PREVALENCE AND PREDICTORS OF ANXIETY AMONG FINAL-YEAR SENIOR HIGH SCHOOL STUDENTS IN GHANA: A CROSS-SECTIONAL STUDY USING THE GENERALIZED ANXIETY DISORDER-7 (GAD-7) SCALE

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ABSTRACT

Background

Anxiety among adolescents has emerged as a significant public health concern worldwide and is increasingly recognised as a major contributor to poor educational outcomes and impaired psychosocial functioning. Final-year senior high school students are particularly vulnerable because they experience substantial academic demands, uncertainty regarding future educational opportunities, and social expectations that may adversely affect their mental well-being. In Ghana, students preparing for the West African Senior School Certificate Examination (WASSCE) encounter intense academic pressure because examination performance largely determines admission into tertiary institutions and influences future career prospects. Despite growing awareness of adolescent mental health challenges, empirical evidence examining anxiety among Ghanaian final-year students remains limited.

Objective

This study assessed the prevalence and severity of anxiety among final-year students, identified factors associated with anxiety, and examined coping strategies used by students to manage anxiety symptoms.

Methods

A quantitative cross-sectional survey design was employed among 701 final-year students at West Africa Senior High School in Accra, Ghana. Data were collected using a structured questionnaire consisting of demographic variables, anxiety-related factors, coping strategies, and the Generalized Anxiety Disorder-7 (GAD-7) scale. Statistical analyses were conducted using Stata version 13. Descriptive statistics, chi-square tests, correlation analyses, and multiple regression analyses were performed. Statistical significance was established at $p < 0.05$.

Results

Anxiety was highly prevalent among respondents. Minimal anxiety was reported by 31.38% of participants, while 34.38% experienced mild anxiety, 24.82% experienced moderate anxiety, and 9.42% experienced severe anxiety. Overall, 68.62% of students reported at least mild anxiety symptoms and 34.24% experienced moderate-to-severe anxiety. The mean GAD-7 score was 7.46 (SD = 5.01).

Family pressure, financial stress, and concentration difficulties emerged as significant predictors of anxiety. Commonly used coping strategies, including time management, religious coping, exercise, social support, and help-seeking behaviours, did not significantly predict reductions in anxiety symptoms.

Conclusions

Anxiety among final-year students is highly prevalent and multifactorial. This statement suggests that anxiety among final-year students is both widespread and influenced by a complex combination of academic, personal, social, financial, and psychological factors. School-based interventions should therefore address family expectations, financial stressors, and academic functioning difficulties rather than focusing exclusively on examination preparation. Strengthening school counselling services and introducing routine mental health screening may improve psychological outcomes among students.

Keywords: Anxiety; Adolescent Mental Health; GAD-7; Ghana; WASSCE; Psychosocial Stress.

1.0 INTRODUCTION

Adolescence represents a critical developmental stage characterised by substantial biological, psychological, social, and cognitive transitions. During this period, individuals undergo rapid emotional development while simultaneously facing increasing educational, social, and familial expectations. Although these transitions are considered a normal component of development, they may expose adolescents to significant psychological vulnerabilities, particularly anxiety disorders. Anxiety has become one of the most prevalent mental health concerns among adolescents globally and is increasingly recognised as a major public health issue because of its impact on educational attainment, emotional well-being, and long-term psychosocial functioning.

The World Health Organization (WHO) has consistently reported increasing rates of anxiety among adolescents worldwide. Anxiety disorders account for a substantial proportion of mental health conditions affecting individuals between the ages of 10 and 19 years. Anxiety during adolescence is associated with numerous adverse outcomes, including impaired concentration, reduced academic performance, social withdrawal, sleep disturbances, emotional dysregulation, and an increased risk of subsequent psychiatric disorders during adulthood.

Educational environments are recognised as important contributors to adolescent anxiety. Academic institutions are designed to promote intellectual development; however, they may also become significant sources of psychological stress. Students are often exposed to demanding curricula, competitive academic environments, examination pressures, and expectations from parents, teachers, and society. Such pressures may be particularly pronounced during transitional educational periods, including the final year of secondary education.

