

Financial Stress and Relative Income Perception among Female Undergraduate Students in South-East Nigeria

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Abstract

This study examines the relationship between financial stress, relative income perception, coping strategies, and academic achievement among female undergraduate students in Southeast Nigeria, using data from 362 students across five universities. Key variables were analyzed using Ordered Logistic Regression (OLR) and descriptive statistics. The results show that students with access to financial support, such as loans, have higher odds (odds ratio = 1.772) of better academic performance, while financial constraints, especially those limiting participation in academic activities, reduce performance (odds ratio = 0.399). Relative income perception influences outcomes indirectly: direct income comparison is not significant, but emotional responses to financial conditions are critical. Students who are not emotionally distressed perform better, whereas disengagement from social and consumption trends is associated with lower performance. Coping strategies play a moderating role, with social support from friends and family being the most common; 71.8% of students report improved academic performance after adopting coping strategies, although effectiveness varies. The study concludes that financial stress affects academic performance through structural, psychological, and behavioral pathways, and recommends expanding financial aid, strengthening financial literacy and counseling, and improving access to academic opportunities.

Keywords: Academic Achievement, Coping Strategies, Female Undergraduates, Financial Stress, Nigeria, Relative Income Perception.

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Introduction

Pursuing higher education is widely regarded as a critical investment in human capital and future socioeconomic mobility; however, it is increasingly accompanied by substantial financial burdens. In Southeast Nigeria, female undergraduate students face a unique constellation of challenges, including limited access to financial resources, entrenched cultural and social constraints, economic and security instability, inadequate learning facilities, and persistent gender disparities (Adubale, 2022; Okwelle et al., 2017). These challenges have been further intensified by the rising cost of living in the aftermath of the COVID-19 pandemic, which has significantly worsened household economic conditions across Nigeria. Consequently, growing inequality, declining socioeconomic conditions, and weak or ineffective economic policies have heightened the financial vulnerability of many students, particularly females, thereby increasing their exposure to financial stress.

Financial stress has become a pervasive concern among undergraduate students globally, with well-documented implications for academic performance, mental health, and overall well-being (Andrew et al., 2021; Ashley, 2023; Georgia et al., 2022; Rachel et al., 2024; Sonya et al., 2018; Untara, 2024). Within the context of Southeast Nigeria, where economic instability, cultural expectations, and security challenges intersect, female undergraduate students may experience disproportionately higher levels of financial stress. This heightened vulnerability underscores the need for context-specific investigations into the determinants and consequences of financial stress among this group.

Empirical studies have consistently identified financial stress as a common experience among undergraduate students, particularly females (Alisia et al., 2018; Rachel et al., 2024; Stuart et al., 2014). Key sources of this stress include rising living costs, tuition and associated academic expenses (Hossain et al., 2022; Ogbuagu et al., 2024), debt burdens and student loans, as well as limited access to financial aid and support systems (Johnson, 2009). Additional factors such as borrowing pressures (Hossain et al., 2022) and food and housing insecurity (Goldrick-Rab et al., 2017) further compound students' financial strain. Several studies have established a strong relationship between financial stress and adverse student outcomes, including diminished academic performance (Ogbuagu et al., 2024; Tran et al., 2018; Westefeld et al., 2005). Joo et al. (2008) emphasized that financial concerns are among the most significant stressors for college students, particularly freshmen, with substantial mental health and academic consequences. Similarly, Lyrakos (2012) noted that students must navigate multiple competing academic, social, and financial demands, while Pederson (2012) highlighted that financial stress is inherently subjective, shaped by environmental, psychological, and social contexts. Furthermore, Lim et al. (2012) argued that the continuous rise in student loan debt globally suggests that financial stress levels among students are likely to persist or even worsen.

Beyond objective financial constraints, subjective perceptions of economic standing also play a crucial role in shaping financial stress. The Relative Income Hypothesis posits that individuals' financial satisfaction depends not solely on absolute income but on their perceived position relative to a reference group. This gives rise to relative consumption behaviors, where individuals evaluate their spending patterns and material possessions in comparison to others. Such dynamics often manifest in the phenomenon popularly described as "keeping up with the Joneses," where individuals feel compelled to match the consumption standards of their peers (Duesenberry, 1949). Frank et al. (2004) further argued that individuals tend to compare themselves with those of similar income levels, although in practice, many extend these

comparisons to wealthier groups, thereby increasing pressure to engage in higher levels of consumption (Bowles & Park, 2005). For undergraduate students, particularly females navigating social expectations and identity formation, these relative income perceptions may intensify financial stress and influence academic engagement.

In addition, undergraduate students are typically in a critical developmental stage characterized by heightened susceptibility to peer influence. According to Laursen and Veenstra (2021), the influence-compatibility model suggests that early adulthood is marked by increased conformity, driven by the need for interpersonal and group acceptance. This dynamic can significantly shape students' financial behaviors and academic outcomes. While some studies report positive effects of peer influence on academic achievement, others identify negative consequences, depending on the nature of the peer group and prevailing norms (Castrogiovanni, 2022; Filade et al., 2019; Olalekan, 2016; Victor & Analia, 2007; Wasel, 2022;). In financially constrained environments, peer comparison and social pressure may exacerbate financial stress, particularly when students attempt to align their consumption patterns with those of more affluent peers.

Against this backdrop, this study is motivated by the need to understand the complex interplay between financial stress, relative income perception, and academic performance among female undergraduate students in Southeast Nigeria. Specifically, the study seeks to address the following questions: (a) How does financial stress affect the academic performance of female undergraduate students in Southeast Nigeria? (b) How does the perception of relative income influence their academic performance? and (c) What coping strategies do these students adopt to manage financial stress, and how do these strategies, in turn, affect their academic outcomes? Accordingly, the overall objective of this study is to examine the relationship between financial stress, relative income perception, and academic achievement among female undergraduate students in Southeast Nigeria. The specific objectives are to:

- a) determine the impact of financial stress on the academic performance of female undergraduate students in Southeast Nigeria;
- b) examine how relative income perception influences their academic performance; and
- c) Investigate the coping strategies adopted by female undergraduate students to manage financial stress and assess how these strategies affect their academic performance.

Literature Review

Relative consumption is the idea of comparing one's personal belongings and consumption patterns to those of other people (Duesenberry 1949). In this way, people may experience pressure to align their buying and spending habits with those of their peers or social circle, a phenomenon referred to as "keeping up with the Joneses" (White, 2020)

The Keynesian theory of transactions states that a person's ability to buy daily consumption products depends on their income and that they must maintain a cash balance. Most of the time, people experience pressure to emulate their friends' spending and consuming habits (Francisco et al, 2005; Hollander, 2001; Liu & Wang, 2016; McBride, 2001). Depending on the situation, the effect of relative consumption on academic achievement can change: Following particular spending patterns or habits can lead to a sense of acceptability and belonging in society, which can serve as a driving force for personal achievement. On the downside, placing too much emphasis on material belongings and consumption can divert students' attention from their academic objectives and priorities, and academic performance might suffer if they try to keep up with their peers' spending patterns.

