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The Relationship Between Childhood Obesity and Academic Performance: A Case of South African Rural Schools

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Abstract

Childhood obesity is a growing global concern that impacts both health and education. This article investigates how childhood obesity affects academic performance in rural South African schools. It examines contributing factors such as poor nutrition, low socioeconomic status, and emotional well-being, and how these issues influence learning outcomes. The research is guided by Bronfenbrenner's Ecological Systems Theory, which highlights the influence of various environmental systems on a child's development and school experience. A qualitative research approach was employed, using a case study design to understand the lived experience of obese learners. Data collection included semi-structured interviews with teachers and learners, classroom observations, and document analysis. Participants were selected through purposive sampling from schools with a high prevalence of obesity. Thematic analysis showed that obesity affects learning through fatigue, lack of concentration, and increased absenteeism. Obese learners also suffer from bullying and low self-esteem, which negatively impact their motivation and participation. The study recommends school-based nutrition and physical activity programmes, alongside emotional and psychological support. Ethical procedures were observed throughout the study. The findings highlight the need for collaborative action by teachers, parents, policy makers, and health professionals to promote academic success and well-being among obese learners in rural areas.

Keywords: *Childhood obesity, Academic performance, Rural schools, Psychological well-being, Educational interventions*

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1. Introduction

Childhood obesity has become a growing public health issue, with increasing rates worldwide, including in South Africa. As obesity levels rise among school-aged children, there is growing concern about its impact on various aspects of their lives, particularly academic performance. In rural South Africa, where access to healthcare and proper nutritional education is often limited, childhood obesity presents unique challenges to learners' overall well-being and learning outcomes. This study investigates the relationship between childhood obesity and academic performance in rural South African schools, aiming to explore how obesity affects learners' engagement, participation, and academic achievement. By

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examining this relationship, the research seeks to identify specific academic areas most impacted by obesity and understand the physical, psychological, and social obstacles that obese learners face. Through a qualitative approach, the study incorporates perspectives from both learners and teachers, offering valuable insights into the diverse ways obesity can hinder academic success. The findings aim to inform educators, policymakers, and health professionals about the challenges faced by obese learners in rural schools and emphasize the need for targeted interventions.

Therefore, this article *aims (aim of this paper)* to investigate the relationship between childhood obesity and academic performance in rural South African schools.

To respond to this aim, the article responds to the following questions (Research questions):

- (1) What is the relationship between childhood obesity and academic performance in rural South African schools?
- (2) How does childhood obesity influence physical health and school attendance in rural South African children?
- (3) What psychological challenges do obese children face that impact their academic performance?
- (4) Which specific academic outcomes are affected by childhood obesity in rural schools?

2. Theoretical Framework

This paper is grounded in Bronfenbrenner's Ecological Systems Theory (1979), which explains how various environmental layers affect a child's development. The microsystem includes direct influences like family and school, where everyday interactions play a key role in a child's health and learning. For instance, good support from family and access to school resources can boost a child's motivation and academic success.

The mesosystem refers to the interactions between these environments, such as how family life and schoolwork together to shape a child's behaviour. A child's experience at school can depend on the encouragement they receive at home, showing the importance of collaboration between parents and teachers. The exosystem includes broader influences, like community resources and healthcare access, indirectly affecting a child's life. For example, having nearby parks or sports facilities can provide children with opportunities for physical activity, which is essential for preventing obesity. The macrosystem refers to broader societal and cultural influences, such as poverty and community attitudes towards health. These factors can affect both children and their academic performance. Attitudes about nutrition and exercise can influence how children understand healthy living, thus affecting their choices and behaviours.

Therefore, this theory illustrates how individual factors, such as a child's diet and physical activity, are shaped by broader socio-economic and community contexts. For example, a child might struggle to maintain healthy habits if their family cannot afford nutritious food. By using this framework, the study highlights the various influences on children's development in rural South African schools and underscores the need for comprehensive interventions that address these interconnected factors. Understanding these layers can help policymakers develop better strategies to improve health and education for children facing unique challenges in these communities.