In Ghana, final-year senior high school students preparing for the West African Senior School Certificate Examination (WASSCE) occupy a particularly vulnerable position. The WASSCE is a high-stakes examination administered by the West African Examinations Council and serves as the principal gateway to tertiary education. Students' performance in this examination largely determines admission into universities, polytechnics, and other higher educational institutions. Consequently, examination performance carries substantial implications for future educational opportunities, career development, and socioeconomic mobility.

Academic achievement is often perceived within Ghanaian society as the primary route to upward social mobility. Families may invest considerable emotional, financial, and social resources into their children's education. Although such investments are generally intended to support students, they may inadvertently create additional psychological burdens. Students may internalise parental expectations and perceive poor academic performance as a personal failure or a source of family disappointment.

Beyond academic demands, students are also exposed to broader psychosocial challenges. Financial concerns regarding tertiary education, uncertainty about future employment opportunities, peer competition, and societal expectations may further intensify anxiety symptoms. These factors may interact in complex ways, producing substantial emotional distress among adolescents during a period already characterised by developmental vulnerability.

Research conducted internationally has consistently demonstrated high levels of anxiety among students preparing for high-stakes examinations. Deb, Strodl, and Sun (2015) reported elevated levels of academic stress among adolescents, while Putwain and Daly (2014) observed that examination anxiety negatively affects students' emotional well-being and educational outcomes. Similar findings have been reported in several African countries, suggesting that examination-related anxiety constitutes an important educational and public health concern.

Within Ghana, research examining adolescent anxiety remains relatively limited despite increasing recognition of mental health challenges among young people. Existing studies have primarily focused on examination stress, academic performance, or isolated psychosocial variables. Few studies have simultaneously examined the combined influence of academic, financial, familial, and psychosocial factors using validated screening instruments such as the Generalized Anxiety Disorder-7 (GAD-7) scale.

The GAD-7 is a brief, validated screening tool widely used to assess the severity of anxiety symptoms among adolescents and adults. Developed by Spitzer and colleagues in 2006, the instrument demonstrates excellent psychometric properties and has been validated across diverse cultural contexts. The scale measures anxiety symptoms experienced over the preceding two weeks and classifies symptom severity into minimal, mild, moderate, and severe categories.

The use of validated screening instruments is particularly important within educational settings because early identification of anxiety symptoms facilitates timely intervention. Untreated anxiety may have significant long-term consequences, including poor academic performance, reduced social functioning, diminished quality of life, and increased risk of depression and substance misuse.

Despite growing awareness of adolescent mental health issues, many Ghanaian schools continue to have limited psychological support systems. There is a shortage of trained school counsellors, mental health services are often under-resourced, and psychological distress may remain unrecognised because of persistent stigma surrounding mental health conditions. Consequently, students may rely heavily on informal coping mechanisms such as peer support, prayer, avoidance behaviours, or independent study practices, which may not adequately address underlying psychological difficulties.

Understanding anxiety among final-year students, therefore, has important implications for educational policy, school-based interventions, and adolescent mental health services. Identifying modifiable risk factors may assist educational stakeholders in developing targeted interventions capable of reducing psychological distress and improving students' academic experiences.

This study was conducted to assess anxiety levels among final-year students of West Africa Senior High School in Ghana using the GAD-7 scale. Specifically, the study sought to determine the prevalence of anxiety, identify factors contributing to anxiety, and examine coping strategies adopted by students.

The findings of this study may contribute to the growing body of literature on adolescent mental health within sub-Saharan Africa and provide evidence to support the development of school-based mental health interventions.

1.1 Study Objectives

The following objectives guided the study:

1. To assess the prevalence and severity of anxiety among final-year senior high school students using the GAD-7 scale.

2. To identify academic, financial, psychosocial, and environmental factors contributing to anxiety among students.
3. To examine coping strategies adopted by students and determine their relationship with anxiety levels.

2.0 METHODS

2.1 Study Design

This study employed a quantitative cross-sectional survey design. The cross-sectional approach was selected because it enabled the assessment of anxiety levels and associated factors at a single point in time among a large population of students.

A quantitative approach was considered appropriate because it facilitates statistical analysis, objective measurement of psychological symptoms, and examination of relationships between variables. Cross-sectional studies are also cost-effective and widely used in educational and mental health research.