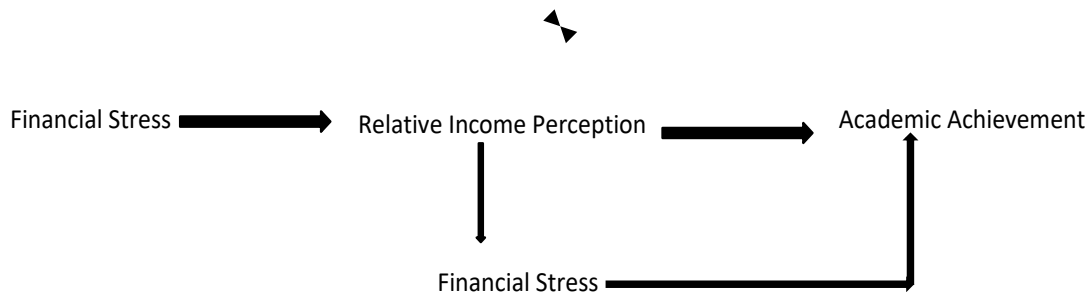
Keeping up with the Joneses and financial stress are significantly correlated. Financial stress can result from the pressure to match the material belongings and spending patterns of others (White, 2020). This can show up in a number of ways, including excessive spending, rising living costs, declining savings, debt accumulation, and a decline in financial well-being (McBride, 2001).

According to the relative income theory, people evaluate their well-being in light of their peers' earnings, which may cause financial stress when they feel pressured to conform to perceived social standards (Elster, 2020). This financial strain can adversely affect academic achievement in several ways. Financial stress can deplete cognitive resources, preoccupying mental capacity and diminishing focus on academic tasks (Gennetian & Shafir, 2015). Consequently, students may experience a decrease in motivation, resulting in reduced interest in their studies (Busse, 2013). Chronic financial stress is also associated with mental health conditions like depression and anxiety, which worsen academic performance (Otieno, 2025). Additionally, students who are struggling financially may show signs of poorer academic engagement, such as less extracurricular activity involvement, lower attendance rates, and less effort put into their academic endeavours (Marsh & Kleitman, 2002). This disengagement can culminate in an increased risk of school dropout, undermining long-term educational and career outcomes (Rumberger & Rotermund, 2012).

Conceptual Framework

The intricate link between financial stress, the relative income hypothesis, and academic success may be explained by a variety of theories; in this study, we'll employ the mediation model listed below:

Fig 1. Relationship Between Financial Stress, Relative Income Perception, and Academic Achievement



Source: Authors Compilation

The diagram above (Fig 1) demonstrates the intricate connection between academic success, perceived relative income, and financial stress. The direction of influence and the connections between the variables are shown by the arrows.

- **Relative Income Perception —> Financial Stress:** The direction above suggests that individuals who perceived themselves as having a lower relative income compared to their peers may experience greater financial stress
- **Financial stress, —> Relative Income Perception:** The direction suggests that individuals who experience financial stress may be more likely to perceive themselves as having a lower relative income compared to others

- **Financial Stress, ↔ Relative Income Perception, → and Academic Achievement:** This direction means that financial stress has an impact on relative income perception, and relative income perception also affects financial stress, and both have an effect on academic achievement.

The conceptual framework for this study is grounded in the Relative Income Hypothesis and Stress and Coping Theory, and is structured as a mediated and moderated model linking financial stress, relative income perception, coping strategies, and academic achievement among female undergraduate students in Southeast Nigeria.

Figure 1 illustrates the hypothesized relationships among the variables, with arrows indicating the direction of influence. The framework posits that relative income perception and financial stress are dynamically interrelated. On one hand, students who perceive their income as lower relative to their peers are more likely to experience financial stress, consistent with the Relative Income Hypothesis, which emphasizes social comparison in shaping economic well-being. On the other hand, financial stress may also influence how students perceive their relative income, creating a bidirectional relationship between the two variables.

Financial stress is expected to exert a direct negative effect on academic achievement by limiting access to academic resources, increasing emotional strain, and reducing students' ability to concentrate on their studies. At the same time, relative income perception functions as a mediating variable through which financial stress indirectly affects academic performance. Students who perceive themselves as financially disadvantaged may experience lower self-esteem, reduced motivation, and heightened psychological distress, which in turn influence their academic outcomes.

In addition, the framework incorporates coping strategies as a moderating variable. Coping strategies determine how effectively students manage financial stress and, consequently, the extent to which such stress affects academic performance. Adaptive coping strategies, such as seeking social support, can reduce the negative impact of financial stress, whereas maladaptive strategies, such as avoidance, may exacerbate its effects. Overall, the framework suggests that academic achievement is influenced through a multidimensional process: financial stress affects performance both directly and indirectly through relative income perception (mediation), while coping strategies shape the strength and direction of this relationship (moderation). The bidirectional interaction between financial stress and relative income perception further highlights the interplay between objective financial conditions and subjective financial evaluation.

Theoretical Literature

This study is anchored on the Relative Income Hypothesis and supported by the Stress and Coping Theory, as both provide a comprehensive explanation of the relationships among financial stress, relative income perception, coping strategies, and academic performance among female undergraduate students.

The Relative Income Hypothesis, originally proposed by Duesenberry (1949), posits that individuals derive satisfaction not from absolute income but from their income relative to that of others within their reference group. This perspective has been reinforced by recent empirical studies, which show that subjective financial well-being is strongly shaped by social comparison processes (Cheung & Lucas, 2016; Clark et al., 2018; Donnelly et al., 2021). Individuals often evaluate their financial standing, consumption patterns, and lifestyle relative

to peers, resulting in perceived deprivation even when basic needs are met. Frank et al. (2004) and Bowles and Park (2005) further argue that such comparisons frequently extend beyond similar income groups to wealthier reference groups, thereby intensifying financial pressure and consumption-driven stress.