3. Conceptualizing Childhood Obesity

Childhood obesity is a significant global health concern, defined by the World Health Organization (2019) as excessive body fat that threatens a child's health. It is commonly measured using BMI, adjusted for age and sex. Obesity leads to various health problems, including diabetes, heart disease, and mental health issues like depression (UNICEF, 2023). In rural South Africa, obesity is linked to socio-economic factors such as limited access to healthy food, poverty, and inadequate physical education in schools. These challenges contribute to rising obesity rates, particularly in rural areas (Micklesfield *et al.*, 2020). Obesity negatively affects children's academic performance, leading to concentration issues, low energy, and absenteeism, especially in disadvantaged communities. These academic struggles create a cycle of poor health and academic failure, requiring comprehensive interventions addressing health and education (Agyemang *et al.*, 2022).

4. Literature Review

4.1. The Relationship Between Childhood Obesity And Academic Performance

Childhood obesity is a growing concern in South Africa, particularly in rural areas. Research indicates that obesity can negatively impact cognitive development and academic performance. A study by Thenga (2023) found that obese learners in rural secondary schools in the Vhembe District exhibited lower academic achievement compared to their non-

obese peers. The study suggests that obesity-related health issues may contribute to decreased concentration and cognitive function, thereby affecting learning outcomes.

Internationally, similar trends have been observed. A report from Southern Illinois University (2019) highlighted that childhood obesity is associated with diminished academic performance, potentially due to factors such as reduced cognitive abilities and increased absenteeism. These findings underscore the importance of addressing obesity to improve educational outcomes.

4.2. The Impact of Childhood Obesity on Physical Health and School Attendance

Obesity in children is linked to various health complications, including cardiovascular diseases, type 2 diabetes, and musculoskeletal disorders. These health issues can lead to increased school absenteeism, as affected children may require frequent medical attention or experience discomfort that hinders participation in school activities. Thenga (2023) reported that obese learners often miss more school days due to health-related issues, which adversely affect their academic performance.

A study by Debeila *et al.* (2021) in rural Limpopo Province found a high prevalence of overweight and obesity among adolescents, which was associated with various health problems. The study emphasized the need for interventions to address these health issues to improve school attendance and participation.

4.3. Psychological Challenges Faced by Obese Children in School

Beyond physical health, obesity can have significant psychological effects. Obese children are more likely to experience low self-esteem, depression, and social isolation due to stigma and bullying. These psychological challenges can diminish motivation and engagement in academic activities. Thenga (2023) observed that obese learners often face discrimination and teasing from peers, leading to emotional distress and decreased academic involvement.

International research supports these findings. There is a correlation between obesity and lower academic performance, attributing this link to psychological factors such as decreased self-confidence and increased anxiety (Thompson *et al.*, 2023).

4.4. Academic Outcomes Affected by Childhood Obesity

Obesity can affect specific academic areas, including literacy, numeracy, and overall classroom engagement. Thenga (2023) found that obese learners scored lower in mathematics and languages, requiring sustained concentration and cognitive effort. The study suggests that health-related absenteeism and psychological distress contribute to these outcomes.

A study by Caird *et al.* (2014) reviewed the impact of obesity on educational attainment and found consistent evidence that obese children are at a disadvantage academically. The review highlighted the need for comprehensive interventions that address both health and educational challenges faced by obese children.

5. Research Methodology

This article uses a qualitative research approach to explore the impact of childhood obesity on academic performance in rural South African schools. A case study design was employed to investigate the relationship between obesity and academic outcomes, focusing on the lived experiences of learners, educators, and school administrators. A phenomenological method was used to capture participants' perceptions, providing a deep understanding of how obesity affects academic engagement, attendance, and social interactions.

