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The Impact of Biological and Social Factors in Academic Performance of Children in Katsina Local Government Area, Katsina State

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ABSTRACT

This study investigates the impact of biological factors on the academic performance of children in Katsina Local Government, Katsina State. Utilizing a mixed-methods approach, both quantitative and qualitative data were gathered from a sample of parents, and educators. Quantitative analysis involved assessing variables such as genetic predispositions, nutritional status, health conditions, and developmental milestones, while qualitative inquiries explored familial influences, socio-economic backgrounds and community dynamics. Preliminary findings suggest a significant correlation between biological factors and academic outcomes, highlighting the need for targeted interventions to address health disparities and support holistic development among children in the region. Further research is warranted to delve deeper into these dynamics and inform policy measures aimed at enhancing educational equity and achievement in Katsina State.

Keywords: Biological, Social Factors, Academic Performance and Children

1.0 Introduction

Education is a fundamental cornerstone of human development and progress, with its impact reverberating across generations. In Katsina Local Government Area, situated within the state of Katsina, Nigeria, as in many regions around the world, the academic performance of children is a matter of paramount concern. It serves as a vital predictor of future opportunities, social mobility, and overall well-being. However, academic performance is not solely determined by classroom instruction; it is a complex interplay of numerous factors, among which biological and social elements stand as pivotal determinants. This study delves into "The Importance of Biological and Social Factors for Academic Performance of Children in Katsina Local Government Area, Katsina State." It seeks to explore the multifaceted influences that shape the academic trajectory of children in this region. By comprehending the intricate interactions between biological and social factors, this research aims to provide a deeper understanding of the challenges and opportunities that underlie academic success, thereby offering insights to inform more effective educational policies and practices. Katsina, like many areas in Nigeria and beyond, faces unique challenges and opportunities related to education. While the desire for educational advancement is universal, the context within which children learn and grow plays a pivotal role in their academic journey. Biological factors, such as gender, health, and cognitive abilities, have been known to significantly influence academic outcomes. Recognizing the paramount importance of addressing these factors in the context of Katsina, this research embarks on a journey to unravel the educational landscape in this specific locale. It will explore how gender dynamics, health, nutrition, cognitive abilities, family backgrounds, and local cultural influences come together to mold the academic performance of children in Katsina Local Government Area. Educational institutions and teachers undoubtedly wield a strong influence on student achievement; however, attributing academic performance solely to these entities would be an oversimplification. Students' familial challenges, such as inadequate family support or socioeconomic deprivation, exert an equally impactful influence on their academic outcomes (Mushtaq & Khan, 2012). Research reveals that various social factors, including Social Support, Access in Community, Gender Discrimination, and Students' Satisfaction, exhibit a weak yet significant effect on academic achievement. It is noteworthy that the seemingly weak impact of social factors may be attributed to the intricate interplay of additional determinants, such as economic and educational factors. Despite their apparent weakness, the importance of social factors in shaping academic success cannot be dismissed. Family structure and societal beliefs play a pivotal role in molding individuals' personality traits across generations (Ahmad, 2009). These same social factors contribute to the formation of attitudes towards education (Akareem and Hossain, 2016). Higher Educational Institutions can function as mediators between social factors and academic achievement, mitigating the adverse effects of social deprivation. The impact of access in the community on students' social satisfaction is found to be weak and insignificant, suggesting that universities serve as microcosms of social communities. This may be attributed to students' lack of awareness regarding the significance of their societal participation. Gender discrimination, often associated with women, requires reevaluation, as it affects both genders. While previous literature primarily linked gender discrimination to women (Wang and Degol, 2017), societal perceptions are evolving with an increasing number of women engaging in social and economic activities. Policymakers should

redefine the concept of "Gender Discrimination" to encompass both genders, ensuring equal protection for males facing discrimination. Imbalances in gender considerations contribute to skewed occupational distributions, with more women entering male-dominated professions (Schwartz and Han, 2014). Recent research underscores the influential role of gender discrimination, along with social support, in shaping Student Satisfaction with Social Status. Access in the community, though weak, exhibits a significant effect on social satisfaction. Surprisingly, despite being identified as mediators, social satisfaction and other social factors demonstrate weak and insignificant effects on student academic achievement (Zil and Ayaz, 2022).