Within the Nigerian context, this dynamic is particularly evident among university students. Recent studies indicate that financial stress among undergraduates is strongly influenced by rising costs of tuition, feeding, and academic materials, as well as limited access to financial support systems (Akinyemi & Adewuyi, 2022; National Bureau of Statistics, 2023). In Southeast Nigeria specifically, financial stress has been found to significantly reduce students' ability to meet academic demands due to difficulties in paying fees, purchasing learning materials, and balancing work with study (Okafor & Udeh, 2021). Furthermore, financial insecurity and economic hardship have been linked to adverse psychosocial outcomes among Nigerian undergraduates, reinforcing the role of perceived financial inadequacy in shaping student experiences (Eze et al., 2022; Oladipo et al., 2020). These findings suggest that relative income perception, driven by peer comparison within academic environments, may heighten financial stress and negatively influence academic engagement, particularly among female students who may face additional socioeconomic constraints

Stress and Coping Theory

Complementing this perspective, the Stress and Coping Theory developed by Lazarus and Folkman (1984) explains how individuals respond to stressful conditions when perceived demands exceed available resources. Although foundational, the theory remains widely applied in contemporary research on student stress and adaptation (Folkman, 2013; Pascoe et al., 2020). It distinguishes between problem-focused coping, which involves addressing the source of stress, and emotion-focused coping, which involves managing emotional responses. The effectiveness of these coping strategies determines the extent to which stress affects individual functioning.

In Nigeria, recent studies highlight the critical role of coping strategies in moderating the effects of financial stress on students' outcomes. For instance, evidence shows that structured coping interventions, particularly cognitive-behavioral strategies, significantly improve students' ability to manage academic stress and related pressures (Hofmann et al., 2012; Regehr et al., 2013). Similarly, financial stress has been shown to negatively affect students' mental health and well-being, which in turn influences academic performance if not effectively managed (Adebayo, 2019; Robotham, 2008). In the Nigerian context, students who adopt adaptive coping strategies, such as problem-focused coping and social support, tend to demonstrate better academic adjustment despite financial constraints (Ezenwaji et al., 2020; Ojo, 2021). These findings underscore that while financial stress is prevalent, students' coping mechanisms play a crucial role in determining whether such stress translates into poor academic outcomes.

Applying this framework to the present study, female undergraduate students in Southeast Nigeria may adopt diverse coping strategies in response to financial stress. Adaptive strategies such as budgeting, seeking financial assistance, and engaging in part-time work may help mitigate academic disruption, whereas maladaptive responses such as avoidance or withdrawal may exacerbate stress and reduce academic performance. Therefore, coping strategies serve as a key mediating factor between financial stress and academic achievement.

By integrating the Relative Income Hypothesis with the Stress and Coping Theory, this study provides a holistic framework that captures both the origin of financial stress (social comparison and perceived relative deprivation) and the response to that stress (coping mechanisms). This combined approach is particularly relevant within the Nigerian context, where economic challenges, social expectations, and institutional constraints intersect to shape the academic experiences of female undergraduate students.

Empirical Literature Review

Financial stress is prevalent among female undergraduates, and studies have indicated that over 60 – 80% of female undergraduates experience some level of financial stress. Alisia et al (2018) examined financial stress and general anxiety in college students using a population of 304, about the moderating roles of different family and social support. The study revealed that the correlation between financial stress and anxiety is stronger for female college students, regardless of family support. Jungmin et al. (2020) focused on the effect of stress, anxiety, and depression symptoms on students in public universities in Kentucky during the early phase of Covid 19. The findings indicate that 88percent of students experience moderate to severe stress, 44percent experience anxiety, and 36percent experience depression. The study pointed out that a large percentage of them are female rural, low-income college students, while Misra and Castillo (2004) suggest that males and females differ in their academic stress perception, supported by Calaguas, 2011; Sulaiman et al., 2009; Untara, 2022). Ogbuagu et al. (2024) employed descriptive statistics and Chi-square to examine how financial stress affect academic performance of 250 respondents from a university in Southeast Nigeria. The study indicates that monthly income and the cost of medical bills are the key determinants of financial stress among students.

Gao et al. (2020) analyzed 1892 students from 15 universities in China (898 females and 994 males). The analysis emphasized that a significantly larger proportion of female students experience anxiety above the normal threshold, and no gender differences were found in stress problems among the college students. Derek et al. (2020) evaluated data from Midwestern Public University using the Roy Adaptation Model and ordinary least squares to investigate the predictors of financial anxiety in first-generation students. The study shows that students' self-concepts appeared to be key determinants of financial anxiety, also Students who compare their financial position to that of their peers experience increased anxiety when they feel worse off than their counterparts, this study seems to concur with the findings of Stuart et al. (2014) who emphasized that the stressors of financial stress are students getting worried because they lack money to participate on the same activities like their peers and also students expect a high amount of students loan. However, Heckman (2014) suggests that students who have self-control over their life events are less subject to anxiety.

Sonya et al. (2016), using a population of 2,236 students from a Midwestern college, investigate how resources and perceptions alter the amount of financial stress felt by college students and their impact on academic achievement. The results found that financial and life stressors, higher subjective financial knowledge, fewer financial resources, negative perceptions, and lower mastery are associated with higher financial stress. Most importantly, financial stress is not associated with academic achievement, but the stressors do (supported by Stuart et al. 2014). Rachel et al. (2024) utilized a stress process model framework and ordered a probit regression model, using data from the 2020 study on collegiate financial wellness in a population of 25,310. The study confirms ongoing financial stress among college

students and remarks that students with higher levels of financial self-efficacy experience less financial stress. Stuart et al. (2014) explored factors related to financial stress among Ohio University college students using the Roy Adaptation Model and a multivariate logistic regression model. The results indicate that 71 percent of students reported personal income.

From the above studies, financial stress is a prevalent issue among college students, especially female gender. Research suggests that a significant number of students experience financial stress, which can negatively impact academic performance, mental health, and overall well-being. But most often, some factors can trigger financial stress. Below are studies that have tried to investigate, analyze, and evaluate the stressors of financial stress. White (2020) examined the relationship between financial stress and the relative income hypothesis among 965 black students attending 52 predominantly white universities and colleges in the United States. Based on the findings of the study, the relative income hypothesis is a significant mediator of financial stress. This study is supported by (Agolla & Ongori 2009; Stuart et al 2014). However, Xu et al. (2022) in a sample of 3,616 students, decided to observe how consumption behavior contributes to financial stress and academic achievement. The result revealed that the consumption behaviours of students are a stressor of financial stress, and some consumption patterns can distinguish students with excellent grades from those who lag.

