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The Prevalence of Single Parenthood and Its Impacts On Students' Academic Performance in Computer Science

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Abstract

For a long time, the nuclear family model has been seen as the fundamental social unit for raising kids. Today, having a single parent is a prevalent family structure. It has been questioned whether this change in family dynamics would have an impact on various aspects of children's lives, including their academic performance. Therefore, the purpose of this study was to investigate the issue of single parenthood's prevalence and how it affects students' academic performance in computer science. In order to gather data from a representative sample of the targeted demographic, the research used a descriptive survey design technique. The study's sample consisted of 200 respondents who were drawn at random from ten senior secondary schools, including 150 students and 50 teachers, for a total of 200 respondents. The study was directed by four research questions and four research hypotheses. A self-structured questionnaire that the researcher developed based on certain perceived variables of students and teachers, regarding the effect of single parenting on the academic achievement of computer science; was used to collect data. The correct statistical analysis was performed on the gathered data. The descriptive statistical methods of mean and standard deviation were used to assess the four (4) research questions that were posed for the study. ANOVA and Pearson Product Moment Correlation (PPMC) were used to test hypotheses 2 and 3 respectively, while a t-test of the paired sample was utilized to test for hypothesis 4 using SPSS Version 23 and an 0.05 threshold. The findings of this study revealed a considerable academic success gap between children raised in dual-parent families and those raised in single-parent families, with the former group significantly outperforming the latter. The results also demonstrated that several perceived challenges faced by single-parent students significantly affect their academic performance as computer science students. Based on the findings, it was recommended that functional guidance and counseling units should be created in all schools, and single parents should receive periodic training in time management; so that they can assist their children with their schoolwork and provide them with academic guidance.

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Single parents should also be urged to regularly attend PTA meetings at their kids' schools to develop stronger relationships with the students and teachers, which will ultimately improve their kids' performance in examinations.

Keywords: Prevalence, Single Parenthood, Academic Performance, Computer Science,

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Introduction

There have been widespread shifts in the traditional family unit over the last several decades as a consequence of changes in economics, culture, and population distribution. One notable shift is the increasing prevalence of single-parent households, in which a single adult is responsible for all aspects of childrearing and financial support. According to Whiting (2013), single parenting occurs when only one of the parents is actively involved in raising the kid. When a man or a woman has children outside of marriage, they may be considered single parents. According to (Oyediran, 2019), what was once an intolerable norm is on the rise. A mother or father and their children make up the so-called "nuclear family," however nowadays households with just one parent are more common than ever. Compared to two-parent families with two incomes, single-parent households with one income are in a much worse situation (Abudu & Fuseini, 2013). Economically, single moms do worse than divorced mothers, according to a recent study (Salami, 2015). Researchers, policymakers, and teachers are all devoting more attention to this problem because of its potential impact on children's growth, particularly in the classroom (Asiabaka, 2010, Nwachukwu, 2011). Nigeria, a country with a diverse cultural history and a wide range of family structures, has come under scrutiny and criticism for its high rate of single-parent households. There are several reasons why parents raise their children alone, including divorce, separation, the loss of a partner, or the choice to do so. A comprehensive study of the history and prevalence of single parenting in Nigeria is necessary for investigating the possible consequences of single parenting on the academic performance of computer science students. The purpose of this research is to examine the impact of single parenting on the academic performance of computer science undergraduates.

One biological parent is responsible for raising a child without the other (single parenting) (Whiting, 2013; Salami, 2015). Single-parent households may be more common in Nigeria because of the country's socioeconomic challenges, which are shared by many developing nations. Economic disparity, inadequate healthcare and education, and a lack of employment opportunities all contribute to family instability. One parent may be forced into single parenting when the other leaves the home to pursue professional opportunities in a city or overseas (Whiting, 2013). Cultural and social norms in Nigeria have an impact on the composition of families. In the past, families relied heavily on grandparents, aunts, uncles, and cousins to help raise their children. However, due to changes in society, urbanisation, and globalisation, these norms have evolved (Oyediran, 2019). Lone parents' opportunities for connection and support may be hampered by prejudice and stigma. How commonplace single-parent households are in Nigeria may be traced back to the country's matrimonial, divorce, and child custody laws. Marriage and family laws of different cultures and religions can have an effect on parents' rights and responsibilities. To fully appreciate the challenges faced by single parents, one must have a firm grasp of these legal concerns.

