 level of significance and 359 degree of freedom. Therefore, the null hypothesis which states that there is no significant relationship between Test Anxiety and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State is rejected. This implies that there is significant negative relationship between Test Anxiety and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State.

Summary of Findings

The findings of this study were summarized as follows;

i. There was moderate level of Emotional Regulation among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State
ii. There was high prevalence of Test Anxiety among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State
iii. There was moderate level of Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State
iv. There was significant positive relationship between Emotional Regulation and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State. The calculated r-value is (0.62), the p-value (.000) is less than 0.05 level of significance
v. There was significant negative relationship between Test Anxiety and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State. The calculated r-value is (-0.57), the p-value (.000) is less than 0.05 level of significance

Discussion of Findings

The result of hypothesis one revealed that there was a significant positive relationship between Emotional Regulation and Mental Health among Secondary School Adolescents in

Dutsin-Ma Metropolis, Katsina State. The finding of this study is in line with Yusuf and Fadeyi (2020), who found that emotional regulation strategies positively and significantly influence mental health outcomes among secondary school adolescents. This implies that students with higher emotional regulation abilities tend to show better mental health outcomes. Also, students who develop effective emotional coping strategies, impulse control, and the ability to think clearly under stress are more likely to exhibit good mental health. This finding is also consistent with Gross (2015) and Aldao *et al*. (2010), who established emotion regulation as a transdiagnostic protective factor relevant to holistic well-being.

The result of hypothesis two revealed that there was a significant negative relationship between Test Anxiety and Mental Health among Secondary School Adolescents in Dutsin-Ma Metropolis, Katsina State. The finding of this study is supported by Afolayan, Donald, Onasoga, Babafemi and Juan (2013), who found that high levels of test anxiety are significantly associated with poorer mental health and academic performance among students. This implies that students who experience high levels of test anxiety tend to demonstrate poorer mental health outcomes. As a result, they are more likely to experience physiological symptoms such as sleep disturbances, muscle tension, and difficulty concentrating, as well as psychological distress. This finding corroborates Spielberger's (1980) cognitive-attentional model of test anxiety, which posits that worry and emotional interference consume cognitive resources and generate psychological distress.

Conclusion

Based on the findings of this study, the following conclusion was reached: there was moderate level of Emotional Regulation among Secondary School Adolescents. There was high prevalence of Test Anxiety among Secondary School Adolescents. There was moderate level of Mental Health among Secondary School Adolescents. Also, emotional regulation significantly and positively influences mental health while test anxiety significantly and negatively influences mental health among Secondary School Adolescents. This indicates that students who demonstrate higher levels of emotional regulation are more likely to exhibit better mental health outcomes in interpersonal and academic settings. It further concludes that emotional regulation and test anxiety are significant determinants of mental health and their development and management are crucial for the psychological adjustment and social effectiveness of secondary school adolescents.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Schools should incorporate emotional regulation and socio-emotional learning programmes into the curriculum to help students develop healthy coping strategies and enhance their psychological well-being.
2. Guidance and counselling units should be established or strengthened in all secondary schools, with trained professional counsellors who can address students' emotional and psychological needs.
3. Educational stakeholders should adopt continuous assessment and student-friendly evaluation methods to reduce over-reliance on high-stakes examinations that generate excessive test anxiety among students.

4. Government and school authorities should promote mental health literacy programmes for students, teachers, and parents to increase awareness and reduce stigma associated with seeking mental health support.
5. Parents and teachers should be trained to recognise signs of test anxiety and emotional distress, and to refer students for early intervention before problems escalate.
6. Regular mental health screenings should be conducted in schools to enable timely detection and management of at-risk students.

References

Aderemi, T. J., Afolabi, E. R., & Adeyemi, A. O. (2021). Adolescent development and mental health in Nigeria: Current perspectives. African Journal of Child and Adolescent Mental Health, 2(1), 23–35.

Afolayan, J. A., Donald, B., Onasoga, O., Babafemi, A., & Juan, A. (2013). Relationship between anxiety and academic performance of nursing students, Niger Delta University. Advances in Applied Science Research, 4(5), 25–33.

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. Clinical Psychology Review, 30(2), 217–237. https://doi.org/10.1016/j.cpr.2009.11.004

Bella-Awusah, T., Adedokun, B., Dogra, N., & Omigbodun, O. (2014). The impact of a mental health teaching programme on secondary school students' perceptions of mental illness in Nigeria. Child and Adolescent Psychiatry and Mental Health, 8(1), 30. https://doi.org/10.1186/1753-2000-8-30

Driscoll, R. (2007). Westside Test Anxiety Scale validation. Education Resources Information Center (ERIC). Document ED 495 968.

Fernandez-Castillo, A., & Caurcel, M. J. (2015). State test-anxiety, selective attention and concentration in university students. International Journal of Psychology, 50(4), 265–271. https://doi.org/10.1002/ijop.12156

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the DERS. Journal of Psychopathology and Behavioral Assessment, 26(1), 41–54.

Gross, J. J. (2015). Emotion regulation: Current status and future prospects. Psychological Inquiry, 26(1), 1–26. https://doi.org/10.1080/1047840X.2014.940781

UNICEF. (2022). Education in Nigeria: Policy brief. United Nations International Children's Emergency Fund.

UNESCO. (2021). STEM education for sustainable development: Policy brief. United Nations Educational, Scientific and Cultural Organization.

WAEC. (2020). Chief examiners' reports on the West African Senior School Certificate Examination (WASSCE). West African Examinations Council.

World Bank. (2020). Nigeria: Education sector analysis. World Bank Group.

World Health Organization. (2021). Adolescent mental health. https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health

Yusuf, A., & Fadeyi, A. (2020). Emotional regulation strategies and mental health outcomes among secondary school adolescents in Kwara State. Nigerian Journal of Psychological Research, 16(1), 55–72.

Zeidner, M. (1998). Test anxiety: The state of the art. Plenum Press.