In a study conducted by Sonya et al. (2015) on 675 students from Midwestern University, the study found that financial stress is primarily caused by predators. In the study, it was discovered that freshmen, students with a low perceived mastery and net worth, as well as students with student loans, are the most likely to experience financial stress. Joo et al. (2008) added that financial concerns are the primary stressor for college students, especially freshmen. Other factors are: the cost of commuting to school, especially for those who live in off-campus arrangements, a poor socio-economic environment, low family income, and concerns about how to finance education. Agolla and Ongari (2009) suggest that academic difficulties are also a factor of stress for students, in addition to students' self-expectations, expectations from peers, and financial limitations (Agolla & Ongari, 2009; Johnson, 2009; Misra & Castillo, 2009).

Among the factors that affect academic performance is peer pressure because students in higher institutions spend most of their time together in the school environment. There are strands of literature that focus on the peer influence on academic performance; Filade et al (2019), using a sample of 116 students from five departments in the School of Education and Humanities, adopted a mixed-method design and found a significant relationship between peer group and academic performance of the undergraduate student. While Castrogiovanni (2002) added that negative peer influence could be seen as one of the factors that militate against good academic performance, this is Olalekan (2016) supported this argument by adding that peer pressure most time neglects academic priorities and thus academic performance is grossly affected. Wasel (2022) explored the effects of peer pressure on students' academic performance with 56 students sample at Nile University in Egypt. The study indicated that the Egyptian students experience both positive and negative effects of peer pressure on academic performance. Victor and Analia (2007) examined the mechanisms and impacts of gender peer effects at school. The result revealed that female peers lower the level of classroom disruption and violence.

There is a relationship between social networking, peer expenditure, and spending behavior. Social networking can influence an individual's spending habits and consumption behavior, especially among young adults and teenagers. Social media showcases the highlight reels of others' lives or facilitates peer pressure to spend money, as individuals feel encouraged

to fit in or maintain a certain image. So many studies like Oyeboade (2017) employed multiple regression analysis in a sample of 232 students of the University of Ibadan, the study concluded that socioeconomic status has a significant effect on social media usage while peer pressure significantly affects the use of social media by undergraduate students while Edkin (2022) explained that socialization, peer influence, and gender differences are key factors responsible for individuals adopting risk-taking behavior. Gulati (2017) investigated the impact of peer pressure on buying behaviors and affirms that peer pressure has a direct influence on the actual and potential purchases of a rational consumer. Lydia and Rene (2023) concurred with the above by adding that young adolescents are likely to cluster with peers who have pre-existing similarities in behavior, attitude, and values (Mohammed et al., 2016; Mohube, 2007; Veenstra, 2021). Darshini et al. (2022) utilized a sample of 300 students in Malaysia using a descriptive survey to determine the relationship between the spending behavior of university students. The study found that peer influence and parental income are strong determinants of the spending behaviours of university students.

Method

This study investigates financial stress among female undergraduate students in Southeast Nigeria, focusing on the examination of the Relative Income Hypothesis. Data was collected from five key universities in the southeastern region: Coal City University in Enugu State, Imo State University (IMSU) in Imo State, Alex Ekwueme Federal University Ndufu-Alike (AE-FUNAI) in Ebonyi State, Nnamdi Azikiwe University (UNIZIK), and Odimegwu Ojukwu University, Anambra State. A population-based, cross-sectional approach was employed, with data gathered through an online survey targeting female students from these institutions. Due to the impracticality of covering all universities within Nigeria, an inductive research design was adopted, focusing on these representative institutions in the region.

The Southeast region of Nigeria consists of four states: Enugu, Imo, Ebonyi, and Anambra. The region spans a landmass of approximately 29,000 square kilometers and accounts for about 12.5% of Nigeria's population, which is estimated to be over 25 million, based on the most recent census figures (National Bureau of Statistics, 2021). Predominantly inhabited by the Igbo ethnic group, the region is also home to a diverse student population, with an estimated 800,000 undergraduates attending its universities. Among these, a significant proportion are female students, many of whom face financial challenges influenced by socio-economic disparities, family incomes, and the broader economic environment. By focusing on female undergraduates, this study sheds light on how financial stress impacts academic performance, particularly in the context of the Relative Income Hypothesis, which suggests that perceptions of income inequality can influence stress levels and behavioral outcomes, which in turn can affect education performance of students. The findings offer actionable insights for policymakers, university administrators, and stakeholders to develop targeted interventions that address the unique financial challenges faced by female students in the region.

Since academic performance has a direct influence on both individual achievement and societal growth, it is essential to understand it in educational research. Human capital theory, which holds that spending on education and skill development increases productivity and improves economic results, serves as the foundation for this paradigm (Becker 1964). A mix of environmental, financial, and personal variables affects academic success, which is a

quantifiable result of these investments. The required sample size was calculated using Cochran's model (1977), and a 362-sample size was obtained. The formula can be seen below;

$$S = \frac{N}{[1 + N(e^2)]} \tag{1}$$

Where;

S: Sample size

N: Population of South Eastern Universities,

e: level of Significance (5.26 % in this case, indicating 94 % level of confidence)

Therefore, with a population size of 1,900,000 respondents and a level of significance *e* of 0.0526 (5.26%), the sample size for this study is calculated as follows:

$$S = \frac{1,900,000}{1 + 1,900,000(0.0526)^2} = 362 \tag{2}$$

Using the result obtained from the sample size calculation, it can be understood that the sample size for this study, at a 94% confidence interval, is 362 respondents. This sample size was determined using a 5.26% level of significance, providing a reliable representation of the target population. The study utilized an online survey to collect data from the selected respondents, ensuring that the methodology was sound and consistent. The survey platform was chosen for its ease of use, and it was distributed through various channels to ensure broad accessibility.

Potential respondents were carefully selected according to predefined criteria to ensure the data was representative of the population. The survey included an introductory section to foster trust and encourage honest responses. To ensure high-quality data, the survey went through a pre-testing phase with a small group, allowing for adjustments to improve its accuracy. Logic checks were integrated into the survey to minimize errors, and robust data encryption methods were employed to safeguard respondent information. Additionally, regular backups of the data ensured no loss occurred throughout the process.

Once the data collection phase was completed, the dataset underwent careful analysis to maintain its integrity and reliability. The overall research process was designed to ensure that the findings were credible and could serve as a solid basis for concluding the impact of financial stress on female undergraduate students in South-Eastern Nigeria. Since an ordered logistic regression takes into consideration the natural ordering of performance levels without presuming equal distances between them, it is suitable for modelling academic performance as an ordinal outcome (Greene, 2012). This approach takes into account a number of socioeconomic and demographic elements that are thought to affect academic achievement.

Ordered Logistic Regression Model Specification:

The best option in this case is ordered logistic regression, as it models an ordinal outcome without assuming that the variations in academic performance levels are equal. Using each predictor, this method enables us to calculate the likelihood that a student will fall into a better or lower performance category (Long & Freese 2006). Furthermore, the proportionate odds assumption is taken into consideration using ordered logistic regression, indicating that there is a constant association between predictors and academic success throughout

performance levels (Williams 2006). The Ordered Logistic Regression will be adopted to analyze objectives 1 and 2 of this research.