1.1 Biological and Social Factors for Academic Performance

Poor academic performance (PAP) can be attributed to a variety of factors, with social and biological influences standing out as particularly crucial. Social factors determine the potential for realizing inherited cognitive programs related to understanding the external world, while biological factors govern the stable functioning of developmental programs. The origins of PAP are diverse, reflecting systemic issues in psychophysiological development that impact various levels of learning activity organization. Examining the neurobiological mechanisms of educational challenges is pertinent both theoretically and practically, offering insights for optimizing education and addressing poor academic performance. The emergence of PAP due to specific genetic disorders appears to be a comprehensible mechanism, and understanding its pathogenesis enables the exploration of cellular mechanisms. Recent attention in foreign literature has focused on the association between mental retardation syndrome and fragile X syndrome (FXS), a prevalent inherited form of mental retardation, as highlighted by Sabaratnam (2006). Cognitive disorders associated with FXS range from normal intelligence with learning disabilities (LDs) to severe mental retardation, as discussed by Cornish (2008) and Kaufmann (2004). Additionally, the premutation of the FMR1 gene (55 to 200 repeats) is associated with fragile associated tremor/ataxia syndrome (FXTAS), as reported by Goetz (2007). A crucial developmental characteristic in many gifted children is "asynchrony," characterized by uneven progress in different aspects of the psyche due to abnormally rapid development of certain components, in contrast to the unevenness caused by developmental retardation. Internal asynchrony often manifests as an imbalance between verbal and nonverbal abilities, posing challenges in education, personal development, communication, and behavior for gifted children despite their high general intelligence. Nonverbal learning disabilities (LDs) encompass issues such as clumsiness, poor visuomotor coordination, organizational difficulties, social communication challenges, inability to sing or draw, and frequently, attention disorders, even leading to a medical diagnosis of ADHD (Montgomery, 2003). Some slowly progressing gifted junior schoolchildren exhibit integrated perception, which may be less efficient in learning but potentially more advantageous in other activities, according to Gyarmathy (2004). It is suggested that these children may perceive and interpret the world differently, possessing a form of giftedness distinct from academic prowess. Distinct differences observed among the studied children's groups underscore the importance of employing a comprehensive technique for identifying the causes of PAP.

1.2 Students satisfaction

In many developing countries, the predominant teaching approach is often centered around the teacher, presenting a challenge when attempting to transition to a student-centered approach. However, adopting a student-centered approach is crucial, not only for fostering effective learning but also for ensuring student satisfaction. An essential aspect for universities to remain competitive in the educational market. The diverse cognitive and personality variations among students necessitate a careful consideration of teaching strategies and method flexibility to ensure equal learning and satisfaction for all students (Al Shaikh et al., 2019). Demographic factors and students' backgrounds play a significant role in shaping their perceptions of the quality of higher education, as highlighted by Akareem and Hossain (2016). Elements such as scholarship status, extracurricular activities, parents' education, age, previous academic results, and the university they attend exert a considerable influence on students' views regarding the quality of education. Adnan et al. (2016) discovered that satisfied students tend to exhibit higher self-confidence and active participation in the educational process. This satisfaction translates into increased commitment and motivation, ultimately leading to improved academic performance and the achievement of learning objectives. These observations have prompted researchers to develop models focused on students' satisfaction. Wach et al. (2016) identified students' own personality characteristics as significant influencers of academic satisfaction.