Data were collected through semi-structured interviews, classroom observations, and document analysis of attendance and academic performance records. The study involved 15 obese learners and 10 teachers from three rural schools, selected using purposive sampling to ensure relevant insights. Thematic analysis was applied to identify recurring themes such as academic engagement, absenteeism, and psychological effects.

The study adhered to ethical principles, ensuring informed consent, confidentiality, and voluntary participation. Trustworthiness was maintained through triangulation, member checking, and thick descriptions. The study is limited to rural schools with a high prevalence of childhood obesity and focuses on primary and secondary school learners, excluding urban schools. The research provides a comprehensive and ethical approach to understanding the effects of childhood obesity on academic performance in rural South Africa.

6. Presentation of Findings and Discussion

This section presents findings on how childhood obesity impacts academic engagement, attendance, psychological well-being, and performance in various subjects. The data, collected from both learners and teachers, highlights the challenges faced by obese learners in their educational experiences. It reveals how obesity influences learners' academic involvement, school attendance, mental health, and performance across different subjects. The research emphasizes the need to better understand the difficulties that obese learners encounter and the overall effect of obesity on their academic journey.

Theme 1: The Impact of Childhood Obesity on Academic Engagement and Performance

The data, gathered through interviews with teachers and learners in rural South African schools, highlight how obesity-related factors such as fatigue, low energy levels, and social stigma influence learners' ability to participate in class, focus on tasks, and achieve academically.

The data collected through interviews with teachers and learners in rural South African schools indicate that childhood obesity negatively affects academic engagement and performance, with fatigue, low energy levels, and social stigma as key contributing factors. Teachers noted that obese learners often appeared tired and struggled with focus, particularly later in the school day. Teacher 4 commented, "I've noticed that some of the children who are heavier seem to get tired very quickly, especially in the afternoon. This affects their ability to participate actively in class or concentrate on tasks" This statement reflects how fatigue directly impacts learners' participation and concentration, leading to reduced academic engagement. These findings align with existing literature that links obesity to decreased energy levels, which in turn can make it difficult for children to sustain attention during school activities (Davison et al., 2020). Learner 2 further explained how obesity affected their ability to focus: "I get so tired during class that it's hard to concentrate, especially after break. I can't focus for long, and I know it affects how well I do in tests". This comment underscores how physical symptoms of obesity, such as fatigue, impair concentration and learning outcomes.

Another critical factor contributing to academic disengagement is the social stigma associated with obesity. Both teachers and learners described how the embarrassment and exclusion resulting from their weight hindered participation, especially in group activities. Teacher 7 remarked, "Some of the learners who are obese tend to withdraw from class activities. They avoid participating in group work or even answering questions because they feel embarrassed about their size". Learner 5 echoed these concerns, stating, "I don't like to stand in front of the class because I feel like everyone is looking at me. I prefer to stay at the back and not draw attention to myself". These feelings of self-consciousness and embarrassment, tied to obesity, deterred learners from engaging in class activities, which ultimately hindered their academic progress. Previous research has shown that weight-based teasing and exclusion can significantly lower self-esteem, which in turn contributes to disengagement and lower academic achievement (Puhl and Latner, 2007).

Obesity also affects learners' physical participation in school activities, indirectly influencing their academic engagement. Teachers observed that some obese learners struggled to keep up with physical education exercises, often feeling exhausted and discouraged. Teacher 1 explained, "In physical education, the learners who are overweight often struggle to keep up with the exercises. They seem to get exhausted very quickly, which leaves them feeling discouraged and sometimes they sit out of the activities". The physical limitations caused by obesity not only impact learners' health but also their social inclusion, as participation in physical activities is integral to school life. It fosters teamwork, collaboration, and overall engagement. When obese learners are unable to participate, they may feel left out, which can diminish their motivation to engage in academic tasks as well (Eisenberg et al., 2018). Learner 10 shared their experience: "When we do sports or play outside, I can't keep up with the other kids. I end up sitting on the sidelines and watching. It makes me feel like I'm different from the others". This sense of exclusion extends beyond physical education and affects the learner's overall school experience and academic performance.