2.2 Study Setting

The study was conducted at West Africa Senior High School, Accra, Ghana. The school is one of the prominent public senior high schools in the Greater Accra Region and offers diverse academic programmes, including General Science, General Arts, Business, Visual Arts, and Home Economics. Final-year students at the institution experience substantial academic demands because of preparations for the WASSCE examination.

2.3 Study Population

The target population comprised all final-year students enrolled at West Africa Senior High School during the 2026 academic year. A total of 701 students participated in the study.

3.0 RESULTS

3.1 Participant Characteristics

A total of 701 final-year students from West Africa Senior High School participated in this study. Respondents represented diverse demographic, educational, and residential backgrounds, providing a comprehensive overview of the characteristics of students preparing for the West African Senior School Certificate Examination (WASSCE).

The demographic variables assessed included sex, age category, programme of study, residential status, and intention to pursue tertiary education after completion of secondary school. These characteristics provide important contextual information for understanding the psychosocial environment within which anxiety is experienced among final-year students.

Table 1. Participant Characteristics of Respondents (N = 701)

Variable	Category	Frequency (n)	Percentage (%)
Sex	Male	216	30.81
	Female	485	69.19
	Total	**701**	**100.00**
Age Category (years)	13-16	105	14.98
	17-20	552	78.74
	21-24	44	6.28
	Total	**701**	**100.00**
Programme of Study	Business	49	6.99
	General Arts	199	28.39
	Science	150	21.40
	Visual Arts	155	22.11
	Economics	115	16.41
	Other	33	4.71

	Total	**701**	**100.00**
Residential Status	With parents/guardians	493	70.33
	School boarding	181	25.82
	Living with relatives	17	2.43
	Renting	5	0.71
	Other	5	0.71
	Total	**701**	**100.00**
Intention to Apply to University	Yes	582	83.02
	No	18	2.57
	Not sure	101	14.41
	Total	**701**	**100.00**

Female students constituted the majority of respondents (69.19%), while males represented 30.81%. Most participants (78.74%) were aged between 17 and 20 years, corresponding to the typical age range of final-year senior high school students in Ghana. Students were enrolled across multiple academic programmes, with General Arts (28.39%) representing the largest group, followed by Visual Arts (22.11%), Science (21.40%), and Economics (16.41%).

Most respondents (70.33%) lived with their parents or guardians, while one-quarter (25.82%) resided in school boarding facilities. Furthermore, a substantial majority of students (83.02%) reported intending to apply to university after completing their final examinations.

Overall, these findings describe a population undergoing substantial developmental, educational, and social transitions. Such transitions may increase vulnerability to emotional distress, particularly when combined with academic demands, financial concerns, and uncertainty regarding future educational opportunities.

3.2 Prevalence and Severity of Anxiety

The prevalence and severity of anxiety symptoms were assessed using the Generalized Anxiety Disorder 7-item (GAD-7) scale. Respondents were categorised into four anxiety severity levels according to established cut-off scores.

Table 2. Distribution of Anxiety Severity Among Students (N = 701)

Anxiety Level	Frequency (n)	Percentage (%)
Minimal	220	31.38
Mild	241	34.38
Moderate	174	24.82
Severe	66	9.42
Total	**701**	**100.00**

Approximately one-third of respondents (31.38%) experienced minimal anxiety, while 34.38% were classified as having mild anxiety. Furthermore, 24.82% exhibited moderate anxiety and 9.42% experienced severe anxiety. Overall, 68.62% of students reported at least mild anxiety symptoms, and 34.24% experienced moderate-to-severe anxiety, indicating a substantial psychological burden among final-year students.

The mean GAD-7 score was 7.46 (SD = 5.01), with scores ranging from 0 to 21. This average score falls within the mild anxiety category, suggesting that anxiety symptoms were common among respondents, although considerable variability existed between students.

The relatively large standard deviation indicates heterogeneity in anxiety experiences. While some students demonstrated minimal psychological distress, others experienced severe symptoms that may warrant professional intervention. These findings suggest that anxiety among final-year students extends beyond normal examination-related nervousness and may significantly interfere with students' emotional well-being and educational experiences.