1.3 Student achievement

Classrooms play a pivotal role in shaping the future of a nation, and the performance within these classrooms is often gauged through examinations, particularly final examinations, which serve as the primary means of assessing students' skills and knowledge. These results also serve a predictive function for various stakeholders. Weinberg et al. (2019) defines educational expectations as aspirations for a well-paid job, a stable life, or political engagement based on one's education. Higher educational attainment is associated with higher educational expectations, influencing students' future paths. Conversely, students with lower educational achievement may face challenges in their future social and economic lives, although technological advancements have opened up high-earning opportunities that often require higher education.

1.4 Objectives of the Study

The aim of this study is to investigate and understand the role of biological and social factors in shaping the academic performance of children in Katsina Local Government Area, Katsina State, with the goal of providing insights for improving educational outcomes. The objectives of the study are:

1. To investigate and analyze the influence of biological factors, including health, genetics, and nutrition, on the academic performance of children in Katsina Local Government Area.

2. To examine the impact of social factors such as family background, socio-economic status, and parental involvement on the academic performance of children in Katsina Local Government Area.
3. To identify and analyze the interaction between biological and social factors and their combined influence on the academic performance of children in Katsina Local Government Area.

2. RESEARCH METHOD

2.1 Study Area

The study was conducted in Katsina metropolis. Katsina State which is located at latitude 12.15ºN and longitude 7.30ºE and the Population of the state is about 5,801,584. The city of Katsina is an urban area which is estimated to have 505,000 populations in 2022.

2.2 Research Design

The study subjects consist of some selected parent and teachers of children and students from various schools in Katsina metropolis of Katsina state, including both private and governmental Nursery and Primary Schools. A cross-sectional design was use for this research to collect data at a single point in time, providing a snapshot of the current state of academic performance and its associated factors in the area. Visit to schools and communities help to make observations about the learning environment, school facilities and cultural factors.

2.3 Data collection

The researcher Develop surveys and Two hundred (200) questionnaires to collect data from parents, teachers and students from ten (10) selected schools from Katsina metropolis. These instruments includes questions related to biological factors, socioeconomic status parental involvement, cultural practices, access to education, and peer influences. Interviews with key stakeholders was conducted, including educators, community leaders and local health professionals, to gain qualitative insights and a deeper understanding of the issues.

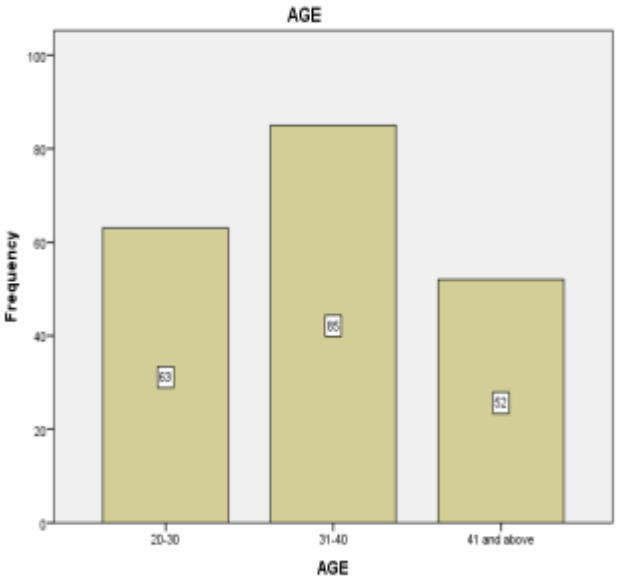
3. Result and Discussion

Demographic profile of the respondents

Personal information of the respondents for the research was analysed. The data include their Gender, Age of the respondent and Educational background of the respondent.