Teachers also observed that obese learners were often less motivated to complete assignments or participate in tests, suggesting a link between obesity-related factors and academic underachievement. Teacher 6 explained, "I have a few learners who struggle with their grades, and I suspect part of the issue is that they don't feel confident in themselves. They often don't hand in their work on time or don't try their best in tests". This observation indicates that factors such as low self-esteem and lack of motivation, exacerbated by obesity, may contribute to academic struggles. Research indicates that children with lower self-esteem, often due to bullying or social exclusion because of their weight, are less likely to stay motivated and perform well academically (Dietz, 1998). Learner 4 similarly shared their frustrations: "I don't think I do well in school because I feel like I'm not good enough. Sometimes, I just give up because I don't see the point in trying if I'm always tired and out of breath". This statement reveals the cyclical nature of disengagement and

underachievement, where a lack of energy and low self-esteem reduce motivation, leading to academic struggles.

The findings from this research demonstrate that childhood obesity has a significant impact on academic engagement and performance. Fatigue, low energy levels, social stigma, and physical limitations contribute to difficulties in class participation, focus, and academic achievement. These factors create barriers to success and can lead to decreased motivation and confidence among obese learners. Addressing these challenges requires a comprehensive approach, including interventions aimed at improving physical health, enhancing self-esteem, and fostering inclusive learning environments that support all learners, regardless of their weight.

Theme 2: Physical Health and School Attendance: Barriers to Learning

The second theme of this study, “Physical Health and School Attendance: Barriers to Learning,” explores the ways in which obesity-related health issues, such as fatigue, mobility challenges, and chronic illnesses, influence school attendance and participation in school activities. It also examines how absenteeism due to these health conditions affects learners’ academic performance. Interviews with both teachers and learners from rural South African schools reveal significant barriers to learning resulting from the physical health impacts of obesity.

A common issue raised by both teachers and learners was the impact of obesity on physical stamina, which directly affects learners’ ability to attend school regularly and fully participate in school activities. Teachers noted that obese learners often displayed signs of fatigue, which led to absenteeism or reduced involvement in lessons. Teacher 5 mentioned, “I have noticed that some learners who are overweight frequently miss school, especially when they are not feeling well due to their weight. They often complain about feeling too tired or getting headaches”. This observation highlights the relationship between obesity and chronic health issues such as fatigue and headaches, which can lead to learners missing school. Chronic tiredness caused by obesity-related conditions makes it difficult for learners to attend school regularly, which hampers their academic progress. This is supported by research indicating that children with obesity are at higher risk of chronic health issues that affect both their attendance and ability to learn (Williams et al., 2019).

Some learners described how their weight limited their ability to participate in school activities, which further impacted their school attendance. Learner 12 shared, “I get out of breath very easily, even walking to school. Sometimes I just can’t make it, and I have to stay home and rest because I feel so tired all the time”. This statement reflects how the physical strain caused by obesity makes it difficult for learners to attend school regularly and keep up with the physical demands of school activities. These mobility challenges not only affect attendance but also contribute to missed learning opportunities, potentially leading to long-term consequences for academic achievement.

Obesity is also linked to several chronic illnesses, such as diabetes and asthma, which can lead to frequent absenteeism. Teachers mentioned that some learners miss school due to health conditions exacerbated by obesity, making it difficult for them to maintain regular attendance. Teacher 2 commented, “Some of the learners who are overweight often miss school due to illnesses like asthma or joint problems. They need regular medical care, and it affects their school attendance”. This statement illustrates how obesity-related chronic conditions, like asthma and joint pain, contribute to frequent absences, which ultimately disrupt the learners’ learning and academic performance. The connection between absenteeism and academic underachievement has been well-documented, with research showing that chronic illnesses related to obesity contribute to higher absentee rates, negatively impacting academic performance (Datar et al., 2010).