Gender roles and women's empowerment are two examples of shifting gender dynamics in Nigeria. Although women have made strides, there are still significant areas where they face disadvantages. Women often take on the role of main carer, which may be challenging for single moms who also wish to further their education or advance in their careers. In light of these concerns, it is essential to investigate the impact of single parenting on students' ability to succeed in computer science courses. In light of the rapid expansion of the computer science industry, this research aims to shed light on the challenges and possibilities faced by

one-parent families in Nigeria while sending their children to college or looking for work in the sector.

Computer science is a broad and rapidly developing topic that includes the study of computation, algorithms, data structures, programming languages, software engineering, artificial intelligence, and many other facets of computing technology. It provides the foundation for the development of advanced computing systems, applications, and other technologies that have revolutionised contemporary life (Olojo, 2021). Through their work in creating, analysing, and implementing complex systems and applications, computer scientists contribute to advancements in many fields, including communication, healthcare, finance, and the entertainment industries. Having a strong academic background is crucial in the field of computer science for a variety of reasons (Olojo & Faboya, 2023). For instance, the need for trained computer scientists is ever-present because of the growing significance of technology in everyday life. Successful academic performance is a strong indicator of future success in the job and is thus highly sought after by employers.

In addition, successful academic achievement often coincides with a deep understanding of both the theoretical concepts and practical applications of computer science. Olojo and Faboya (2023) argue that researchers and innovators need a solid basis in order to push the boundaries and develop game-changing inventions. Teaching students to think logically and solve problems is a priority in the field of computer science (Alake & Olojo, 2020). A student's grades are an indicator of their problem-solving skills and their capacity to analyse complex situations, identify key elements, and develop effective approaches. Academically gifted students may be given the chance to participate in research projects, network with professionals in their field, and get valuable work experience via internships. Strong academic records grounded on computer science performance are essential for students aiming for higher degrees or research-based careers. Olojo (2021) argued that computer science is crucial for addressing global problems including healthcare and climate change. Students who excel in the classroom are more equipped to make contributions to social good, which may be acknowledged by professional and academic societies. Being successful in school requires dedication, time management, and self-control. These characteristics aid in professional and educational achievement, and are valuable in and of themselves.

Understanding the potential consequences of single parenting on academic performance in computer science is critical in the context of this study issue for resolving the difficulties experienced by students in this field. By examining this connection, it is hoped that the research would advance knowledge of how outside influences, including family structure, might affect academic achievements and offer suggestions for new assistance methods for students from different backgrounds.

The purpose of the study is to look into the prevalence of single parenting and the connection between it and the academic success of students seeking computer science degrees. The study specifically aims to respond to the following query: What effects does the existence of single parenting have on a student's academic performance and general success in the field of computer science? Insights into the various obstacles and opportunities that students from single-parent households may run into while pursuing education and careers in computer science might be gained by carefully considering this study problem. This investigation is crucial for gaining a thorough understanding of the variables that affect academic performance gaps in this area and for identifying approaches that can help students overcome any challenge brought on by their family structure.

The main goal of this study was to investigate the prevalence of single parenthood and its impacts on students' academic performance in computer science. Specifically, the study was to:

1. investigate the relationship between single parenting and academic achievement of Computer Science students;
2. examine the possible mediating variables that might affect the association between single parenting and academic excellence of Computer Science students;
3. evaluate how single-parent students in Computer Science perceive and feel the barriers to success and safety nets that affect their academic progress;
4. determine whether students from dual-parent households and those from a single parent perform differently academically in the field of Computer Science; and
5. proffer practical suggestions for academic institutions and policymakers to improve the academic performance of single-parent students seeking degrees in Computer Science.

Research Questions

The study was guided by the following research questions:

1. Is there a relationship between students' academic success in Computer Science and their position as being raised by single parents?
2. What are the mitigating factors that might propel the effect of single parenting on academic success of students in Computer Science, such as parental involvement, family support, or socioeconomic status?
3. What are the perceived difficulties faced by single-parent students in Computer Science, and what kinds of supports are needed in addressing these difficulties?
4. In the field of Computer Science, are there notable disparities between students raised in single-parent households and those raised in dual-parents households in terms of academic achievement as evaluated by grades or other indicators?
5. What actionable advice can be developed in light of the findings to help single-parent students majoring in Computer Science overcome obstacles and become successful academically?

