Peer Relationships, Social Support, and School Climate on Educational Outcomes of Secondary School Learners in Epe, Lagos State

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Abstract

Academic performance among secondary school learners is influenced by multiple psychosocial and environmental factors. Peer relationships, social support, and school climate are critical determinants of educational outcomes, yet their relative and joint contributions remain underexplored in the Nigerian context, particularly in Epe, Lagos State. Understanding these factors can inform interventions aimed at improving student achievement and overall learning experiences. The study adopted a quantitative survey design, targeting students from public secondary schools in Epe. A multi-stage sampling procedure was employed to select 198 students from six randomly chosen schools. Standardised instruments were used, including the Peer Relationship Scale, Multidimensional Scale of Perceived Social Support, and School Climate Inventory, alongside self-reported academic outcomes corroborated with teachers' records. Data were analysed using Pearson's correlation and multiple regression to examine relationships, joint contributions, and relative contributions of the independent variables to educational outcomes. Findings revealed that all three predictors were positively associated with educational outcomes. Peer relationships showed a moderate positive correlation with academic performance (r = .42), social support exhibited a moderate correlation (r = .38), and school climate had the strongest correlation (r = .46). Collectively, the three variables jointly explained 39% of the variance in educational outcomes. Regarding relative contributions, school climate emerged as the strongest predictor, followed by peer relationships, and then social support, indicating that teacher support and perceived safety have the greatest unique impact on student achievement. The study concludes that educational outcomes are significantly shaped by both relational and environmental factors. Stakeholders should prioritise enhancing school climate, promoting positive peer interactions, and strengthening social support networks. Integrated interventions targeting these areas are recommended to maximise student achievement. Future research could investigate additional contextual factors such as socio-economic status and teacher-student relationships.

Keywords: Peer relationships, Social support, School climate, Educational outcomes

Introduction

Academic achievement has long been recognised as a crucial determinant of future socioeconomic mobility, personal well-being, and national development. Globally, scholars have emphasised that educational outcomes are influenced by a complex interplay of psychological,

familial, and institutional factors rather than innate ability alone (Sirin, 2005; Yang et al., 2020). For secondary school learners, this interplay often determines whether they remain resilient and engaged in their studies or experience setbacks that hinder progression. Research consistently highlights the relevance of contextual influences such as socio-economic status, peer interactions, and school climate in shaping learners' motivation, behaviour, and persistence (Kaya and Erdem, 2021; Li et al., 2021). Against this backdrop, examining how relational and environmental factors intersect to impact education becomes particularly critical in developing contexts such as Nigeria.

Among these contextual influences, the quality of peer relationships stands out as a significant predictor of students' academic trajectories. Positive peer relationships, marked by support, encouragement, and shared aspirations, foster collaboration and resilience in the learning process (Wentzel, 2017; Aremu and Akinyemi, 2019). Conversely, conflictual or negative peer associations often facilitate maladaptive behaviours, ranging from truancy to substance use, which compromise educational achievement (Quadri et al., 2025). In the Nigerian context, where adolescents face mounting socio-economic pressures, peer groups often serve as a primary reference point for emotional and academic decision-making (Akinyemi et al., 2018). The dual role of peers as both protective and risk factors makes it vital to investigate their nuanced impact on secondary school learners' outcomes.

Another factor that substantially influences educational outcomes is perceived social support, which refers to the assistance and reassurance students receive from friends, family, and wider networks. Strong social support has been linked with higher resilience, better coping strategies, and improved academic performance across diverse contexts (Durlak et al., 2011; Li et al., 2021). In Nigeria, studies indicate that both peer and family support buffer the negative effects of low socio-economic status and academic stress (Akinyemi et al., 2018). Similarly, Omopo (2025) found that social support moderated the relationship between childhood trauma and adolescent mental health, highlighting its broader psychological significance. International evidence equally affirms that family support plays a stabilising role, while peer support enhances school engagement and motivation (Martins et al., 2019; Powers et al., 2015). Understanding the balance between family and peer support is particularly important for adolescents navigating secondary education in Lagos State.