Given these variables, the ordered logistic regression model can be specified as follows:

$$\text{logit}(P(Y_i \leq j)) = \alpha_j - \beta_1 \text{Age}_i - \beta_2 \text{FieldStudy}_i - \beta_3 \text{YearStudy}_i - \beta_4 \text{DegreeComp}_i - \beta_5 \text{StudentLoan}_i - \beta_6 \text{MonthlyExp}_i - \beta_7 \text{SchoolFees}_i - \beta_8 \text{Feeding}_i - \beta_9 \text{PhysUpkeep}_i - \beta_{10} \text{EducAct}_i - \beta_{11} \text{Employment}_i$$

Where:

- $P(Y_i \leq j)$ is the cumulative probability of the dependent variable Y_i (academic performance) being at or below a level j ,
- α_j represents the cut-off points or thresholds between ordered categories of academic performance,
- β_k These are the coefficients for each independent variable k , representing the impact of each factor on the likelihood of achieving a certain level of academic performance.

The above model specification, as seen above in equation (3), will be adopted to define hypothesis 1; also, with slight changes in the variable specification while maintaining the dependent variable, it will be used for hypothesis 2. Independent variables to consider in hypothesis 2 are: [Your income compared to peers pressured to maintain lifestyle, compare financial status to others, Important to keep up with the latest trends, emotionally drained caused by financial situation, Financial situation limits your participation in education activities, how often you use social media, Living expenses monthly]. The 3 and last hypothesis will be determined using a descriptive analysis, which will determine the frequency of the coping mechanisms employed by students who face financial stress and the effectiveness of these strategies.

Results

Objective 1: The effect of financial stress on the academic performance of female undergraduate students in Southeast Nigeria.

An Ordered Logistic Regression Model (OLR) was used to determine the effect of financial stress on the academic performance of female undergraduate students in five universities in the Southeast, Nigeria. And to test the null hypothesis that there is no effect of financial stress on the academic performance of female undergraduate students. The result is presented below:

Table 1: The effect of financial stress on the academic performance of female undergraduate students in Southeast Nigeria

Academic performance	Estimate	Exp (Odds ratio)	Sig.	95% Confidence Interval	
				Lower	Upper
	(1)	1.033550			
	(2)	54			
	(3)	.033	.971	-1.768	1.835
	(4)	.310	.657	-1.059	1.679
Age	(5)	.450	.519	-.918	1.818
		-.155	.841	-1.669	1.359
	0 ^a	0.856415	.	.	.
		18			
		-			

	(1)		1.049170			
	(2)		66			
	(3)	.048	0.440431	.893	-.646	.741
	(4)	-.820	65	.069	-1.706	.065
Field of study	(5)	-.628	0.533658	.022	-1.166	-.090
		-1.314	05	.066	-2.712	.085
		0 ^a	0.268742	.	.	.
			93			
			-			
	(1)		1.614459			
	(2)		14			
	(3)	.479	0.695586	.563	-1.144	2.103
	(4)	-.363	43	.642	-1.898	1.171
Year of study	(5)	-.210	0.810584	.794	-1.784	1.365
		-.214	25	.796	-1.833	1.406
		0a	0.807348	.	.	.
			39			
			-			
	(1)		0.824481			
Degree completion	(2)	-.193	97	.745	-1.358	.972
		0 ^a	-	.	.	.
	(1)		1.771807			
Student loan	(2)	.572	12	.040	.027	1.117
		0 ^a	-	.	.	.
	(1)		4.145402			
	(2)		96			
	(3)	1.422	1.565178	.054	-.024	2.868
	(4)	.448	7	.334	-.461	1.357
Monthly expenses	(5)	.969	2.635307	.030	.091	1.847
		.921	83	.005	.273	1.569
		0a	2.511800	.	.	.
			94			
			-			
	(1)		0.767205			
	(2)		95			
	(3)	-.265	1.275068	.642	-1.382	.852
	(4)	.243	62	.554	-.562	1.048
School fees	(5)	.053	1.054429	.899	-.755	.860
		-.093	65	.767	-.709	.523
		0a	0.911193	.	.	.
			5			
			-			
	(1)		1.119631			
	(2)		93			
	(3)	.113	0.693502	.817	-.843	1.069
	(4)	-.366	8	.360	-1.148	.416
Feeding	(5)	-.188	0.828614	.667	-1.042	.667
		-.382	71	.268	-1.058	.294
		0a	0.682495	.	.	.
			05			
			-			

	(1)		0.407791			
	(2)		2			
	(3)	-.897	0.758054	.256	-2.444	.650
	(4)	-.277	5	.616	-1.358	.805
Physical upkeep	(5)	-.551	0.576373	.189	-1.374	.271
		-.519	15	.094	-1.127	.088
		0a	0.595115	.	.	.
			37			
			-			
Participation in educational activities	(1)		0.399316	.001	-1.438	-.399
	(2)	-.918	88	.	.	.
		0 ^a	-			
	(1)		0.330549			
	(2)	-1.107	12	.295	-3.179	.965
Employed	(3)	.860	2.363160	.044	.022	1.698
		0a	69	.	.	.
			-			
Number of observations						
P ² (Cox and Snell)		362				
P ² (Nagelkerke)		.142				
P ² (McFadden)		.151				
		.055				
Model fitting				0.009		
Pearson				1.000		
Deviance				1.000		
Parallel lines				0.053		

Source: Authors Compilation (SPSS 22)

From Table 1, the Ordered Logistic Regression (OLR) results reveal that financial stress plays a significant role in shaping the academic performance of female undergraduate students in Southeast Nigeria. The model is statistically significant ($p < 0.05$), and the pseudo R² values (Cox and Snell = 0.142; Nagelkerke = 0.151; McFadden = 0.055) indicate moderate explanatory power. The test of parallel lines ($p > 0.05$) confirms that the proportional odds assumption is not violated, validating the suitability of the model.

The findings show that both financial support and financial constraints significantly influence academic outcomes. Access to financial support, particularly student loans, has a positive and statistically significant effect on academic performance ($\beta = 0.572$, $p < 0.05$; OR = 1.772). This implies that students with financial support have higher odds of achieving better academic performance compared to those without such support, highlighting the importance of financial assistance in reducing stress and enabling academic focus. Conversely, financial constraints that limit students' participation in educational opportunities—such as access to learning materials, workshops, and academic engagements—have a strong negative and statistically significant effect on academic performance ($\beta = -0.918$, $p < 0.01$; OR = 0.399). This indicates that affected students have substantially lower odds of performing well academically, emphasizing how restricted academic engagement due to financial hardship undermines performance.