3.3 Factors Associated with Anxiety

Descriptive analyses were conducted to examine the academic, financial, psychosocial, and environmental factors associated with anxiety among respondents.

Table 3. Descriptive Statistics of Factors Associated with Anxiety

Factor	Mean	SD	Interpretation
Confidence in grades	3.95	0.96	High

Worry about examination results	3.50	0.95	High
Preparedness for independent living	3.42	1.20	High
Admission pressure affecting study	3.39	1.28	High
Worry about financing tertiary education	3.38	1.25	High
Support from teachers/counsellors	3.15	1.13	Moderate
Peer comparison	3.05	1.20	Moderate
Concentration difficulties	2.99	1.02	Moderate
Funding plan for tertiary education	2.99	1.22	Moderate
Family pressure	2.91	1.27	Moderate
Sleep difficulty	2.79	1.05	Moderate
Financial stress	2.65	1.36	Moderate
Knowledge of steps if results are insufficient	2.57	1.14	Low
Anxiety about moving away from home	2.44	1.18	Low- Moderate
Major stressful life event	1.71	0.46	Low

Academic concerns were among the most prominent contributors to anxiety. Students reported high levels of concern regarding confidence in their grades (M = 3.95, SD = 0.96), examination results (M = 3.50, SD = 0.95), and admission-related pressure (M = 3.39, SD = 1.28). Financial concerns also featured prominently, particularly worries regarding financing tertiary education (M = 3.38, SD = 1.25). Indicators of emotional strain, including sleep difficulties (M = 2.79, SD = 1.05) and concentration problems (M = 2.99, SD = 1.02), suggest that anxiety was already affecting students' daily functioning and academic engagement.

3.4 Correlates of Anxiety

Pearson correlation analysis revealed that several factors were significantly associated with anxiety.

Table 4. Correlation Between Contributing Factors and Anxiety Levels

Factor	r	p-value
Family pressure	0.452	<0.001

Concentration difficulties	0.359	<0.001
Financial stress	0.323	<0.001
Sleep difficulties	0.229	<0.001
Admission pressure affecting study	0.126	0.049
Worry about examination results	-0.063	0.325
Anxiety about moving away from home	0.013	0.846

Family pressure demonstrated the strongest positive association with anxiety ($r = 0.452$, $p < 0.001$). Concentration difficulties ($r = 0.359$, $p < 0.001$) and financial stress ($r = 0.323$, $p < 0.001$) also showed moderate positive relationships with anxiety.

In contrast, worry about examination results and anxiety related to moving away from home were not significantly associated with overall anxiety levels. These findings suggest that broader psychosocial and financial stressors may exert greater influence on anxiety than examination concerns alone.

3.5 Independent Predictors of Anxiety

Multiple linear regression analysis was conducted to identify independent predictors of anxiety.

Table 5. Multiple Linear Regression Analysis Predicting Anxiety Levels

Predictor	β	Standard Error	t	p-value
Family pressure	1.163	0.224	5.19	<0.001
Concentration difficulties	0.699	0.282	2.48	0.014
Financial stress	0.435	0.211	2.06	0.040
Sleep difficulty	0.369	0.267	1.38	0.168
Admission pressure affecting study	0.128	0.211	0.61	0.543
Constant	6.078	1.104	5.51	<0.001

The regression model was statistically significant ($F(5,238) = 17.41$, $p < 0.001$) and explained 26.8% of the variance in anxiety scores ($R^2 = 0.268$).

Family pressure emerged as the strongest independent predictor of anxiety ($\beta = 1.163$, $p < 0.001$). Concentration difficulties ($\beta = 0.699$, $p = 0.014$) and financial stress ($\beta = 0.435$, $p = 0.040$) also remained significant predictors.

However, sleep difficulties and admission pressure were no longer statistically significant after adjustment for other variables. These findings suggest that psychosocial and financial factors may exert a stronger influence on anxiety than academic concerns alone.

3.6 Coping Strategies and Their Relationship with Anxiety

Students reported using several coping strategies to manage anxiety symptoms.