Beyond family and peer dynamics, the school climate serves as a structural condition that shapes learners' perceptions and achievements. A positive school climate, reflected in teacher support, fairness, and a safe learning environment, contributes significantly to students' motivation and sense of belonging (Yang et al., 2020). Conversely, environments marked by hostility, neglect, or insecurity undermine concentration, emotional regulation, and overall learning (Fehintola and Akinyemi, 2021). Nigerian studies have underscored the importance of teacher encouragement and safe classroom interactions as drivers of educational resilience (Fehintola and Akinyemi, 2022). Internationally, school climate is increasingly viewed as a protective factor that mediates the impact of socio-economic disadvantage and peer-related challenges (Kaya and Erdem, 2021). Thus, examining teacher support and perceptions of safety in Lagos secondary schools offers a critical institutional dimension to understanding educational outcomes.

In Nigeria, particularly in urban centres like Lagos, adolescents face the compounded pressures of peer expectations, parental economic struggles, and overcrowded school systems (Adebayo-Oke et al., 2021; Ibrahim et al., 2024). Recent studies in Ibadan and Oyo State have shown how adverse childhood experiences, peer pressure, and weak institutional structures interact to influence maladaptive behaviours and academic disengagement (Omopo, 2023; Quadri et al., 2025). While much is known about the role of socio-economic status in education (Akinyemi et al., 2018; Sirin, 2005), relatively fewer studies have simultaneously considered peer relationships, social support, and school climate as interdependent predictors of academic outcomes. International evidence supports their joint contribution, but there remains a contextual gap in secondary schools across Nigeria, particularly in Lagos where socio-cultural dynamics differ from other regions (Li et al., 2021; Kaya and Erdem, 2021).

This study, therefore, seeks to fill this gap by examining how the quality of peer relationships, perceived social support from friends and family, and school climate (teacher support and safety) predict educational outcomes among secondary school learners in Epe, Lagos State. By integrating these psychosocial and institutional variables, the research aims to advance understanding of the relational and environmental factors that shape academic performance in a metropolitan Nigerian context. The findings are expected to provide evidence-based insights for educators, counsellors, and policymakers to design interventions that strengthen peer relations, foster social support, and improve school climate for enhanced educational success.

Purpose of the Study

The purpose of this study is to examine how peer relationships, perceived social support, and school climate influence the educational outcomes of secondary school learners in Epe, Lagos State. The specific objectives of the study are:

1. To investigate the relationships between peer relationships, perceived social support, school climate, and educational outcomes of secondary school learners.
2. To determine the joint contribution of peer relationships, perceived social support, and school climate to educational outcomes.
3. To ascertain the relative contributions of peer relationships, perceived social support, and school climate to educational outcomes.

Research Questions

The following research questions were raised and answered:

1. What relationships exist between peer relationships, perceived social support, school climate, and educational outcomes of secondary school learners?
2. What is the joint contribution of peer relationships, perceived social support, and school climate to educational outcomes?
3. What are the relative contributions of peer relationships, perceived social support, and school climate to educational outcomes?

Methods

The study adopted a quantitative survey research design to examine the relationships among peer relationships, social support, school climate, and educational outcomes of secondary school learners in Epe, Lagos State. The target population comprised students enrolled in public secondary schools within the area. A multi-stage sampling procedure was employed to ensure representativeness across schools. At the first stage, six public secondary schools were randomly selected from the official register of government-owned schools in Epe. At the second stage, intact classes were stratified according to grade levels, and simple random sampling was applied to select students proportionately from each stratum. This process yielded a sample size of 198

students, which was deemed adequate for statistical analyses. The use of multi-stage sampling was appropriate for capturing variations among schools and reducing sampling bias within the population.

Standardised instruments with established psychometric properties were utilised in data collection. The quality of peer relationships was measured using the Peer Relationship Scale developed by Bukowski, Hoza, and Boivin (1994), while perceived social support was assessed with the Multidimensional Scale of Perceived Social Support created by Zimet et al. (1988). The School Climate Inventory developed by Brand et al. (2003) was adopted to assess teacher support and perceived safety within the school environment. Educational outcomes were measured through a brief achievement test. All instruments were adapted and pre-tested among a similar group of learners outside the study area to ensure contextual suitability, with Cronbach's alpha coefficients above 0.70. Ethical considerations were adhered to by obtaining permission from school authorities, securing informed consent from participants, and ensuring confidentiality. Data analysis involved descriptive statistics, Pearson's correlation, and multiple regression to test the relationships, joint contribution, and relative contributions of the independent variables to educational outcomes.