Gender of the respondent	**Frequency**	**Percentage**
Male	60	30.0%
Female	140	70.0%
Total	200	100%
Age of the respondents		
20-30	63	31.5%
31-40	85	42.5%
41-Above	52	26.0%
Total	200	100%
Education background		
Secondary	9	4.5%
NCE/ND	89	44.5%
Degree	69	34.5
Others	33	16.5
Total	200	100%

Table 1. Demographic profile of the respondents



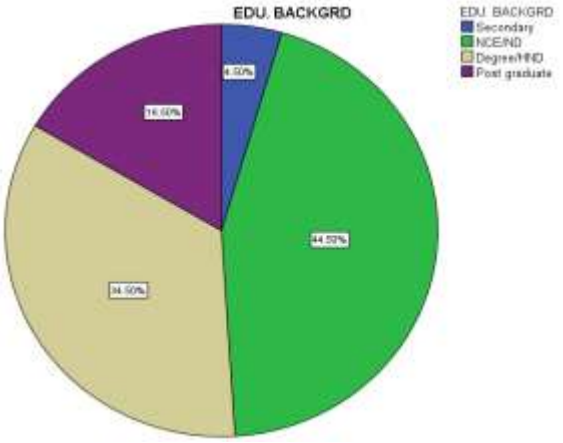


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Table 1 gives the demographic breakdown, which reveals the interesting visions into the sample population. In terms of gender, the majority of respondents are female, comprising 70% of the sample, while males represent 30%. This could suggest a higher level of participation or interest among females in issues related to children's academic performance in the Katsina Local Government Area. Regarding age distribution, the largest proportion of respondents falls within the 31-40 age range, accounting for 42.5% of the sample. This indicates that individuals in this age group are more likely to be engaged or have opinions on the subject matter compared to other age groups. However, it's worth noting that there is still a considerable representation from both younger and older age brackets. Educational background showcases a diverse range of respondents, with the majority having completed either NCE/ND or holding a degree/HND, comprising 44.5% and 34.5% of the sample, respectively. This suggests that the survey draws perceptions from individuals with varying levels of educational attainment, potentially enriching the perspectives and analysis provided. Overall, the distribution across gender, age, and educational background underscores the broad participation and diversity within the sample, which could enhance the comprehensiveness and reliability of the findings regarding the impact of biological and social factors on children's academic performance in the specified area.

Data presentation Analysis and Discussion

The data collected in respect of questionnaire distributed and interview to the respondents. The analysis was done using statistical package for social sciences (SPSS) to obtained the percentage of every questions answered. The respond of the respondent from the questionnaire are discuss in the tables below.

Analyzing the influence of biological factors, including health, genetics, and nutrition, on the academic performance of children

Questions	**Yes**	**%**	**No**	**%**
Have you observed any correlation between the overall health condition of a child and their academic performance?	155	77.5%	45	22.5%
Do you believe that the nutritional status of a child can impact their academic achievements?	171	85.5%	29	14.5%
In your opinion, does a child's genetic background play a role in determining their academic abilities?	125	62.5%	75	37.5%

Table 2. Influence of biological factors on the academic performance of children

Table 2. Indicates a strong belief among respondents in the correlation between a child's overall health condition and their academic performance, with 77.5% affirming this connection. This suggests a widespread recognition of the importance of physical well-being in educational outcomes. The high percentage implies that many individuals in the Katsina Local Government Area perceive a direct link between a child's health and their ability to succeed academically. This underscores the significance placed on ensuring students' health and well-being as a foundational aspect of their educational journey. Conversely, 22.5% of respondents reported not observing a correlation between a child's overall health condition and their academic performance. While this percentage is smaller compared to those who believe in the correlation, it still represents a notable portion of the sample. This minority perspective could stem from various factors, such as differing interpretations of what constitutes "overall health condition" or individual experiences that do not align

with the perceived correlation. Understanding the reasons behind this viewpoint could provide valuable insights into the complexities of assessing the relationship between health and academic achievement. The overwhelming majority opinion supporting the correlation between a child's health and academic performance suggests potential implications for educational policies and practices in the Katsina Local Government Area. It underscores the importance of integrating health and wellness initiatives into educational frameworks to support students' holistic development. This could involve initiatives such as promoting healthy lifestyle habits, providing access to healthcare services, and creating supportive environments that prioritize students' physical and mental well-being alongside academic achievement. Overall, the data highlights the consensus among respondents regarding the significant role of a child's overall health condition in shaping their academic performance. Acknowledging and addressing this correlation could contribute to more comprehensive approaches to education that prioritize the health and well-being of students, ultimately fostering environments conducive to optimal learning and academic success.