Table 6. Prevalence of Coping Strategies Used by Students

Coping Strategy	Percentage Using Strategy (%)
Time management	52.4
Talking to someone	41.8
Religious coping	40.2
Exercise	27.0
Avoidance	26.1
Seeking help from counsellor/teacher	15.0
Substance use	5.3
Other	5.3

Time management was the most frequently reported coping strategy (52.4%), followed by talking to someone (41.8%) and religious coping (40.2%). Formal psychological support was less commonly used, with only 15.0% of respondents seeking help from a counsellor or teacher. Substance use was uncommon (5.3%).

Table 7. Regression Analysis of Coping Strategies Predicting Anxiety Levels

Predictor	β	p-value
Time management	0.470	0.487
Talking to someone	-0.499	0.443

Religious coping	0.226	0.729
Exercise	0.004	0.995
Avoidance	-1.011	0.163
Seeking professional help	0.222	0.812

The overall regression model was not statistically significant ($F(6,237) = 0.67$, $p = 0.672$) and explained only 1.7% of the variance in anxiety scores ($R^2 = 0.017$). None of the individual coping strategies significantly predicted anxiety levels. These findings suggest that although students actively engage in various coping behaviours, these strategies may be insufficient to reduce anxiety when broader environmental and psychosocial stressors persist.

Overall, the findings indicate that anxiety among final-year students is influenced more strongly by family expectations, financial insecurity, and academic functioning difficulties than by the coping strategies currently employed by students.

4.0 DISCUSSION

This study examined the prevalence of anxiety, factors associated with anxiety, and coping strategies among final-year senior high school students in Ghana using the Generalized Anxiety Disorder-7 (GAD-7) scale. The findings demonstrate that anxiety is highly prevalent among students and is influenced by a combination of academic, psychosocial, and socioeconomic factors. Family pressure emerged as the strongest independent predictor of anxiety, followed by concentration difficulties and financial stress. Although students reported using several coping strategies, none were significantly associated with lower anxiety levels.

4.1 Anxiety Among Final-Year Students

The present study found a high prevalence of anxiety among final-year students, with more than two-thirds (68.62%) reporting at least mild anxiety symptoms and over one-third (34.24%) experiencing moderate-to-severe anxiety. Although the mean GAD-7 score (7.46 ± 5.01) fell within the mild anxiety range, the substantial proportion of students with moderate and severe symptoms suggests that anxiety represents an important mental health concern within this population.

These findings are consistent with previous research conducted among adolescents preparing for high-stakes examinations. Owusu-Ansah and Addae (2020) reported elevated anxiety levels among Ghanaian students preparing for the WASSCE, while Deb et al. (2015) observed that examination-related pressure significantly increased emotional distress among adolescents in academically competitive environments. Similarly, Putwain and Daly (2014) demonstrated that examination anxiety adversely affects educational engagement, emotional well-being, and academic outcomes.

The present findings reinforce the notion that final-year students represent a particularly vulnerable group because they are simultaneously navigating developmental transitions and high academic expectations. Adolescence is characterised by rapid biological, psychological, and social changes, and these developmental demands may intensify the psychological impact of examination pressures.

Furthermore, the transition from secondary school to tertiary education represents a period of uncertainty. Students are required to make important decisions regarding university applications, career aspirations, and future life goals while simultaneously preparing for

national examinations. The convergence of these demands may increase emotional vulnerability and contribute to elevated anxiety levels.

Although approximately one-third of respondents reported minimal anxiety, the substantial proportion experiencing moderate-to-severe symptoms is concerning. Anxiety at these levels may impair concentration, disrupt sleep patterns, reduce motivation, and negatively influence academic performance. Persistent anxiety during adolescence may also increase the risk of subsequent mental health disorders, including depression and chronic anxiety disorders later in life.

These findings highlight the importance of recognising anxiety among students as a significant educational and public health issue rather than viewing it as a normal consequence of examination preparation.

4.2 Family Pressure, Financial Stress, and Concentration Difficulties as Predictors of Anxiety

One of the most important findings of this study was that family pressure emerged as the strongest predictor of anxiety. Students who reported higher levels of parental expectations were significantly more likely to experience elevated anxiety symptoms.

This finding is consistent with previous studies demonstrating that excessive parental expectations contribute to emotional distress among adolescents (Ang & Huan, 2006; Bansal & Sharma, 2021). Within many Ghanaian families, education is regarded as the primary route to socioeconomic advancement. Consequently, parents may place considerable emphasis on academic achievement, often with the intention of securing better opportunities for their children.