Result and Discussions

Demographic Representation of Participants

Table 1 presents the demographic profile of the 198 secondary school students who participated in the study. The variables included gender, age, and class level, as these characteristics were considered relevant to understanding the distribution of respondents.

Table 1: **Demographic Characteristics of Participants**

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	96	48.5
	Female	102	51.5
Age (years)	12–14	58	29.3

	15–17	97	49.0
	18 and above	43	21.7
Class Level	JSS2	42	21.2
	JSS3	38	19.2
	SS1	48	24.2
	SS2	42	21.2
	SS3	28	14.1

The demographic distribution in Table 1 shows a relatively balanced gender representation, with slightly more females (51.5%) than males (48.5%). In terms of age, the largest group of participants fell within the 15–17 years category (49.0%), which is consistent with the expected age range of students in senior secondary classes. Younger adolescents aged 12–14 years made up 29.3% of the sample, while those aged 18 years and above accounted for 21.7%. Regarding class level, SS1 had the highest proportion of students (24.2%), followed by JSS2 and SS2 (21.2% each). The lowest representation was from SS3 students (14.1%), reflecting possible variations in enrolment and examination preparation at this level. This demographic spread demonstrates that the sample is diverse and representative of secondary school learners in Epe, Lagos State.

Research Question 1: Relationship among Peer Relationships, Social Support, School Climate, and Educational Outcomes

Table 2: **Pearson Correlation Coefficients among Study Variables**

Variables	1	2	3	4
1. Peer Relationships	1			
2. Social Support	.31**	1		
3. School Climate	.28**	.35**	1	
4. Educational Outcomes	.42**	.38**	.46**	1

Table 2 presents the correlation coefficients among peer relationships, social support, school climate, and educational outcomes. The results indicate that all three independent variables were positively and significantly correlated with educational outcomes. Specifically, peer relationships demonstrated a moderate positive correlation with academic performance ($r = .42$, $p < .01$), suggesting that students with more positive peer interactions tend to achieve higher academically. Social support also showed a significant positive correlation with educational outcomes ($r = .38$, $p < .01$), indicating that support from friends and family is associated with better academic performance. Similarly, school climate was positively related to educational outcomes ($r = .46$, p

< .01), highlighting the importance of teacher support and perceived safety in enhancing student achievement. These findings suggest that all three psychosocial and environmental factors are important determinants of educational outcomes among secondary school learners.

The analysis revealed that peer relationships positively influenced educational outcomes, suggesting that learners who experience positive, supportive, and cooperative peer interactions tend to achieve higher academically. Positive peer relationships can provide motivation, academic guidance, and shared study practices that reinforce learning. Students may emulate high-achieving peers, adopt effective study habits, and gain encouragement during challenging academic tasks, which enhances their performance. These findings are consistent with Aremu and Akinyemi (2019), who reported that peer influence positively affects academic motivation and achievement among secondary school students in Ibadan. Wentzel (2017) also highlighted that peers act as sources of social and emotional support, which facilitates engagement and performance at school. Conversely, conflictual or unsupportive peer interactions may reduce focus and engagement, leading to poorer academic outcomes, further explaining why quality of peer relationships significantly predicts educational achievement.

Perceived social support was found to have a positive effect on educational outcomes, indicating that learners who perceive higher levels of support from family and friends tend to perform better academically. Supportive parents and peers provide emotional reassurance, guidance, and practical help, such as assistance with homework or preparation for exams, which can alleviate stress and enhance concentration. The findings align with Akinyemi et al. (2018) and Li, Xu, and Chen (2021), who reported that social support promotes academic resilience, self-efficacy, and engagement, thereby improving achievement. Social support also buffers the negative effects of stress and school-related challenges, allowing learners to focus on their studies. This suggests that interventions aimed at strengthening students' social support networks could have meaningful impacts on educational performance.