The analysis also reveals that students' perception of their financial situation plays an important role. Students who report moderate concern about their monthly expenses demonstrate significantly higher odds of academic success (OR = 2.635 and OR = 2.512 for

different response categories), suggesting that manageable levels of financial pressure may enhance motivation and academic engagement. However, severe financial limitations tend to produce the opposite effect, reducing performance. In terms of academic discipline, students in the social sciences exhibit significantly lower academic performance compared to their counterparts in other fields ($\beta = -0.628, p < 0.05; OR = 0.534$), indicating lower odds of being in higher performance categories. This may reflect structural differences in funding opportunities, resource availability, or financial vulnerability across disciplines.

Employment status also shows meaningful influence. Students engaged in part-time employment demonstrate higher odds of better academic performance ($\beta = 0.860, p < 0.05; OR = 2.363$), suggesting that part-time work may provide financial stability and enhance time management skills, thereby supporting academic success. On the other hand, variables such as age, year of study, expected time of degree completion, and financial concerns related to school fees, feeding, and physical upkeep do not exhibit statistically significant effects on academic performance. This suggests that while these factors may contribute to students' overall financial experiences, they do not independently determine academic outcomes within the model.

Overall, the results provide strong evidence that financial stress significantly affects academic performance among female undergraduate students in Southeast Nigeria. Financial support mechanisms improve academic outcomes, while financial constraints, particularly those that limit access to educational opportunities, reduce the likelihood of success. These findings underscore the critical role of financial capacity and access to resources in shaping students' academic trajectories.

Objective 2: Examines how perceptions of relative income influence the academic performance of female undergraduate students in Southeast Nigeria.

Also, as in objective 1, the Ordered Logistic Regression Model is used to examine how the perception of relative income influences the academic performance of female undergraduate students and to test the overall null hypothesis that there is no significant relationship between the perception of relative income and academic performance among female undergraduate students.

Table 2: Examines how perceptions of relative income influence the academic performance of female undergraduate students in Southeast Nigeria.

Academic performance	Estimate	Exp (Odds ratio)	Sig.	95% Confidence Interval	
				Lower	Upper
		0.174819			
		72			
	(1)	-1.744	0.269550	.075	-3.661 .173
	(2)	-1.311	37	.176	-3.207 .586
Your income compared to peers	(3)	-1.241	0.289094	.211	-3.186 .703
	(4)	-1.423	98	.172	-3.468 .621
	(5)	0a	0.240989	.	. .
		96			
		-			
	(1)	.092	1.096364	.682	-.346 .529
Pressured to maintain lifestyle	(2)	0 ^a	82	.	. .
		-			

			1.236147			
			89			
	(1)	.212	0.664314	.660	-.732	1.156
	(2)	-.409	23	.377	-1.316	.499
Compare fin status to others	(3)	-.266	0.766439	.538	-1.112	.581
	(4)	-.284	13	.566	-1.253	.686
	(5)	0a	0.752766	.	.	.
			64			
			-			
			0.363127			
			96			
	(1)	-1.013	0.344039	.007	-1.745	-.280
	(2)	-1.067	09	.005	-1.820	-.314
Important to keep up with the latest trends	(3)	-1.116	0.327587	.001	-1.777	-.455
	(4)	-.461	53	.195	-1.158	.236
	(5)	0a	0.630652	.	.	.
			68			
			-			
			2.781526			
			84			
	(1)	1.023	1.879489	.010	.245	1.801
	(2)	.631	13	.177	-.284	1.547
Emotionally drained caused by fin sit	(3)	.332	1.393752	.273	-.261	.926
	(4)	.273	85	.464	-.457	1.002
	(5)	0a	1.313900	.	.	.
			24			
			-			
			0.533124			
	(1)	-.629	66	.020	-1.159	-.099
Fin situation limits your participation in edu act	(2)	0a	-	.	.	.
			1.261119			
			73			
	(1)	.232	1.267441	.505	-.450	.913
	(2)	.237	12	.415	-.333	.806
How often you use social media	(3)	-.213	0.808156	.473	-.793	.368
	(4)	0a	14	.	.	.
			-			
			0.416862			
			02			
	(1)	-.875	0.422739	.273	-2.441	.690
	(2)	-.861	13	.277	-2.415	.693
Living expenses monthly	(3)	-.609	0.543894	.473	-2.273	1.054
	(4)	.456	49	.649	-1.506	2.418
	(5)	0a	1.577750	.	.	.
			34			
			-			
Number of observations		362				
P ² (Cox and Snell)		.151				
P ² (Nagelkerke)		.161				
P ² (McFadden)		.059				

Model fitting	0.000
Pearson	0.178
Deviance	1.000
Parallel lines	0.584

Source: Authors Compilation (SPSS 22)

The Ordered Logistic Regression (OLR) results in Table 2 examine the influence of relative income perception on the academic performance of female undergraduate students in Southeast Nigeria. The model is statistically significant ($p < 0.05$), with pseudo R^2 values (Cox and Snell = 0.151; Nagelkerke = 0.161; McFadden = 0.059) indicating moderate explanatory power. The test of parallel lines ($p > 0.05$) confirms that the proportional odds assumption is satisfied, validating the model’s appropriateness.

The findings reveal that the impact of relative income perception on academic performance operates primarily through behavioral and psychological channels rather than direct income comparisons. Among the key determinants, students’ attitudes toward consumption and social trends show a statistically significant relationship with academic outcomes. Specifically, students who consider it unimportant, slightly unimportant, or neutral to keep up with trends and consumer goods exhibit significantly lower academic performance ($\beta = -1.013, -1.067, -1.116; p < 0.01$), with odds ratios ranging from 0.328 to 0.363. This indicates that such students have substantially lower odds (approximately 63–67% lower) of being in higher academic performance categories compared to those who consider keeping up with trends important.

Emotional responses to financial conditions also emerge as a critical factor. Students who report not being emotionally drained by their financial situation demonstrate significantly higher academic performance ($\beta = 1.023, p < 0.05; OR = 2.782$), implying that they have nearly three times the odds of achieving better academic outcomes compared to those experiencing financial-related emotional strain. This highlights the importance of psychological resilience in moderating the effects of financial stress.