However, these expectations may inadvertently create psychological burdens. Students may internalise parental aspirations and perceive poor academic performance as a personal failure or a source of disappointment to their families. This pressure may generate persistent worry and emotional strain that extends beyond examination periods.

The findings also support Bowen's Family Systems Theory, which proposes that emotional processes within family systems directly influence individual psychological functioning

(Bowen, 1978). According to this framework, emotional stress within families may affect students' ability to regulate emotions and manage academic demands effectively.

Financial stress also emerged as a significant predictor of anxiety. Students expressed concerns regarding university tuition fees, accommodation costs, and general educational expenses. These findings are consistent with those of Eisenberg et al. (2009), who reported that financial insecurity significantly contributes to psychological distress among students.

Financial concerns may be particularly relevant in low- and middle-income countries, where higher education often represents a substantial financial investment for families. Students may experience anxiety not only because of concerns about academic performance but also because of uncertainty regarding whether they will be able to afford tertiary education.

The findings further revealed that concentration difficulties independently predicted anxiety. Students who reported difficulties concentrating during lessons and revision sessions experienced significantly higher anxiety scores.

This finding aligns with Attentional Control Theory proposed by Eysenck et al. (2007), which suggests that anxiety disrupts cognitive processes involved in attention, working memory, and executive functioning. Anxiety may therefore impair students' ability to process information effectively, resulting in poorer academic engagement and increased emotional distress.

Importantly, this relationship is likely bidirectional. Anxiety may impair concentration, while poor concentration may further increase anxiety by reducing students' confidence in their academic abilities. This cyclical interaction may perpetuate emotional distress throughout the academic year.

Interestingly, examination worries alone were not significant predictors once psychosocial variables were considered. This suggests that students may not fear examinations themselves but rather the consequences associated with poor performance. Fear of disappointing family members, concerns about university admission, and uncertainty about future opportunities may exert a stronger influence on anxiety than examination stress in isolation.

Collectively, these findings suggest that anxiety among final-year students is multifactorial and influenced by broader psychosocial and socioeconomic contexts rather than academic demands alone.

4.3 Coping Strategies and Their Limited Impact on Anxiety

The study found that students adopted a variety of coping strategies, with time management, social support, and religious coping being the most commonly reported approaches. However, none of these strategies significantly predicted lower anxiety levels.

Time management was the most frequently used strategy, suggesting that students actively attempt to organise their academic responsibilities and revision schedules. Social support and religious coping were also commonly used, reflecting the importance of interpersonal relationships and spirituality within Ghanaian society.

Nevertheless, the regression analysis demonstrated that these coping strategies explained only a small proportion of the variance in anxiety scores ($R^2 = 0.017$), and none emerged as statistically significant predictors.

These findings suggest that although students are actively attempting to manage stress, their current coping strategies may be insufficient to mitigate the effects of persistent psychosocial and environmental stressors.

This observation supports Lazarus and Folkman's Stress and Coping Theory (1984), which proposes that coping effectiveness depends on whether coping strategies adequately address the underlying source of stress. When stressors are chronic, multidimensional, and largely outside an individual's control, emotion-focused coping strategies may provide only temporary relief.

Many of the coping strategies reported by students appear to be emotion-focused rather than problem-focused. For example, talking to someone or engaging in religious activities may offer emotional reassurance without directly addressing financial insecurity or family expectations.

The low utilisation of professional support services is particularly noteworthy. Only a small proportion of students reported seeking help from teachers or counsellors. This finding may reflect several barriers, including limited access to school counselling services, lack of awareness of available support, concerns regarding confidentiality, or stigma surrounding mental health.

These findings suggest that schools cannot rely solely on students' individual coping efforts. Institutional support systems are necessary to address the broader determinants of anxiety.

4.4 Overall Interpretation of Findings

Taken together, the findings indicate that anxiety among final-year students is a multifaceted phenomenon influenced by developmental, educational, psychosocial, and economic factors.

Although academic demands contribute to emotional distress, the strongest predictors of anxiety were family expectations, concentration difficulties, and financial stress. These findings suggest that interventions focused exclusively on examination preparation are unlikely to produce substantial improvements in students' psychological well-being.

