Original Research Article

INFLUENCE OF SCHOOL HEALTH SERVICES ON PUPILS' ACADEMIC PERFORMANCE IN GEITA TOWN COUNCIL

Abstract

This study aimed at assessing the influence of school health services on pupils' academic performance in Geita town council. There has been no research on the influence of school health services on education in Geita town council. Determining the influence of health services on academic performance will help to assess the need for intervention on the lack of the services in Geita Town Council. The Gay and Airasian methods were used to determine the sample size of the study. Seventeen head teachers and seventeen health teachers from seventeen public primary schools within Geita Town Council were selected. The data was collected through questionnaires and interviews to determine the current school health services provided the influence of the health services on pupils' academic performance. Validity of the data collection was tested using a pilot study. Reliability was tested by using Statistical Packages for Social Sciences (SPSS v.28). The Cronbach Coefficient Alpha was tested and gave the coefficient of 0.7 which was considered reliable. The quantitative data was analyzed using Statistical Packages for Social Sciences (SPSS) for producing descriptive statistics that gave tables of frequencies and percentages. Meanwhile qualitative data was coded thematically for easier narration. The study results reveal that, when pupils receive the health services or medical services they tend to be at school and concentrate in their studies. Performance in the National Examinations in Geita Town Council from 2018 to 2021 shows that, those schools that received health services tended to improve on their academic performance. However, there were schools that received health services and yet their performance was wanting.

Key Words: *School, Health Services, Pupils' Academic Performance*

1.0 Introduction

Studies worldwide have shown that it is a difficult task trying to build a sound education system in a society in which its children face different health problems (Mamuya, 2004). Children who are unhealthy are at higher risk than students who are free from medical problems. They have a higher probability of school failure, grade retention, and dropout. The relationship between student health and academic success is complex. Common manageable factors of student health are nutrition, maintaining healthy weight, and physical fitness (UNICEF 2000).

The Tanzania Development Vision 2025 sees education as critical to creating the mindset necessary for national development and competitive economy that are the driving forces for the realization of that vision. In order to create an innovative and sustainable education system, the vision finds it important to provide empowerment to the next generation who, ultimately, will

determine the success or the failure of Tanzania in realizing that vision (Hanson *et al*., 2004). In this study, the efficacy of health services and academic performance were investigated.

School health services can cover both the prevention and treatment of disease and malnutrition in a school setting (Snilstveit *et al.,* 2016). These services are designed to promote students' physical, cognitive, and social development. Effective school health services are broadly considered to be cost-effective. They build on existing health infrastructure and community partnerships, as well as a skilled workforce in schools (UNICEF, 2000). The course of a pupil's development arises from an interaction of congenital, family, cultural, and environmental factors. These and a wide range of other variables play a crucial role in cognitive development and a child's learning abilities. Cognitive performance is often related to physical health (Dewa & Lin, 2000). Thus, children who experience medical distress as a result of malnutrition are at risk for low academic achievement (Spernak *et al.,* 2006). Moreover, poor health impedes participation in daily school activities (Hanson *et al*., 2004).

Frequent absence, discomfort or pain, movement limitations, sleepiness, physical and psychological side effects of received medications among other factors limit students' abilities to engage in the education process (Fowler et al., 1992). In addition to the deleterious outcomes related to school functioning, children with medical conditions experience restrictions in developing critical emotional bonds with teachers (Needham et al., 2004). Furthermore, as a significant body of research has demonstrated, pupils' health predicts low educational level, social and economic inequalities, and behavior problems experienced into adulthood (Case et al., 2015; Needham *et al.,* 2004; Palloni, 2006).

Given the crucial role health occupies in a pupils' educational development, it is important for school psychologists to become responsible for leading efforts to improve students' health and consequently decrease the risk associated with various medical issues. Health behavior is closely related to academic achievement. Therefore, improving a child's physical health has the potential to be a valuable protective factor in the improvement of academic performance (Roberts et al., 2010. A child's physical health is associated with improved confidence, increased attention, reduction in health problems, improved social engagement, increased organization, and a host of potentially protective factors for students at risk for poor school outcomes (Sallis, 2010).

According to some scholars, the causal link between health services provided in schools and pupils' academic performance cannot yet be established. Yet, the preponderance of evidence supports the effectiveness of nutrition and physical activity interventions in enhancing academic outcomes and reducing the likelihood of obesity. Such services also have demonstrated positive changes in the reduction of sick days, improvement in overall health, school attendance, on- task behavior, and ability to sustain attention to instructional demands (Baxter *et al.,* 2011). These variables are also highly related to improved school performance. However, the direct influence of health services on pupils' academic achievement is not clear. Among the features and possible mediating variables that require further investigations are: the role of health services to students' academic achievement.