Research Hypotheses

The following research hypotheses were formulated for the study.

1. There is no significant relationship between students' academic success in Computer Science and their position as being raised by single parents.
2. There is no significant effect of mitigating factors of single parenting on academic success of students in Computer Science, such as parental involvement, family support, or socioeconomic status.
3. There is no significant effect of perceived difficulties faced by single-parent students on the academic excellence of students in Computer Science.
4. There is no significant difference between the academic achievement of students raised in single-parent households and those raised in dual-parents households in the field of Computer Science.

Literature Review

According to Fan and Chen (2016), parental engagement encompasses a wide range of parental actions, including but not limited to: parental expectations for academic achievement, contact with children, participation in extracurricular activities, communication

with instructors, enforcement of regulations, and so on. Epstein (2010) lists parenting, communication, volunteering, home study, decision making, and community service as examples of engagement. As examples of home-based parental participation, Shute, Hansen, Underwood, and Razzouk (2011) mention talking about school, checking homework, setting goals and expectations, reading together as a family, keeping an eye on kids, and enforcing regulations. They also mentioned activities that parents may do to become involved at school, such as talking to teachers, joining PTOs, and helping out with field trips.

Boonk (2018) argues that the link between parental engagement and academic success might vary depending on the kind of parental participation that the research emphasises. He argues that research shows mixed results on the effects of parental involvement on students' performance in the classroom. After evaluating the research on the issue, Boonk (2018) concluded that although there is a connection between parental involvement and academic success, it is not as robust as previously assumed.

There has been a lot of research done on how being a single parent affects a child's performance in school. For instance, Oyediran's (2019) research on the effects of single parenting on students' academic performance in the Afijio Local Government Area of Oyo State found that parents with only one income were less likely to be involved in their children's schoolwork. In a similar vein, Yuko (2017) found that academic performance was worse for children from single-parent households compared to those from two-parent households in her research entitled Educational Achievement of Children from Single-Mother and Single-Father homes: The Case of Japan. Cahit and Metin (2020) performed research on the effect of parental engagement on kids' academic achievement throughout the pre-K-12 spectrum by using a meta-analysis approach to examine home-based and school-based parental participation techniques. A small but favourable correlation between parental involvement and academic success was discovered. They also found that parental expectations had the greatest impact on academic success, whereas parental control had neither a positive nor a significant effect.

This is in line with the findings of research on the effects of single parenting on children's academic performance by Simon, Felix, and Linda (2016): Single-parent households had a larger percentage of children who experience periodic sadness and mental instability, according to a case study conducted at Amamoma Presbyterian Junior High School. They also found that single parents often do not provide the necessary educational resources to their children because of the lack of constant parental supervision and monitoring. Researchers Salami and Alawode found that in the Ejigbo Local Government Area of Osun State, students from intact families had significantly higher academic achievement than those from single parenting, which has important implications for counselling. According to Anyakoha (2016), who conducted a study on single parenting as a correlation of academic performance of students in Unity Secondary School in South East Geo-Political Zone in Nigeria, single parents support and help their children with their education despite their financial situation. The research also demonstrates that the educational level of the student's single parent has no effect on the student's academic achievement. In the context of this study, there seems to be no prior research on the effects of single parenting on students' performance in computer science. This research aims to better understand how having a single parent affects computer science students' ability to succeed in school.

Theoretical Framework

Academic achievement is one of many facets of a child's development that might be impacted by single parenting. Numerous psychological and sociological theories can offer insight on how single parenting may affect academic performance, even though no one overarching theory can explain all the mechanisms. Therefore, the following theories are the foundation of this study: **Family Stress Theory**: In the 1940s and 1950s, sociologist Reuben Hill established the Family Stress Theory, sometimes known as the ABCX Model of Family Stress. In order to learn more about how families respond to stresses and crises, Hill conducted research that looked at factors including the nature of the stressor, the family's resources and coping mechanisms, and the family's perspective of the stressor. Important aspects of family life, including as parenting and child development, may be improved via a better knowledge of how stresses influence families and how they react to obstacles made possible by his research. The hypothesis states that single parents are more likely to feel stress due to financial difficulties, a lack of social support, and the burden of additional obligations. A child's academic performance might be negatively impacted if the parents' ability to parent and the family's overall environment are negatively impacted by stress. A child's ability to focus and succeed in school might be negatively impacted if the parents' parenting skills, emotional availability, and discipline are all compromised due to stress.