School climate emerged as an important determinant of educational outcomes, indicating that students who perceive their schools as safe, supportive, and well-managed tend to achieve higher academically. A positive school climate, characterised by teacher support, fair discipline, and physical and emotional safety, fosters student motivation, engagement, and confidence. When

learners feel secure and supported, they are more likely to participate actively in class, persist through difficulties, and adopt effective learning strategies. Fehintola and Akinyemi (2021) reported similar findings, showing that a supportive school environment significantly enhances attention regulation and academic performance. Additionally, Durlak et al. (2011) emphasised that school-based social-emotional interventions are most effective in climates where students perceive high teacher support and safety. These results underscore the importance of a conducive school environment in shaping learners' academic outcomes.

Research Question 2: Joint Contribution of Peer Relationships, Social Support, and School Climate to Educational Outcomes

Table 3: Multiple Regression Analysis for Joint Contribution of Independent Variables to Educational Outcomes (N = 198)

Predictor Variables	B	SE B	β	t	p
Peer Relationships	0.28	0.07	0.28	4.00	<.001
Social Support	0.19	0.08	0.21	2.38	.018
School Climate	0.32	0.07	0.33	4.57	<.001
Model Summary					
R²	0.39				
F	41.28				<.001

Table 3 shows the results of the multiple regression analysis examining the joint contribution of peer relationships, social support, and school climate to educational outcomes. The model was statistically significant, $F(3,194) = 41.28$, $p < .001$, and explained 39% of the variance in students' academic performance ($R^2 = .39$). This indicates that, collectively, the three predictors meaningfully account for nearly two-fifths of the differences in educational outcomes among secondary school learners. The joint effect demonstrates the importance of considering both relational and environmental factors together, rather than in isolation, to understand student achievement.

The analysis revealed that peer relationships, social support, and school climate jointly contributed to the educational outcomes of secondary school learners. This indicates that when these factors are considered together, they collectively account for a substantial portion of the differences in students' academic performance. The joint contribution may be explained by the

interconnected nature of relational and environmental influences on learning. For example, supportive peers can enhance engagement, but their positive effects are strengthened when students also perceive strong social support from family and a safe, encouraging school climate. Similarly, school climate can amplify the benefits of both peer and family support by providing a structured and motivating environment in which learners feel secure and valued.

The combination of these variables highlights that educational outcomes are rarely determined by a single factor; instead, they are shaped by the interplay of multiple psychosocial and environmental influences. This finding aligns with prior research, which suggests that holistic approaches addressing both interpersonal relationships and institutional contexts are more effective in promoting academic success (Akinyemi et al., 2018; Aremu & Akinyemi, 2019; Fehintola & Akinyemi, 2021). The result underscores the importance of integrated interventions that strengthen peer interactions, enhance social support networks, and foster a positive school climate, as these elements collectively create conditions that support students' learning and achievement.

Research Question 3: Relative Contributions of Peer Relationships, Social Support, and School Climate to Educational Outcomes

Table 4: **Standardised Regression Coefficients for Relative Contributions**

Predictor Variables	β	t	p	Interpretation
Peer Relationships	0.28	4.00	<.001	Moderate positive contribution
Social Support	0.21	2.38	.018	Small positive contribution
School Climate	0.33	4.57	<.001	Strongest positive contribution

Table 4 presents the relative contributions of peer relationships, social support, and school climate to educational outcomes. School climate emerged as the strongest predictor (β = .33, p < .001), indicating that teacher support and perceived safety have the greatest unique impact on academic performance. Peer relationships contributed moderately (β = .28, p < .001), showing that positive interactions among students are important but slightly less influential than school climate. Social support, while significant (β = .21, p = .018), contributed the least among the three variables, suggesting that support from friends and family enhances achievement but is not as powerful as classroom and peer contexts. These results underscore the need for interventions

that strengthen the school environment while also fostering positive peer relations and supportive networks.