Learner 9 also shared how their health condition, influenced by obesity, made it difficult for them to maintain regular school attendance: “I have asthma, and it’s worse when I gain more weight. I must stay home sometimes because I can’t breathe properly, and I miss lessons. It’s frustrating”. This experience highlights the direct link between obesity and chronic illness, with asthma worsened by excess weight, leading to absenteeism and academic difficulties. The frustration expressed by the learner further demonstrates how obesity-related health problems affect not only physical health but also emotional well-being, as learners may feel left behind or struggle to keep up with their academic progress.

The interviews revealed a clear connection between obesity-related absenteeism and poorer academic performance. Teachers noted that learners who frequently missed school due to obesity-related health issues often had difficulty catching up with lessons and assignments. Teacher 3 explained, “The learners who miss a lot of school due to health issues find it hard to catch up when they return. They fall behind in their work, and that affects their grades. It’s difficult to help them when they miss so much”. This comment illustrates how absenteeism not only results in missed lessons but also disrupts the continuity of learning, making it difficult for learners to stay on track with their peers. The cumulative effect of missing school due to obesity-related health problems often results in academic setbacks, as learners may lack the necessary support to catch up on missed work.

Learner 15 acknowledged this challenge, saying, “I always have to ask my classmates what I missed, but I still don’t understand some of the lessons. It’s harder to keep up when you’ve been absent for a while”. This statement reinforces the idea that missed school days due to obesity-related health issues create learning gaps that are hard to close. The learner’s struggle to keep up with lessons despite seeking help from peers suggests that the academic disadvantage caused by absenteeism is not easily overcome.

The findings also point to the need for supportive interventions to help obese learners overcome the barriers to learning caused by absenteeism and health challenges. Teachers recommended creating a more supportive school environment, including providing extra academic help for learners who miss school, to help mitigate the effects of absenteeism. Teacher 2 suggested, “We need to create a system where learners who miss school because of health problems can get extra help with their lessons. That way, they don’t fall too far behind”. This suggestion aligns with existing research, which emphasizes the importance of providing academic support for learners with chronic health conditions. Such interventions can help address the learning gaps created by absenteeism, ensuring that obese learners can succeed academically despite their health challenges (Sharma et al., 2020).

The findings from this theme highlight the significant impact that obesity-related health issues have on school attendance and participation in school activities. Fatigue, mobility challenges, and chronic illnesses not only affect learners’ ability to attend school regularly but also contribute to missed learning opportunities, which ultimately affect academic performance. Absenteeism due to obesity-related health conditions creates barriers to consistent learning, leading to academic underachievement. To address these challenges, it is essential to implement supportive interventions that help obese learners catch up on missed work and reduce the impact of absenteeism on their academic success.

Theme 3: Psychological and Social Challenges Faced by Obese Learners

The third theme of this study, “Psychological and Social Challenges Faced by Obese Learners,” explores the emotional difficulties associated with obesity, including low self-esteem, bullying, and social exclusion. It also investigates how these challenges impact learners’ motivation, classroom participation, and academic aspirations. Interviews with both teachers and learners from rural South African schools revealed significant emotional struggles among obese learners, which affect their well-being and academic performance.

A common issue mentioned by both teachers and learners was the negative impact of obesity on self-esteem. Several obese learners shared feelings of inadequacy, which hindered their confidence in academic and social settings. Learner 14 explained, “I always feel like I’m not good enough because of my weight. I can’t stand looking at myself in the mirror. I feel embarrassed and just want to hide”. This statement reflects the emotional distress associated with body image concerns. Low self-esteem, often linked to body image issues, is a common psychological effect of obesity, particularly in adolescents (Puhl and Latner, 2007). These feelings of inadequacy can prevent learners from participating in classroom activities or social interactions, further isolating them and diminishing their motivation. Teacher 6 noted, “The children who are overweight often lack confidence. They don’t volunteer to answer questions or participate in activities because they are embarrassed about their appearance”.