Social Learning Theory: Albert Bandura is commonly associated with the development of the Social Learning Theory in the 1960s. Albert Bandura proposed this theory to explain how we pick up information about the world around us via observation. He used the Babo doll in his research to demonstrate the effectiveness of observational learning and the role that modelling plays in shaping behaviour. The Social Learning Theory has far-reaching effects in fields including psychology, education, and communication because of its focus on the interplay between social interactions and cognitive processes in the learning process. The social learning hypothesis states that children learn via seeing and imitating their carers. If a single parent is having trouble with school or doesn't have much time to dedicate to their kid's education, the youngster may not develop healthy study habits or a passion for studying. Single-parent households often lack the social role models necessary to foster positive learning behaviours and academic success.

Resource Deprivation Model: Supporters of the Resource Deprivation Model argue that, on average, one-parent families have less resources, including time and money, than two-parent families. Students may have reduced access to resources like books, extracurriculars, tutoring, and more as a result of budget cuts. A child's educational prospects and level of academic achievement may be affected by several factors.

Methodology

The research used a descriptive survey approach. Because it allows information to be acquired from a representative sample of a targeted population to depict situations as they are, a descriptive survey design was utilized. All Senior Secondary School students in Ikere Local Government Area of Ekiti State during the academic year 2022–2023 made up the target group for this study. Students from both public and private secondary schools make up the population. For the investigation, a simple random sample method was used. A total of two hundred (200) respondents, comprising one hundred fifty (150) students and fifty (50) teachers from ten (10) senior secondary schools, including both public and private secondary schools, were chosen as the study's sample.

A self-structured questionnaire that the researcher developed based on some perceived variables of students and teachers on the impact of single parenting on the academic performance of Computer Science students in Ikere Local Government Area of Ekiti State is the instrument used for data collection for this survey. This is because of the type of information needed and the type of analysis that must be done. Sections A and B were the two sections that made up the questionnaire. While section B was used to gather data on the research variables, section A was used to gather information on the demographic information of the respondents.

The face and content validity of the instruments was carried out by experts in the field of Science Education and also experts in Test and Measurement in College of Education, Bamidele Olumilua University of Education, Science and Technology, Ikere. The test-retest method of assessing reliability was used to evaluate the instrument's reliability. The instrument was deemed to be reliable for the study with a reliability coefficients index of 0.82.

The collected data were put through the proper statistical analysis. In order to analyze the data and respond to the four (4) research questions posed for the study, the researcher used the descriptive statistical techniques of mean and standard deviation. Using SPSS Version 23 and the 0.05 level of significance, t-test of the paired sample was used to test for hypothesis 4, while Analysis of Variance (ANOVA) and Pearson Product Moment Correlation (PPMC) were used to test for hypotheses 2 and 3 respectively.

Results

Presentation of Respondents' Demographic Information

Table 1: Respondents' demographic characteristics

Demographic Variable	Categories	Frequency	Percentage
Gender (Teacher)	Male	21	42.0
	Female	29	58.0
	Total	**50**	**100.0**
Gender (Student)	Male	70	46.7
	Female	80	53.3
	Total	**150**	**100.0**

Source: *Researcher's field survey (2023)*

The demographic details of the respondents sampled for this investigation are shown in Table 1. According to the data, male teachers make up 21 of the respondents (42.0%), while female teachers make up the majority of the 29 respondents (58.0%). In a similar vein, 70 respondents, or 46.7% of the total, are male students, while 80 respondents which forms the majority, or 53.3%, are female students. According to this finding, female teachers and students make up the majority of responses.

Research Question 1: Is there any relationship between students' academic success in Computer Science and their position as being raised by single parents?