The data presents a resounding affirmation from the majority of respondents, with 85.5% expressing a belief in the impact of a child's nutritional status on their academic achievements. This overwhelming consensus underscores the perceived importance of nutrition in educational outcomes among individuals in the Katsina Local Government Area. It suggests a widespread understanding that access to nutritious food and proper dietary habits play a significant role in supporting children's cognitive development, concentration, and overall academic performance. This recognition highlights the need for comprehensive strategies to address nutritional needs within educational settings to ensure that students have the support necessary to thrive academically.

Conversely, 14.5% of respondents indicated a belief that a child's nutritional status does not impact their academic achievements. While this perspective represents a minority within the sample, it still warrants consideration. Understanding the reasons behind this viewpoint could provide insights into potential misconceptions or gaps in awareness regarding the relationship between nutrition and academic performance. Addressing these discrepancies through education and evidence-based advocacy may help foster a more holistic understanding of the importance of nutrition in supporting children's educational success. The data reveals a significant divide in opinions regarding the role of a child's genetic background in determining their academic abilities. While 62.5% of respondents believe that genetic factors play a role in shaping academic abilities, 37.5% disagree with this notion. This split suggests varying perspectives within the sample regarding the extent to which genetics influence educational outcomes. Those who support the idea of genetic influence may attribute differences in academic performance to inherent cognitive traits or predispositions inherited from parents or ancestors. On the other hand, those who reject the notion of genetic determinism may emphasize environmental factors, such as access to quality education, socio-economic status, and family support, as primary drivers of academic success. Understanding and reconciling these differing viewpoints can inform discussions on educational equity and personalized learning approaches that account for both genetic and environmental influences. The divergence in opinions regarding the role of genetic background underscores the complexity of factors contributing to academic achievement. While genetics may contribute to individual differences in cognitive abilities, it is essential to recognize the interplay between genetic predispositions and environmental influences in shaping educational outcomes. Addressing disparities in academic achievement requires a multifaceted approach that considers both genetic and environmental factors, as well as interventions aimed at mitigating barriers to learning and promoting equitable access to educational opportunities for all children, regardless of their genetic background. This acknowledgment can guide policymakers, educators, and stakeholders in developing inclusive educational policies and practices that support the diverse needs and abilities of students.

The impact of social factors such as family background, socio-economic status, and parental involvement on the academic performance of children

Questions	**Yes**	**%**	**No**	**%**
Have you noticed differences in academic performance based on the socio-economic status of a child's family?	144	72.0%	56	28.0%
Do you think parental involvement in a child's education positively influences their academic success?	159	79.5%	41	20.5%
In your observation, does the family background of a child have a notable impact on their academic performance?	83	41.5%	117	58.5%

Table: 3. The impact of social factors on the academic performance of children

The data of table 3. demonstrates a clear consensus among respondents regarding differences in academic performance based on the socio-economic status of a child's family. A significant majority, comprising 72.0% of respondents, reported observing disparities in academic achievement linked to socio-economic factors. This finding underscores the widely recognized influence of socio-economic status on educational outcomes, reflecting a common understanding that children from disadvantaged backgrounds may face additional challenges that impact their academic success. Factors such as access to quality education, resources within the home environment, parental involvement, and exposure to enrichment opportunities are often intertwined with socio-economic status and can significantly influence students' educational trajectories. Addressing these disparities requires targeted interventions aimed at mitigating the effects of socio-economic disadvantage and promoting equitable access to educational opportunities for all students.