Bullying and social exclusion were also major challenges for obese learners. Many were subjected to teasing and ridicule, which exacerbated their emotional distress. Learner 11 shared, “The other kids call me names like ‘fatty’ or ‘pig.’ It hurts so much, and I just want to stay away from them. I don’t feel like I fit in with the others”. This bullying contributed to feelings of isolation, which are known to affect emotional well-being and academic performance negatively (Puhl and Latner, 2007). Teacher 9 also observed the social exclusion faced by obese learners, noting, “Some of the overweight learners have difficulty forming friendships. They are often left out of group activities or social events, which makes them feel rejected. This social isolation can further affect their academic motivation”. This exclusion results in a lack of peer support, which is crucial for emotional and academic development, further diminishing academic motivation.

The emotional struggles of obese learners often led to decreased motivation to engage in classroom activities. Learner 10 explained, “I don’t feel like I can do well in school. If people are always teasing me about my weight, how can I focus on my studies? I feel like I’m just not good enough”. This statement highlights the link between emotional distress and a lack of academic motivation. Learners preoccupied with body image concerns or bullying may find it difficult to concentrate on schoolwork or participate in class discussions, leading to a decline in academic performance. Research supports this, showing that bullying and low self-esteem can result in decreased motivation, which has long-term educational consequences (McDougall and Vaillancourt, 2015). Teacher 8 added, “When learners are dealing with emotional issues like bullying or feeling bad about their appearance, it becomes hard for them to participate in lessons.

They just don't seem interested in learning, and it's frustrating because they have the potential, but their emotional struggles hold them back".

The findings suggest the need for psychological support to address the social and emotional challenges faced by obese learners. Teachers recommended creating a safe and inclusive school environment, where learners feel accepted regardless of their size. Teacher 3 emphasized, "We need to create a school environment where learners feel safe and accepted, no matter their size. Encouraging kindness and understanding could help reduce bullying and improve the self-esteem of learners who are overweight". This aligns with existing literature, highlighting the importance of fostering inclusive environments to support obese learners emotionally and academically (Murray and McKinney, 2013).

The psychological and social challenges faced by obese learners, such as low self-esteem, bullying, and social exclusion, significantly affect their motivation, classroom participation, and academic aspirations. Interventions that promote emotional well-being and inclusivity are essential to address these issues. By creating a more supportive school environment, educators can help reduce the negative effects of these psychological and social struggles, ultimately enhancing both the academic engagement and overall well-being of obese learners.

Theme 4: The Influence of Childhood Obesity on Specific Academic Outcomes

The fourth theme of this study, "The Influence of Childhood Obesity on Specific Academic Outcomes," examines how childhood obesity affects learners' performance across various academic subjects, with particular focus on whether its impact is more pronounced in cognitive-intensive subjects like Mathematics and Science, compared to language-based subjects such as English and Social Studies. The findings highlight that obesity has a greater influence on subjects requiring more intense cognitive engagement.

The analysis revealed a pattern where obesity seemed to affect performance in cognitive-intensive subjects significantly. Many learners noted difficulty concentrating and feeling physically fatigued, which they attributed to their weight issues. Learner 1 stated, "Mathematics is really hard for me, especially when I have to think for long periods. Sometimes, I get so tired and distracted that I can't focus on the problems". This quote emphasizes the cognitive strain experienced by obese learners, making it difficult for them to engage in tasks requiring sustained mental effort, such as problem-solving in Mathematics and Science. Research supports this observation, indicating that obesity can impair cognitive functions like attention and memory, which are essential for success in subjects that require complex thinking (Foster *et al.*, 2013). Teacher 4 also observed, "In subjects like Mathematics and Science, I notice that some of the overweight learners struggle more. They are often distracted and tired, which affects their ability to concentrate on problem-solving tasks". These comments suggest that obesity-related fatigue and distractions hinder learners' ability to process information effectively, which is crucial in subjects that demand high cognitive engagement.