Table 2: Responses to the relationship between students' academic success in Computer Science and their position as being raised by single parents

S/N	Item	Yes (%)	No (%)	Mean	SD
1.	Students from single parents homes often excel academically in their study, mostly in	130 (65.0)	70 (35.0)	1.01	.115

	computer science due to their background				
2.	Students from single parents homes do face intimidation in school due to their social status	140 (70.0)	60 (30.0)	1.04	.197
3.	Students from single parents homes seldom experience less proper upbringing and parental care than students from dual parents	101 (50.5)	99 (49.5)	1.19	.392
4	Students from single parents homes often feel free to mingle with students from dual homes in their schools, playgrounds, churches or mosques with attendant effect on their academic excellence	110 (55.0)	90 (45.0)	1.29	.487
5	Students from single parents homes often feel bad when their mates in school makes derision of them because they are living with a single parents, and this usually have adverse effect on their academics especially in Computer Science	187 (93.5)	13 (6.5)	1.12	.327

Regarding the association between students' academic success in computer science and their status as being raised by single parents, Table 2 displayed the mean and standard deviation scores for items 1 to 5. The table displayed mean scores that ranged from 1.01 to 1.29 as well as standard deviation ranges between.115 and.487. Analysis of the statement revealed that while 35.0% of respondents disagreed, 65.0% of respondents believed that students from single parents frequently thrive academically in their studies, namely in computer science. Further, a slight majority (50.5%) of the respondents said that students from single parents rarely receive less proper upbringing and parental care than students from dual parents. However, 70.0% further stated that students from single parents do face intimidation in school because of their social status. The table also showed that (93.5%) of all respondents believed that students from single parents frequently feel bad when their classmates make fun of them because they are living with a single parent, and that this usually hurts their academic performance, while (55.0%) of respondents agreed that students from single parents frequently feel free to mingle with students from dual homes in their schools, playgrounds, churches, or mosques.

Research Question 2: What are the mitigating factors that might propel the effect of single parenting on academic success of students in Computer Science, such as parental involvement, family support, or socioeconomic status?

Table 2: Responses to the mitigating factors that might propel the effect of single parenting on academic success of students in Computer Science, such as parental involvement, family support, or socioeconomic status

S/N	Item	Yes (%)	No (%)	Mean	SD
1.	Do students from single parents not pay adequate attention in Computer Science classes in relation to their counterparts from dual parental homes?	98 (49.0)	102 (51.0)	1.67	.949
2.	Do students from single parents buy Computer Science textbooks and other learning materials on time to aid in their academic excellence?	101 (50.5)	99 (49.5)	1.60	.986
3.	Do students from single parents miss Computer Science classes because they did not pay their school fees on time due to their parent's socioeconomic status?	98 (49.0)	102 (51.0)	1.60	.959
4	Students living with their single parents are academically poor in Computer Science because the single parents are not interest in their ability and performances in the subject?	95 (47.5)	105 (52.5)	3.37	1.496
5	Students from single parents do not concentrate fully when studying Computer Science at home or in the library compared to those from dual parents	150 (75.0)	50 (25.0)	3.25	1.490

Table 3 displayed the mean and standard deviation scores for items 1 to 5 addressing responses to the mitigating factors, such as parental participation, family support, or socioeconomic position, which may help to offset the effect of single parenting on the academic success of students in computer science. The mean scores, which ranged from 1.60 to 3.37 and standard deviation values (.949 to 1.496), were displayed in the table. According to the statement's analysis, 51.0% of respondents disagreed with the claim that students from single-parent households do not pay sufficient attention in computer science classes compared to their counterparts from dual-parent households, while the remaining 49.0% supported this belief. Additionally, the slim majority (50.5%) of respondents agreed that single-parent students do promptly purchase Computer Science textbooks and other educational tools to support their academic success. In the same vein, a slight majority (51.0%) of respondents disagreed that students with single parents miss Computer Science classes because they did not pay their school fees on time consequent upon their parent's socioeconomic status; (52.5%) of respondents disagreed that students with single parents

perform poorly academically in Computer Science because the single parents are uninterested in their ability and performances in the subject; and (75.0%) of respondents disagreed that students with single parents are academically poor in Computer Science because of their parent's socioeconomic status.

Research Question 3: What are the perceived difficulties faced by single-parent students in Computer Science, and what kinds of supports are needed in addressing these difficulties?