Conversely, 28.0% of respondents reported not observing differences in academic performance based on socio-economic status. While this perspective represents a minority within the sample, it highlights the existence of differing viewpoints regarding the extent of socio-economic influence on educational outcomes. It's possible that individuals holding this viewpoint may emphasize other factors, such as individual effort, motivation, or innate abilities, as

primary determinants of academic success, independent of socio-economic background. However, it's essential to consider the broader context of socio-economic disparities and the wealth of research indicating their profound impact on educational attainment. Recognizing and addressing these disparities is crucial for creating more equitable education systems that ensure every child has the opportunity to fulfill their academic potential, regardless of socio-economic status. Morealso the data strongly suggests that the majority of respondents recognize the positive influence of parental involvement in a child's education on their academic success, with 79.5% affirming this belief. This high percentage underscores the widely held view that parents play a crucial role in supporting their children's learning and development. Parental involvement can take various forms, including helping with homework, engaging in educational activities at home, communicating with teachers, and participating in school events. Such involvement fosters a supportive learning environment that reinforces the importance of education and encourages academic achievement. This finding emphasizes the significance of fostering partnerships between schools and families to facilitate collaborative efforts in supporting students' educational journey.

Conversely, 20.5% of respondents expressed a belief that parental involvement does not positively influence a child's academic success. While this perspective represents a minority within the sample, it suggests that there may be differing opinions or experiences regarding the impact of parental engagement on educational outcomes. Individuals holding this viewpoint may perceive other factors, such as the quality of teaching or external influences, as more significant determinants of academic success. However, the overwhelming majority opinion in favor of parental involvement underscores its importance in promoting positive academic outcomes and highlights the need for strategies to enhance parental engagement in education, particularly among families facing socio-economic challenges or other barriers to involvement.

The data also reveals a significant divide in opinions regarding the impact of a child's family background on their academic performance. While 41.5% of respondents reported observing a notable impact of family background on academic performance, a larger proportion, comprising 58.5%, disagreed with this notion. This split suggests varying perspectives within the sample regarding the extent to which family background influences educational outcomes. Those who affirm the influence of family background may emphasize factors such as parental education level, household income, access to educational resources, and family support systems as critical determinants of academic success. Conversely, those who disagree may attribute differences in academic performance to individual effort, motivation, or other external factors unrelated to family background. Understanding and reconciling these differing viewpoints can inform discussions on educational equity and interventions aimed at addressing disparities in academic achievement.

Analyzing the interaction between biological and social factors and their combined influence on the academic performance of children

Questions	**Yes**	**%**	**No**	**%**
Do you believe there is an interaction between a child's overall health and their family's socio-economic status affecting academic performance?	185	92.5%	15	7.5%
Have you observed instances where both biological and social factors collectively influence a child's academic achievements?	124	62.0%	76	38.0%
In your opinion, can addressing both biological and social factors concurrently enhance a child's academic performance?	189	94.5%	11	5.5%

Table 4: Interaction between biological and social factors on the academic performance of children

The result of Table 4. overwhelmingly supports the belief that there is an interaction between a child's overall health and their family's socio-economic status affecting academic performance, with 92.5% of respondents affirming this notion. This strong consensus suggests a widespread recognition of the complex interplay between health, socio-economic factors, and academic outcomes. It implies that children's physical well-being and their family's socio-economic status are intricately linked and can collectively influence their educational success. Factors such as access to healthcare, nutritious food, safe living conditions, and educational resources are likely to vary based on socio-economic status and can impact a child's overall health and readiness to learn. Understanding and addressing these interactions are crucial for developing comprehensive strategies to support students' academic achievement and well-being.

Conversely, a small minority of respondents, representing 7.5%, reported not perceiving an interaction between a child's overall health and their family's socio-economic status affecting academic performance. While this viewpoint represents a minority within the sample, it underscores the existence of differing perspectives on the complex relationship between health, socio-economic status, and academic outcomes. Further exploration into the reasons behind this perspective may provide insights into potential gaps in understanding or awareness regarding the various factors influencing children's educational trajectories. Addressing these discrepancies and promoting a holistic understanding of the interconnectedness of health and socio-economic factors can inform more effective policies and interventions aimed at improving educational equity and outcomes for all students. It also suggests that a majority of respondents, comprising 62.0%, have observed instances where both biological and social factors collectively influence a child's academic achievements. This finding underscores the recognition of the multifaceted nature of factors impacting educational outcomes, acknowledging that both biological and social determinants can interact to shape a child's academic success. Biological factors such as health conditions, genetic predispositions, and nutritional status may intersect with social factors like socio-economic status, parental involvement, and family background to influence a child's learning and performance in school. Understanding and addressing these complex interactions are essential for developing holistic approaches to education that account for the diverse needs and circumstances of students.