In addition, financial constraints that limit participation in educational activities—such as access to academic materials, workshops, and conferences- have a negative and statistically significant effect on academic performance ($\beta = -0.629, p < 0.05; OR = 0.533$). Students facing such constraints have lower odds (approximately 46.7% lower) of performing well academically, underscoring the direct impact of restricted academic engagement due to financial hardship. Conversely, other dimensions of relative income perception, including perceived income relative to peers, pressure to maintain a particular lifestyle, frequency of financial comparison with others, social media usage, and variations in monthly living expenses, do not show statistically significant effects on academic performance. This suggests that external comparisons and perceived social pressures alone do not directly determine academic outcomes.

Overall, the results indicate that relative income perception influences academic performance indirectly, primarily through emotional well-being and access to academic opportunities rather than through objective income comparisons. While psychological resilience enhances academic outcomes, financial constraints that restrict participation in educational activities significantly reduce students’ likelihood of academic success.

Objective 3: To investigate the coping strategies used by female undergraduate students in South East Nigeria to manage financial stress and their impact on academic performance.

Descriptive statistic was utilized to investigate the coping strategies used by female undergraduate students in South East Nigeria to manage financial stress and their impact on academic performance. And below is the result of the analysis:

Table 4.3: The coping strategies used by female undergraduate students

Which of the following coping strategies do you often use?		
Variables	Frequency	Percent
Talking to friends/family	150	41.4
Seeking professional help	14	3.9
Engaging in hobbies	48	13.3
Avoiding thinking about financial issues	118	32.6
Other	32	8.8
Total	362	100.0
How effective do you find the coping strategies in reducing financial stress?		
Not effective	40	11.0
Somewhat Ineffective	37	10.2
Neutral	144	39.8
Effective	104	28.7
Very Effective	29	8.0
Missing	8	2.2
Total	362	100.0
Have you noticed any positive changes in your academic performance since using these coping strategies?		
Yes	260	71.8
No	102	28.2
Total	362	100.0
How would you rate your current academic performance?		
Poor	15	4.1
Fair	73	20.2
Good	165	45.6
Very Good	75	20.7
Excellent	31	8.6
Missing	3	.8
Total	362	100.0

Source: Authors Compilation (SPSS 22)

Table 3 presents descriptive statistics on the coping strategies adopted by female undergraduate students in Southeast Nigeria to manage financial stress and their perceived impact on academic performance. The results show that students predominantly rely on informal, social-based coping mechanisms, with *talking to friends and/or family* emerging as the most commonly used strategy (41.4%). This is followed by avoidance-based coping, specifically avoiding thinking about financial issues (32.6%). In contrast, relatively fewer students engage in adaptive or structured coping strategies, such as engaging in hobbies (13.3%) or seeking professional help (3.9%), while 8.8% reported using other strategies.

In terms of perceived effectiveness, the coping strategies demonstrate mixed outcomes. A substantial proportion of students (39.8%) reported that their coping strategies were neither effective nor ineffective, suggesting a moderate or uncertain impact. Meanwhile, 28.7% considered their strategies effective and 8.0% highly effective, whereas 21.2% (combining ineffective and somewhat ineffective responses) perceived them as ineffective. This distribution indicates that while coping mechanisms are widely utilized, their effectiveness in mitigating financial stress varies considerably across individuals. Despite this variation, a notable majority of respondents (71.8%) reported positive changes in their academic performance since adopting these coping strategies. This suggests that coping mechanisms, particularly social support, may play a meaningful role in buffering the negative effects of financial stress on academic outcomes. Furthermore, self-assessment of academic performance reveals that most students fall within the moderate-to-high performance range, with 45.6% rating their performance as good, 20.7% as very good, and 8.6% as excellent. However, a non-negligible proportion reported lower performance levels, with 20.2% indicating fair performance and 4.1% reporting poor performance. This distribution reflects variability in academic outcomes, potentially influenced by differences in coping effectiveness and financial stress levels.

Overall, the findings suggest that while coping strategies are widely adopted among students experiencing financial stress, there is a strong reliance on informal and avoidance-based mechanisms, with limited engagement in professional support systems. Although many students perceive improvements in academic performance, the mixed effectiveness ratings indicate that not all coping strategies are equally beneficial. These results highlight the importance of promoting more adaptive and structured coping strategies, such as counseling and skill-based interventions, to enhance students' ability to manage financial stress and improve academic outcomes.

Discussion of Findings

The findings of this study demonstrate that financial stress, relative income perception, and coping strategies jointly influence the academic performance of female undergraduate students in Southeast Nigeria. Anchored on the Relative Income Hypothesis and Stress and Coping Theory, the results show that both objective financial conditions and subjective financial perceptions, alongside coping responses, shape academic outcomes.

Consistent with the Relative Income Hypothesis (Duesenberry, 1949), individuals evaluate their financial well-being relative to others. However, the results indicate that direct income comparisons with peers and perceived lifestyle pressures do not significantly predict academic performance. This suggests that relative income effects are not driven solely by objective comparisons but rather by how such comparisons are psychologically internalized. This finding aligns with evidence that perceived relative deprivation, rather than actual income differences, has a stronger influence on individual outcomes (Clark et al., 2008).

Instead, emotional responses to financial conditions emerge as more critical determinants of academic performance. Students who report not being emotionally drained by their financial situation demonstrate significantly better academic outcomes. This supports the Stress and Coping Theory (Lazarus & Folkman, 1984), which posits that the impact of stress depends on individuals' cognitive appraisal and coping mechanisms rather than the stressor itself. Thus, financial stress influences academic performance indirectly through emotional strain and psychological processing.

The results further highlight the structural dimension of financial stress. Access to financial support mechanisms, such as student loans, is associated with improved academic performance, indicating that financial stability enhances students' ability to engage effectively in their studies. In contrast, financial constraints that limit participation in educational opportunities, such as access to learning materials, workshops, and academic resources, significantly reduce academic performance. These findings are consistent with prior research (Joo et al., 2008; Misra & Castillo, 2004), which emphasizes that financial security improves academic engagement, while financial hardship restricts access to critical academic resources.

Interestingly, the study reveals that moderate financial concern is associated with better academic performance. This suggests that manageable levels of financial pressure may serve as a motivating factor, enhancing focus and effort. This finding supports the concept of *eustress*, where moderate stress can positively influence performance (Stuart et al., 2014). However, when financial stress becomes excessive, particularly when it results in emotional exhaustion or restricts access to academic opportunities, it has a detrimental effect on performance, consistent with the distress component of Stress and Coping Theory.

Social and behavioral aspects of relative income perception also play an important role. The finding that students who disengage from consumer trends and social comparison exhibit lower academic performance suggests that social integration and peer alignment may contribute positively to academic outcomes. From the perspective of the Relative Income Hypothesis, such disengagement may reflect feelings of relative deprivation, which can reduce motivation and academic engagement. At the same time, excessive peer comparison may increase financial pressure and stress (Gulati, 2017; Oyeboade, 2017), indicating a complex relationship between social comparison and academic performance.