Table 4: Response to the perceived difficulties faced by single-parent students in Computer Science and the kinds of supports are needed in addressing these difficulties

S/N	Item	Yes (%)	No (%)	Mean	SD
1.	Single-parent students are often faced with economic hardship which debar them from purchasing necessary materials needed for Computer Science subject	105 (52.2)	95 (47.5)	1.17	.381
2.	Single-parent students mostly lack parental care, and this psychologically affect them during Computer Science classes	115 (57.5)	85 (42.5)	1.08	.273
3.	Single-parent students do not usually socialize and this restrained them from socializing with other students in Computer Science classes	125 (62.5)	75 (37.5)	1.49	.503
4	Single-parent students usually lack holistic guidance and counseling, and this seldom affect them in their academic pursuit, most especially in Computer Science	120 (60.0)	80 (40.0)	1.05	.226
5.	Students from single parents needs all-inclusive supports from their peers, teachers, philanthropist and the society at large	200 (100.0)	0 (0.0)	1.16	.218

The responses to the questions about the perceived challenges faced by single-parent students in computer science and the types of assistance required to meet these challenges were shown in Table 4 along with the mean and standard deviation scores for each item. The table displayed mean scores between 1.05 and 1.49 and standard deviation ranges between.226 and.503. According to an analysis of the response data, 52.5% of respondents agreed that single-parent students frequently experience financial difficulties, which prevents them from acquiring the supplies they need for the Computer Science course, while only 47.5% did not. Additionally, the majority (57.5%) of respondents agreed that single-parent students typically lack holistic guidance and counseling, which prevents them from interacting with other students in computer science classes. Additionally, the majority (62.5%) of respondents agreed that single-parent students do not typically socialize, which prevents them from interacting with other students in computer science classes.

Research Question 4: In the field of Computer Science, are there notable disparities between students raised in single-parent households and those raised in dual-parent households in terms of academic achievement as evaluated by grades or other indicators?

Table 5: Responses to the notable disparities between students raised in single-parent households and those raised in dual-parent households in terms of academic achievement as evaluated by grades or other indicators in the field of Computer Science

S/N	Item	Yes (%)	No (%)	Mean	SD
1	Students from single parents usually have lower grades in Computer Science when they are compared with the other students that were raised in dual-parent households	187 (93.5)	13 (6.5)	1.12	.327
2	Students from single parents household easily get intimidated due to their lack of courage and boldness compared to students from dual parents in their academics	137 (68.5)	63 (31.5)	1.09	.336
3	Students from single parents sometimes feel inferior both socially and academically to students from dual parents	117 (58.5)	83 (41.5)	1.81	.392
4	Students raised in a single parent households are sometimes in shortage of basic amenities, moral deraignment, and academically weak when compared to the students raised in a dual parents households	140 (70.0)	60 (30.0)	1.10	.326
5	Students raised by single parents often face tougher life challenges than those raised by dual parents with respect to their academics and social life	105 (52.5)	95 (47.5)	1.82	.391

The responses to the questions about the notable differences between students raised in single-parent households and those raised in dual-parent households in terms of academic achievement as judged by grades or other indicators in the field of computer science were presented in Table 5 along with the mean and standard deviation scores for each item. The table displayed mean scores that ranged from 1.09 to 1.82 as well as standard deviation ranges between.326 and.392. When the statement was analyzed, it was discovered that the majority of respondents (93.5%) agreed that, when compared to other students who were raised in dual-parent households, students from single-parent households typically have lower grades in computer science. The remaining marginal (6.5%) held the opposite opinion.

Furthermore, the table revealed that most respondents (68.5%) believed that students from single-parent households easily feel inferior to students from dual-parent households on both a social and academic level. Additionally, most respondents (58.5%) believed that students from single-parent households occasionally feel inferior on both a social and academic level. A small majority of respondents (52.5%) believed that students raised by single parents frequently face tougher life challenges than those raised by dual parents regarding their academics and social lives. Additionally, 70.0% of respondents believed that students raised in single parent households occasionally lack basic amenities, have moral derangement, and are academically weak when compared to students raised in dual parent households.

Hypotheses Testing

Hypothesis 1: There is no significant relationship between students' academic success in Computer Science and their position as being raised by single parents.