Conversely, 38.0% of respondents reported not observing instances where both biological and social factors collectively influence a child's academic achievements. While this perspective represents a minority within the sample, it suggests that there may be differing opinions or experiences regarding the extent to which biological and social factors interact to impact educational outcomes. Further exploration into the reasons behind this viewpoint may provide insights into potential gaps in understanding or awareness regarding the interconnected nature of biological and social determinants of academic achievement. Addressing these discrepancies and promoting a comprehensive understanding of the interplay between biological and social factors can inform more effective strategies for supporting students' academic success and well-being.

The data overwhelmingly supports the belief that addressing both biological and social factors concurrently can enhance a child's academic performance, with 94.5% of respondents affirming this notion. This strong consensus underscores the recognition of the interconnected nature of biological and social determinants in shaping educational outcomes. By addressing both sets of factors simultaneously, educators, policymakers, and stakeholders can create more comprehensive and holistic interventions aimed at supporting students' academic success. Strategies that integrate health and wellness initiatives with efforts to address socio-economic disparities, promote parental involvement, and create supportive learning environments are likely to be more effective in addressing the diverse needs and circumstances of students, ultimately enhancing their academic performance and overall well-being.

Conversely, a small minority of respondents, representing 5.5%, expressed doubt regarding the effectiveness of addressing both biological and social factors concurrently to enhance a child's academic performance. While this viewpoint represents a minority within the sample, it suggests the existence of differing perspectives on the efficacy of holistic approaches to education. Further exploration into the reasons behind this perspective may provide insights into potential barriers or challenges in implementing comprehensive interventions that address both biological and social factors. However, the overwhelming majority opinion in favor of addressing both sets of factors underscores the importance of adopting integrated and inclusive approaches to education that recognize and address the diverse needs and circumstances of students.

4. Conclusion

The research sheds light on the intricate relationship between various biological and social factors and their influence on the academic performance of children in the specified region. The study reveals that both biological and social factors play significant roles in shaping the academic outcomes of children in Katsina Local Government Area. It underscores the need for a holistic understanding of the multifaceted influences on educational achievement. The research identifies specific biological factors, including health-related variables such as nutrition, medical conditions and overall well-being that correlate with academic performance. This highlights the interconnectedness of physical health and educational outcomes. Social factors such as socio-economic status, family structure, parental involvement, community support, and cultural influences are identified as crucial determinants of academic success. The study emphasizes the importance of considering the broader social context in educational initiatives. The study also emphasizes the importance of community engagement and collaboration between schools, parents, and local leaders. Building a strong support system within the community can positively impact the academic performance of children

5. Recommendation

Based on the study the following basic recommendations can be made:

Implement health and nutrition programs that address the specific biological factors influencing academic performance. Then, Develop community outreach programs to engage parents and caregivers in the educational process. Also the government should Design socio-economic support initiatives to alleviate economic challenges faced by families in the region. Further more there should be collaboration between schools and the local community. Encourage partnerships that involve community leaders, businesses and organizations to contribute resources, mentorship, and additional support for educational initiatives. Government should always Provide teacher training programs that focus on understanding and addressing the diverse needs of students. Equip educators with skills to recognize and support children with varying biological and social backgrounds in their classrooms. Finally there should be social support programs within schools to address social factors impacting academic performance. These basic recommendations aim to address the identified factors and contribute to the enhancement of academic performance among children in Katsina Local Government Area.