Coping strategies provide further insight into how students manage financial stress and its academic implications. The results show a strong reliance on social support, particularly through friends and family, reflecting the use of informal, emotion-focused coping mechanisms. According to Stress and Coping Theory, such strategies help reduce psychological distress and enhance individuals' ability to function effectively under stress. The finding that a majority of students reported improvements in academic performance after adopting coping strategies highlights the buffering role of coping in mitigating the negative effects of financial stress (Misra & Castillo, 2004).

However, the high prevalence of avoidant coping strategies, such as ignoring financial problems, indicates that many students rely on less effective approaches. While avoidance may provide temporary emotional relief, it does not address underlying financial challenges and is often associated with poorer long-term outcomes (Heckman, 2014). This explains the mixed effectiveness of coping strategies reported in the study, suggesting that not all coping mechanisms equally contribute to improved academic performance.

Importantly, the findings demonstrate that coping strategies play a moderating role in the relationship between financial stress and academic performance. Adaptive coping strategies, particularly social support, enhance academic outcomes by reducing emotional strain and improving psychological well-being. In contrast, maladaptive strategies, such as avoidance, weaken this relationship by failing to address the root causes of financial stress. This supports the central proposition of Stress and Coping Theory that the effectiveness of coping responses determines whether stress leads to positive or negative outcomes.

Overall, the results indicate that the relationship between financial stress and academic performance is multidimensional, operating through structural, psychological, and behavioral pathways. Financial resources influence access to academic opportunities, psychological responses shape how stress is experienced, and coping strategies determine how effectively stress is managed. By integrating the Relative Income Hypothesis and Stress and Coping Theory, this study demonstrates that financial stress does not operate in isolation but is shaped by social comparison, emotional resilience, and coping behavior. Financial support mechanisms reduce stress exposure, while effective coping strategies mitigate its impact; conversely, financial constraints and maladaptive coping amplify stress and hinder academic success.

Conclusion and Recommendation

This study provides empirical evidence that financial stress significantly influences the academic performance of female undergraduate students in Southeast Nigeria, operating through structural, psychological, and behavioral pathways. Consistent with existing literature (Alisia et al., 2018; Gao et al., 2020), the findings confirm that financial stress remains pervasive among students and is often compounded by academic and social pressures.

The results show that access to financial support mechanisms, such as student loans, improves academic outcomes, as students with such support demonstrate higher odds of academic success. This supports prior findings (Joo et al., 2008; Misra & Castillo, 2004) that financial stability enhances students' ability to concentrate and engage effectively in their studies. Conversely, financial constraints, particularly those limiting participation in educational opportunities, significantly reduce academic performance, reinforcing earlier evidence that resource deprivation restricts academic engagement (Gao et al., 2020; Sonya et al., 2016).

In relation to the Relative Income Hypothesis, the study finds that direct income comparisons and lifestyle pressures do not significantly determine academic performance. Rather, their effects are indirect, operating through psychological processes such as perceived financial inadequacy and emotional strain. This aligns with Clark et al. (2008), who argue that relative deprivation affects outcomes primarily through subjective perception rather than objective income differences. Furthermore, consistent with Stress and Coping Theory (Lazarus & Folkman, 1984), the findings demonstrate that emotional responses and coping strategies are central in determining how financial stress affects academic outcomes. Students who are not emotionally overwhelmed by their financial situation perform better academically, while excessive financial stress—particularly when it leads to emotional exhaustion or restricted access to academic resources—negatively affects performance. The study also finds evidence of *eustress*, where moderate financial concern enhances motivation and academic engagement (Stuart et al., 2014).

Coping strategies play a critical moderating role in this relationship. The predominance of social support (friends and family) reflects reliance on emotion-focused coping mechanisms, which help buffer the psychological effects of financial stress. This is consistent with findings by Misra and Castillo (2004), who highlight the importance of social support in academic adjustment. However, the high use of avoidant coping strategies suggests limitations in effectiveness, as such strategies provide only temporary relief and do not address underlying financial challenges (Heckman, 2014).

Overall, this study contributes to the literature by demonstrating that financial stress affects academic performance not only through financial constraints but also through students' perceptions, emotional responses, and coping behaviors. By integrating the Relative Income Hypothesis and Stress and Coping Theory, the study shows that financial stress is multidimensional and that effective coping and financial support are essential for improving academic outcomes.

In conclusion, addressing financial stress among female undergraduate students requires a holistic approach that combines financial support, psychological resilience, and effective coping strategies. Without such interventions, financial stress will continue to undermine academic performance and limit students' full potential.

Recommendation

- i.) Strengthen Financial Support Systems:** Universities should expand targeted financial aid programs, including scholarships, grants, and emergency funds, to reduce students' financial burden. The findings show that access to financial support improves academic performance, suggesting that enhanced funding mechanisms—particularly for financially vulnerable female students—can significantly improve academic outcomes and reduce stress-related barriers (Alisia et al., 2018; Sonya et al., 2016).
- ii.) Promote Financial Literacy and Structured Support Services:** Institutions should provide financial literacy programs and counseling services focused on budgeting, financial planning, and debt management. In addition, structured peer support groups and accessible mental health services should be established to strengthen students' coping capacity. This will enhance financial self-efficacy, reduce emotional stress, and improve academic performance, consistent with Stress and Coping Theory (Lazarus & Folkman, 1984; Rachel et al., 2024).
- iii.) Enhance Access to Academic and Income Opportunities:** Universities should support students' participation in academic enrichment activities by providing funding for workshops, conferences, and learning materials. Additionally, institutions should facilitate flexible part-time employment opportunities that do not interfere with academic commitments. These measures will improve access to resources, reduce financial stress, and enhance students' academic engagement and performance (Stuart et al., 2014; White, 2020).

Limitations and Suggestions for Future Research

This study adopted a cross-sectional research design, capturing data at a single point in time; consequently, it limits the ability to establish causal relationships between financial stress and academic performance. In addition, although the target sample size was 500 respondents, only 362 valid responses were obtained from the online survey. This shortfall may affect the generalizability of the findings to all female undergraduate students in South-East Nigeria and other regions. Furthermore, the study relied on self-reported data, which is inherently susceptible to response bias, social desirability effects, and possible inaccuracies in participants' disclosures. In light of these limitations, future research should adopt longitudinal or experimental designs to better establish causality. It is also recommended that subsequent studies incorporate additional variables such as family support systems, income levels, and engagement in personal entrepreneurial activities, as these factors may significantly influence financial stress and academic outcomes.

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