Table 6: Correlation between students' academic success in Computer Science and their position as being raised by single parents

		Academic Success	Parental Status
Academic Success	Pearson Correlation	1	.454**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	188.875	82.350
	Covariance	.949	.414
	N	200	200
Parental Status	Pearson Correlation	.454**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	82.350	174.220
	Covariance	.414	.875
	N	200	200

***. Correlation is significant at the 0.05 level (2-tailed).*

The association between students' academic achievement in computer science and their status as being raised by a single parent was displayed in Table 6. The table showed that for responses to students' academic success in computer science and their status as being raised by single parents, the calculated Pearson Correlation Sig. value (.454) was smaller than the table value of 3.84 (at the 95% level of confidence). Nevertheless, the covariance was (.949) and (.875), respectively. This showed a positive association between parental status and students' academic success in computer science. As a result, the null hypothesis was rejected. This suggests that there was a strong correlation between the academic success of students in computer science and their situation as single-parent children.

Hypothesis 2: There is no significant effect of mitigating factors of single parenting on academic success of students in Computer Science, such as parental involvement, family support, or socioeconomic status.

Table 7: Analysis of Variance (ANOVA) effect of mitigating factors of single parenting on academic success of students in Computer Science; such as parental involvement, family support, or socioeconomic status

Source	SS	Df	MS	F	P
Between Groups	108.133	2	84.067	5.239	0.000
Within Groups	286.417	198	14.048		
Total	404.550	200			

Table 7 displays the Analysis of Variance (ANOVA) of the impact of mitigating factors, such as parental participation, family support, or socioeconomic situation, on the academic success of students majoring in computer science. F= 5.239, P= 0.000, which is less significant than 0.05 level of significance, was found. This suggests that mitigating factors, such as parental participation, family support, or socioeconomic background, have a considerable impact on the academic success of students majoring in computer science. As a result, the null hypothesis was rejected.

Hypothesis 3: There is no significant effect of perceived difficulties faced by single-parent students on the academic excellence of students in Computer Science.

Table 8: Analysis of Variance (ANOVA) effect of perceived difficulties faced by single-parent students on the academic excellence of students in Computer Science

Source	SS	Df	MS	F	P
Between Groups	2741.36	2	69.207	0.302	0.001
Within Groups	3552.07	198	13.871		
Total	6293.43	200			

The Analysis of Variance (ANOVA) of the relationship between reported academic challenges faced by single-parent students and students' academic achievement in computer science is presented in Table 6. F= 0.302, P= 0.001, which is less significant than 0.05 level of significance, was found. This suggests that the perceived challenges faced by single-parent students have a considerable impact on the academic performance of computer science students. As a result, the null hypothesis was rejected.

Hypothesis 4: There is no significant difference between the academic achievement of students raised in single-parent households and those raised in dual-parents households in the field of Computer Science.

Table 9: *t*-test analysis of difference between the academic achievement of students raised in single-parent households and those raised in dual-parents households in the field of Computer Science

Students' Status	N	Mean	SD	Df	$t_{(cal)}$	$t_{(tab)}$	Remark
Single Parent	93	19.32	5.022	198	2.38	1.98	S
Dual Parents	107	24.10	4.227				

P<0.05 level of significance *S = Significant*

According to Table 9, there is a mean difference of 4.78 between the mean perception rating of children with single parents (19.32) and that of students with dual parents (24.10). There is a difference of (0.795) in the standard deviation, a measure of variability. The t-test analysis demonstrates that, at a significance level of 0.05, the calculated value (2.38) is

greater than the table value (1.98). This suggests that there is a sizable gap in academic achievement in the field of computer science between students raised in single-parent families and those raised in dual-parent households. Therefore, the null hypothesis cannot be supported. The difference between the academic achievement of students raised in single-parent households and those raised in dual-parent households in the field of computer science existed in favor of those raised in dual parental household, as implied by the fact that students raised in dual parental households had higher mean perception ratings than their counterparts raised in single parental household.