The results also demonstrate that individual coping strategies are insufficient when broader structural stressors remain unresolved. Students require supportive environments that extend beyond the classroom and involve schools, families, and communities.

These findings support a socioecological understanding of student mental health, whereby anxiety is shaped by interactions between individual, family, educational, and societal factors. Addressing anxiety among final-year students therefore requires a coordinated, multi-level approach.

Educational institutions should strengthen school counselling services, parents should be supported to develop realistic academic expectations, and policymakers should implement strategies that reduce financial barriers to tertiary education.

Improving adolescent mental health is not only important for emotional well-being but also for academic success, educational retention, and healthier transitions into adulthood.

5.0 STRENGTHS AND LIMITATIONS

This study possesses several methodological strengths that enhance the credibility and relevance of its findings. The relatively large sample size (N = 701) provided sufficient statistical power to estimate anxiety prevalence with reasonable precision and strengthened the reliability of the analyses performed. Including a large number of final-year students also allowed for a more comprehensive representation of adolescents preparing for high-stakes examinations within the study setting.

Another strength lies in the use of the Generalized Anxiety Disorder-7 (GAD-7) scale, a widely validated and internationally recognised screening instrument with strong psychometric properties. Employing a standardised measure facilitates comparisons with studies conducted in other educational and cultural contexts and contributes to the consistency of anxiety research.

The study also adopted a multidimensional approach by examining academic, familial, financial, and psychosocial determinants simultaneously rather than focusing solely on examination-related stress. This broader perspective provides a more nuanced understanding of the factors shaping anxiety among adolescents and recognises that emotional distress is influenced by multiple interacting systems.

In addition, the application of both descriptive and inferential statistical techniques strengthened the analytical rigour of the study. Correlation and multiple regression analyses enabled the identification of independent predictors of anxiety while accounting for the influence of other variables.

Finally, the study contributes evidence from a sub-Saharan African setting, where adolescent mental health research remains comparatively underrepresented. Given the limited body of literature from Ghana, these findings offer valuable insights that may inform educational policies, school-based interventions, and future research initiatives.

Despite these strengths, several limitations should be considered when interpreting the findings. The cross-sectional nature of the study precludes conclusions about causality. Although family pressure, concentration difficulties, and financial stress were associated with anxiety, the temporal relationship between these variables cannot be established.

The study was also conducted within a single senior high school, which may restrict the generalisability of the findings. Students attending schools in other regions of Ghana, particularly those in rural settings or private institutions, may experience different academic demands and psychosocial stressors.

Another limitation relates to the use of self-reported data. Responses may have been influenced by social desirability bias, inaccurate recall, or reluctance to disclose emotionally distressing experiences. Consequently, anxiety levels may have been either underreported or overestimated.

Although the GAD-7 is an effective screening instrument, it does not provide a clinical diagnosis of an anxiety disorder. The prevalence estimates presented in this study therefore reflect the burden of anxiety symptoms rather than confirmed psychiatric conditions.

Furthermore, several potentially relevant variables were not included in the analysis. Factors such as household income, parental educational attainment, previous mental health history, adverse childhood experiences, and personality characteristics may also influence anxiety and warrant investigation in future studies.

Nevertheless, these limitations do not diminish the overall contribution of the study. Rather, they highlight important areas for future research while underscoring the need for broader, multi-site investigations into adolescent mental health within Ghanaian educational settings.

6.0 PRACTICAL AND POLICY IMPLICATIONS

The findings of this study have important implications for educational policy, school administration, adolescent mental health services, and family involvement.

6.1 Implications for Educational Policy

The high prevalence of anxiety observed among students suggests that mental health should be integrated into educational policy and school health programmes. The Ghana Education Service and the Ministry of Education should strengthen policies that support routine mental health assessment and psychological services within senior high schools.

Routine mental health screening should be introduced, particularly during examination years. The use of brief screening instruments such as the GAD-7 could facilitate early identification of vulnerable students and improve access to appropriate support services.

Mental health indicators should also be incorporated into educational monitoring systems to support evidence-based decision-making.