While the impact of obesity was more pronounced in cognitive-intensive subjects, it also affected performance in language-based subjects, though less severely. Learners expressed more confidence in English and Social Studies but acknowledged that obesity-related emotional challenges still influenced their academic experiences. Learner 6 noted, "I can write essays and answer questions in English, but sometimes I feel like people are looking at me differently because of my weight. I try not to let it affect me, but it does make me less confident when I speak in class". This statement suggests that while academic performance in language subjects may not be as severely affected, the social and emotional consequences of obesity, such as low self-esteem and fear of exclusion, can hinder classroom participation. Teacher 10 observed, "For language-based subjects, some of the overweight learners seem to cope better. They do not struggle with the academic content as much, but they tend to withdraw from group activities or hesitate to answer in front of others". This suggests that while cognitive demands are lower in language-based subjects, emotional challenges like social anxiety and diminished self-confidence can still negatively affect participation and communication skills (Puhl and Latner, 2007).

Overall, childhood obesity has a differential impact on academic outcomes, with more substantial effects in subjects requiring sustained cognitive effort, such as Mathematics and Science. Obese learners often experience increased distraction, fatigue, and difficulty concentrating, hindering their ability to engage in complex tasks. In contrast, the emotional and social challenges of obesity, such as low self-esteem and social exclusion, have a greater impact on classroom participation in language-based subjects. These findings underscore the need for targeted interventions that address both the cognitive and emotional needs of obese learners. For cognitive-intensive subjects, strategies to enhance attention and focus may be beneficial, while fostering an inclusive and supportive classroom environment can help mitigate the emotional challenges of obesity. Addressing both the physical and emotional impacts of obesity is crucial for supporting learners and ensuring their success across all academic areas.

The findings from this study demonstrate that childhood obesity has a significant impact on multiple areas of academic life. Obese learners face challenges with academic engagement, participation, and performance, while also dealing with physical and psychological barriers. The study further reveals that obesity has a more noticeable effect on cognitive-intensive subjects like Mathematics and Science, compared to language-based subjects. These results emphasize the need for targeted interventions that address the physical, emotional, and academic needs of obese learners. By fostering a supportive and inclusive educational environment, educators, parents, and policymakers can help ensure that all learners, regardless of their weight, can thrive academically and personally.

7. Recommendations

The findings suggest several key recommendations to address childhood obesity and its impact on academic performance in rural South Africa. First, integrating health and education programs in schools, including nutrition education and physical activity, can improve both health and academic outcomes by enhancing learners' concentration, energy, and engagement. Second, increased government support and funding are needed to address the specific challenges of rural areas, such as limited access to nutritious food and physical activity opportunities. Community engagement is essential, with parents, healthcare workers, and local leaders playing a crucial role in promoting healthy lifestyles and supporting academic achievement. These recommendations aim to create a comprehensive approach to improving the health and academic success of children in rural South Africa.

8. Conclusion

This study highlights the complex relationship between childhood obesity and academic performance, particularly focusing on rural South African schools. The findings show that obesity negatively impacts learners' academic engagement, participation, and performance, with physical health problems, emotional difficulties, and social exclusion contributing to these challenges. Obese learners in rural areas experience cognitive, psychological, and social barriers that prevent them from performing at their best in school. The research emphasizes the importance of addressing not just the physical health issues associated with obesity but also the emotional and social struggles that these children face. To support these learners, comprehensive interventions involving schools, parents, and healthcare systems are necessary to promote better health and academic outcomes. By fostering an inclusive and supportive environment, educators and policymakers can help minimize the negative effects of obesity on academic performance, ensuring that all learners have an equal opportunity to succeed, regardless of their weight.

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