Discussion of Results

In this study, single parenthood's prevalence and its effects on students' academic performance in computer science in senior secondary schools in Ikere Local Government Area, Ekiti State, are being examined. To do this, four research questions and four research hypotheses were put out. The findings showed a significant relationship between single-parent status and the academic success of computer science subjects. However, they also showed that mitigating factors like parental involvement, family support, and socioeconomic status have a significant impact on computer science majors' academic success. The findings also demonstrated that some perceived difficulties faced by single-parent students have a significant influence on computer science students' academic performance. These results corroborate those of Epstein (2010), Anyakoha (2016), Fan and Chen (2016), and Shute, Hansen, Underwood and Razzouk (2011) who discovered that factors related to the home, such as communication with children, participation in school activities, and communication with teachers, enforcing rules, studying at home, making decisions, working with the community, discussing school activities, checking homework, aspirations and expectations, reading, and volunteering have great impact on academic outcomes of the students.

This finding is also compatible with the Resource Deprivation Model, one of the theoretical frameworks used in this study. Due to a lack of resources, this theory contends, children may have restricted access to reading, extracurricular activities, tutoring, and other forms of educational support. This could have an effect on a child's academic development and chances of receiving a general education. These findings, though, are different from those of Cahit and Metin (2020), who looked into the impact of parental involvement on students' academic achievement at the preschool, primary, and secondary levels and found that it had a negligibly positive influencing effect. Additionally, they discovered that parental control had a negative and significant influence whereas parental expectations had a negative and limited impact on academic attainment.

The results of this study also showed that there is a significant difference between kids raised in dual-parent households and those raised in single-parent families in terms of academic accomplishment in the field of computer science. The fact that students raised in dual-parental households had higher mean perception ratings than their counterparts raised in single parental households suggests that there was a difference between the academic achievement of students raised in dual-parental households and those raised in single-parental households in the field of computer science in favor of those raised in dual-parental households. This result is also consistent with findings from Oyediran (2019), Yuko (2017), and Salami & Alawode (2000), which discovered in their respective research that children from dual-parent families performed significantly better than those from single-parent households. This finding contrasts with that of Anyakoha (2016), who in his study on single parenting as a correlation of students' academic performance in Unity Secondary School in

the South East Geo-Political Zone of Nigeria found no difference in the academic performance of single-parent male and female students regarding the impact of their educational level.

Conclusion

Single parenthood, which is defined as one parent not living with the child, has become a common family arrangement in modern nations. Questions have been raised about the possible effects of the change in family dynamics, brought on by elements like divorce, separation, or single parenting out of choice, on different parts of children's lives, including their academic achievement. The traditional nuclear family, which consists of two parents and their kids living under one roof, has long been seen as the basic social structure for raising children. A rise in single-parent homes, where one parent serves as both a caretaker and a wage earner, is a result of cultural developments. This change has led scholars, teachers, and policymakers to investigate the impact of single parenthood on children's educational outcomes. According to studies, kids who are raised by a single parent may have certain difficulties that influence how they develop academically. These difficulties may be exacerbated by financial strain, a lack of parental attention owing to work obligations, and emotional stress brought on by the altered structure of the family.

Researchers have therefore investigated whether being a single parent affects students' academic achievement, including their grades, test results, and total educational attainment. In order to better understand the frequency of single parenthood and its effects on students' academic performance in computer science, this study set out to look at the issue. The fact that students raised in dual-parental households had higher mean perception ratings than their counterparts raised in single-parental households suggests that there was a difference between the academic achievement of students raised in single-parent households and those raised in dual-parent households in the field of computer science, favoring those raised in the dual parental household. The findings also showed a significant relationship between the academic success of computer science majors and their status as single-parent children, and that mitigating factors, such as parental involvement, family support, or socioeconomic status, have a significant impact on the academic success of computer science majors.

Recommendations

In schools without them, guidance and counseling programs should be added, and those that do should be improved. Single parents need to learn how to manage their time so that they can help their kids with their homework, give them advice on how to succeed academically, visit their kids' schools to learn more about how they're doing in class, and provide them with all the supplies they need for their studies. If computer science instructors notice that students from single-parent households are falling behind in their academic performance, they should provide remedial instruction. Males in single-parent households should be given a lot of attention in order for them to do well. Students from single-parent households should receive the appropriate assistance and psychological support from school counselors to help them resolve their academic and emotional difficulties. They would concentrate on their studies if the proper assistance was provided. Parents—especially single parents—should be encouraged to consistently attend PTA meetings at their children's schools. This would enable them to strengthen their bonds with the students and school staff, which will enhance their wards' success in exams.

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