Recommendation for further research

While the study focuses on Katsina local government context, the findings may have broader implications for similar regions facing comparable challenges. The conclusion acknowledges the potential for further research to explore similar dynamics in different senatorial zone of the state and cultural settings.

REFERENCES

Adnan, A.-R., Mohamed, A.-F., Tarek, A., Mun, S., & Hosny, H. (2016). Measuring Student

Satisfaction with Performance Enhancement Activities: Evidence from Business Education. International Journal of Information and Education Technology, 6(10), 741-753. https://doi.org/10.7763/ijiet.2016.V6.786

Ahmad, A. (2009). Gender Differences and Trends in the Participation of Malaysians in Education:

Implications on Employment Outcomes. The Journal of International Management Studies, 4, 65 - 74.

Al Shaikh, A., Aldarmahi, A. A., Al-Sanie, E., Subahi, A., Ahmed, M. E., Hydrie, M. Z., & Al-

Jifree, H. (2019). Learning styles and satisfaction with educational activities of Saudi Health Science University Students. J Taibah Univ Med Sci, 14(5), 418-424. https://doi.org/10.1016/j.jtumed.2019.07.002

Cornish, K., Turk, J., and Hagerman, R., (2008)The Fragile X Continuum: New Advances and Perspectives, J. Intell. Disab. Res. vol. 52, no. 6, p. 469.

Goetz, C.G., Leehey, M.A., Hagerman, R.J., et al., (2007). Neuropathic Features in Fragile X Premutation Carriers, Am. J. Med. Genet. A, vol. 143, no. 1, p. 19.

Gyarmathy, E. (2004). Holistic Learners: Identifying Gifted Children with Learning Disabilities:

An Experimental Perspective, in Able Underachievers, Montgomery, D., Ed., London, Philadelphia: Whurr, p. 76.

Kaufmann, W.E., Cortell, R., Kau, A.S., et al., (2004). Autism Spectrum Disorder in Fragile X

Syndrome: Communication, Social Interaction, and Specific Behaviors, Am. J. Med. Genetics, , vol. 129A, no. 3, p. 225. 5.

Montgomery, D., (2003). NonVerbal Learning Difficulties, in Gifted and Talented Children with Special Education Needs. Double Exceptionality, London: David Fulton, p. 65.

Mushtaq, I., & Khan, S. N. (2012). Factors Affecting Students' Academic Performance. Global Journal of Management and Business Research, 12(9).

Sabaratnam, M., Fragile X Syndrome, Psychiatry, 2006, vol. 5, p. 325.

Schwartz, C. R., & Han, H. (2014). The Reversal of the Gender Gap in Education and Trends in Marital Dissolution. Am Sociol Rev, 79(4), 605-629. https://doi.org/10.1177/0003122414539682

Wach, F. S., Karbach, J., Ruffing, S., Brunken, R., & Spinath, F. M. (2016). University Students' Satisfaction with their Academic Studies: Personality and Motivation Matter. Front Psychol, 7, 55. https://doi.org/10.3389/fpsyg.2016.0005

Wang, M. T., & Degol, J. L. (2017). Gender Gap in Science, Technology, Engineering, and Mathematics (STEM): Current Knowledge, Implications for Practice, Policy, and Future Directions. Educ Psychol Rev, 29(1), 119-140. https://doi.org/10.1007/s10648-015-9355-x

Weinberg, D., Stevens, G., Finkenauer, C., Brunekreef, B., Smit, H. A., & Wijga, A. H. (2019).

The pathways from parental and neighbourhood socioeconomic status to adolescent educational attainment: An examination of the role of cognitive ability, teacher assessment, and educational expectations. PLoS One, 14(5), e0216803. https://doi.org/10.1371/journal.pone.0216803

Zil, H., Ayaz, M. K. (2022) Impact Of Social Factors On The Student Achievement In Punjab, Pakistan. Webology (ISSN: 1735-188X) Volume 19, Number 2,