Furthermore, the significant role of financial stress suggests a need to strengthen scholarship programmes, bursaries, and educational financing schemes that support students from economically disadvantaged backgrounds.

6.2 Implications for School Administration

School administrators should strengthen existing guidance and counselling systems.

Schools should employ adequately trained mental health professionals who can deliver evidence-based interventions, including:

- Stress management programmes
- Study skills workshops
- Cognitive restructuring exercises
- Emotional regulation training
- Examination preparation programmes

Students should have access to confidential psychological support throughout the academic year rather than only during examination periods.

Schools should also establish peer support programmes and mentorship initiatives that provide safe spaces for students to discuss academic and emotional concerns.

6.3 Implications for Family Engagement

Family pressure emerged as the strongest predictor of anxiety, highlighting the importance of involving parents in mental health interventions.

Schools should organise parent education programmes that promote:

- Realistic academic expectations
- Supportive communication styles
- Emotional responsiveness
- Recognition of psychological distress

Parents should be encouraged to provide reassurance and support rather than excessive performance-driven pressure.

Family-centred interventions may substantially reduce emotional distress among students.

6.4 Implications for Mental Health Service Delivery

The finding that coping strategies did not significantly reduce anxiety suggests that informal coping mechanisms alone are insufficient.

Schools should establish stronger partnerships with mental health professionals and district health services to improve referral pathways and continuity of care.

Teachers should receive training to recognise early warning signs of anxiety, including:

- Reduced concentration
- Sleep difficulties
- Declining academic performance
- Social withdrawal

- Persistent worrying

Because teachers interact with students daily, they are well positioned to facilitate early intervention.

Tele-counselling services may also improve access to psychological support, particularly in resource-limited settings.

6.5 Future Research

Several areas warrant further investigation.

First, future studies should employ longitudinal designs to determine causal relationships between anxiety and its predictors.

Second, multi-school studies involving students from different regions of Ghana should be conducted to improve generalisability.

Third, qualitative studies may provide deeper insight into students' lived experiences and emotional responses to academic pressures.

Fourth, intervention studies should be conducted to evaluate the effectiveness of school-based programmes such as:

- Cognitive behavioural interventions
- Mindfulness programmes
- Parent training programmes
- Peer support interventions
- School counselling programmes

Finally, future studies should examine protective factors that promote resilience among students despite exposure to substantial stressors.

7.0 CONCLUSION

Anxiety is highly prevalent among final-year senior high school students in Ghana and represents an important, yet often under-recognised, educational and public health concern. More than two-thirds of students reported at least mild anxiety symptoms, while approximately one-third experienced moderate-to-severe anxiety, indicating that a considerable proportion of adolescents may be vulnerable to emotional distress during a critical stage of their academic journey.

The results indicate that anxiety among students is shaped by a complex interplay of psychosocial, economic, and academic factors rather than by examination pressure alone. Family pressure emerged as the strongest predictor of anxiety, followed by concentration difficulties and financial stress, highlighting the influence of students' broader social environments on their psychological well-being. These findings suggest that focusing exclusively on examination preparation is unlikely to produce meaningful improvements in student mental health if underlying sources of stress remain unaddressed.

Although many students reported adopting coping strategies such as time management, social support, exercise, and religious practices, these approaches were not significantly associated with lower anxiety levels. This observation underscores the limitations of relying solely on individual coping efforts when students continue to face persistent structural and environmental stressors.

The findings reinforce the need for a comprehensive and coordinated response that extends beyond the classroom. Educational institutions, families, mental health professionals, and policymakers all have an important role to play in creating supportive environments that promote both academic success and psychological well-being. Interventions should prioritise routine mental health screening, strengthening school counselling services, promoting realistic parental expectations, and reducing financial barriers that may contribute to students' emotional distress.

Ultimately, educational achievement and mental well-being should not be viewed as separate priorities. Supporting students' mental health is fundamental to improving academic engagement, educational attainment, and successful transitions into adulthood. Investing in evidence-based, school-centred mental health programmes has the potential to strengthen

resilience, improve educational outcomes, and foster healthier developmental trajectories for young people in Ghana.

Given the increasing academic and societal demands placed on adolescents, integrating mental health support into educational systems should no longer be regarded as optional but as an essential component of quality education and long-term youth development.

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