School climate emerged as the strongest predictor of educational outcomes among secondary school learners. This highlights that teacher support, fairness, classroom management, and perceived safety within the school environment have the most substantial impact on students' academic performance. A positive school climate fosters engagement, motivation, and confidence, enabling learners to participate actively, persist through academic challenges, and adopt effective learning strategies. These findings are consistent with Fehintola and Akinyemi (2021), who reported that a supportive school environment enhances attention regulation and academic performance among secondary school students. Internationally, Durlak et al. (2011) also emphasised that school-based social-emotional interventions are most effective in climates characterised by high teacher support and perceived safety. The strong influence of school climate underscores the centrality of institutional and environmental factors in shaping educational outcomes.

Peer relationships contributed moderately to educational outcomes, indicating that positive interactions among students play an important but slightly less influential role compared with school climate. Learners who maintain supportive, cooperative, and motivating peer connections are more likely to engage in academic discussions, adopt effective study habits, and gain emotional encouragement from classmates. These outcomes align with Aremu and Akinyemi (2019), who observed that peer influence significantly shapes academic motivation and achievement among secondary school students in Ibadan. Wentzel (2017) further highlighted that peers provide emotional and social support that enhances school engagement, suggesting that the quality of peer interactions can reinforce learning experiences and indirectly support academic success.

Perceived social support, while significant, contributed the least among the three independent variables. Support from family and friends provides emotional reassurance, guidance, and practical assistance such as help with homework or exam preparation, which can reduce stress and improve focus. Akinyemi et al. (2018) reported that social support enhances academic resilience and self-efficacy, promoting higher achievement among Nigerian learners. Li, Xu, and

Chen (2021) also emphasised that supportive social networks improve engagement and motivation, particularly during periods of academic stress. Although social support is influential, its effect may be less direct than school climate or peer relationships, as it often interacts with the immediate school and peer environment to shape learners' academic experiences.

Conclusion

The study examined the influence of peer relationships, social support, and school climate on the educational outcomes of secondary school learners in Epe, Lagos State. Findings revealed that all three factors were positively associated with academic performance, with school climate emerging as the strongest predictor, followed by peer relationships and social support. The results highlight that both psychosocial and environmental factors contribute significantly to learners' achievement, and their combined influence explains a substantial proportion of differences in educational outcomes. Overall, the study underscores the importance of fostering supportive school environments, encouraging positive peer interactions, and enhancing students' social support networks to promote academic success.

Implications to Stakeholders

The findings have several practical implications for key stakeholders in education:

1. **School Administrators and Policymakers**: The strong influence of school climate suggests the need to prioritise policies that enhance teacher support, safety, and overall school management. Creating a positive learning environment can improve student engagement and achievement.
2. **Teachers**: Teachers play a central role in shaping school climate; therefore, professional development programmes should emphasise strategies for providing emotional support, fair discipline, and creating a safe and inclusive classroom environment.
3. **Parents and Guardians**: Although social support had the least relative contribution, it remains significant. Parents should provide emotional encouragement, monitor academic progress, and support positive study habits at home.

4. **Students**: Positive peer interactions enhance motivation and engagement. Students should be encouraged to cultivate cooperative and supportive relationships that reinforce learning and academic resilience.

Recommendations

Based on the findings, the following recommendations are proposed:

1. **Enhancing School Climate**: Schools should implement initiatives that promote teacher support, student safety, and positive discipline practices. This may include mentorship programmes, classroom management training, and anti-bullying campaigns.
2. **Promoting Positive Peer Relationships**: Schools can facilitate peer-led academic clubs, study groups, and collaborative learning activities to strengthen constructive peer interactions.
3. **Strengthening Social Support Networks**: Parents and community stakeholders should be encouraged to participate in learners' academic lives through regular monitoring, guidance, and emotional support, particularly during examinations or stressful periods.
4. **Integrated Interventions**: Educational interventions should adopt a holistic approach by addressing school climate, peer relationships, and social support simultaneously, as their combined effect significantly influences academic outcomes.
5. **Future Research**: Further studies could explore additional contextual factors, such as socio-economic status, teacher-student relationships, and school resources, to provide a more comprehensive understanding of determinants of educational achievement.

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