In Tanzania, infectious diseases, including HIV/AIDS and malnutrition are common health problems and non- communicable conditions, such as heart and circulatory diseases which are mostly affect the students and the community at large (Shaw, 2015). Officially, Tanzania claims to have a holistic, multidisciplinary and integrated approach to its primary health care, involving inter-sectorial collaboration and full community involvement. In accordance with the Ottawa

Charter and other WHO recommendations, the Tanzanian national health policy strongly emphasizes disease prevention and health promotion rather than curative care (Olusegun, 2017).

School health services in Tanzania date back to 1921, while the year 1967 marks the start of the independent Tanzania's Primary Health Care Strategy, based on whose definition of health, including children's health. Tanzania's current health system includes school-based health promotion as a part of a decentralized system. The guidelines for implementing the National School Health Services include an organizational chart at village, district, regional, zonal and national levels, and present job descriptions for school health services coordinators at all levels. *"Mpango wa Taifa wa Ukusanyaji wa Takwimu za Afya"* (MTUHA) (in English "Health Management Information System") is a national system for collection of statistical health data that health institutions all over the country have been required to use since 1995.

More than half (57%) of the Tanzanian population is under 20 years of age, and 70 to 80% of school-age children are enrolled in primary school (the number of boys and girls is nearly equal) (Gortmakers *et al.,* 2011). In secondary school, the percentage of children enrolled is reduced to less than 30%, and boys are in the majority. Thus, primary schools clearly represent an important arena for health promotion efforts targeting Tanzanian children (Gortmakers *et al.,* 2011). There is a growing body of evidence linking children's health and education; and the impact of school health and nutrition. In order for health education to produce behavior change, effective strategies, considerable instructional time, and well-prepared teachers are required. Despite the potential effectiveness and favorable perception of health education, there is gap between what health educators consider to be desired practice and actual current practice (Borge *et al.,* 2008).

Furthermore, while a large number of studies on the organization and implementation of school health services have been conducted in various countries, there is limited literature from Tanzania. The issue of Health services in schools is a practical education problem in developing countries including Tanzania. This problem is more common in lower and middle education levels and has been associated with the increased pupils' dropout rate, poor performance, truancy and gender disparity among school-age children (URT, 2004).

Studies worldwide have shown that when pupils received school health services they tend to be at school and concentrate in their studies. In Tanzania few studies carried out in schools have confirmed the influence of health services on pupils' academic performance. However, no such study has been carried in Geita Town Council. Determining the influence of health services on academic performance will help to create awareness and assess the need for intervention on the lack of the health services in Geita Town Council. Against this background, the current research study was set to investigate the influence of current school health services on pupils' academic performance in Geita Town Council.

1.1 Analytical and Theoretical Framework

The study was guided by the service delivery theory which is a theory focusing on how humans deliver service. It entails an understanding of how people work within systems to deliver services. People are a resource unlike any other in that their value and availability can be difficult to quantify. Theorists attempt to understand how to build the best system for the best services. The proponent of the Theory of Service Delivery was Hirsch and Miller (1974) whose aim was to ensure that binding rules for the operative processes are in existence. A variety of

circumstances may call the system into active operation. Forces either within the client or impinging upon him or her from outside the system, such as economic emergency or serious illness, have the potential to produce a significant need for services. This need becomes expressed as some degree of demand for service needed by the client in order to be capacitated and or enhanced to perform a required or assigned task.

The assumption was that the interaction between a service program and its clients or patients is at the heart of the service delivery process. The two sectors of the system, one representing the service program, the other representing the client or client population, are linked together through services that are rendered by the program in response to demands generated by the client. Health care and or health service delivery to people is a basic requirement. Students too require this essential service for their health and wellbeing at school particularly if the service impacts positively in their core duties; teaching and learning. The current research study is set to establish the current health services delivered to pupils in order to improve their academic performance. Thus, the theory is tending to be relevant to the study.

The service delivery theory was found to be relevant to this study in that it could be applied to develop a model for planning school health services. In this case pupil-centric service delivery became a pivotal element and (one of) the main objectives. Delivering health service to pupils involves having a real personal interact with them and meet their needs. For delivering health services to the pupils, the system designer must first consider the pupils involved. The people delivering the health services must be capable of interacting in a positive and effective manner. Pupils need quality health services to enhance their academic performance.

1.2 Conceptual Framework

The independent variable such as over the table medical administration, first line treatment, short term overnight observation referral services are the health service that are normally offered in schools. This, upon being intervened by the variables such as Stakeholders and the government to introduce the health services to schools, parents and guardians to incur health, keeping children in school, increase their ability to learn effectively, increase enrolment and attendance, alleviate short term-diseases, improve nutritional status and improve micronutrient status, would result into pupils' health care and thus, enhance their academic performance.

According to Shaw et al., (2015) Children who are unhealthy are at higher risk for school problems than students who are free from medical problems. Students with poor health have a higher probability of school failure, grade retention, and dropout. Given the crucial role health occupies in a students' educational development, it is important for school psychologists to become responsible for leading efforts to improve students' health and consequently decrease the risk associated with various medical issues. Health behavior is closely related to academic achievement.

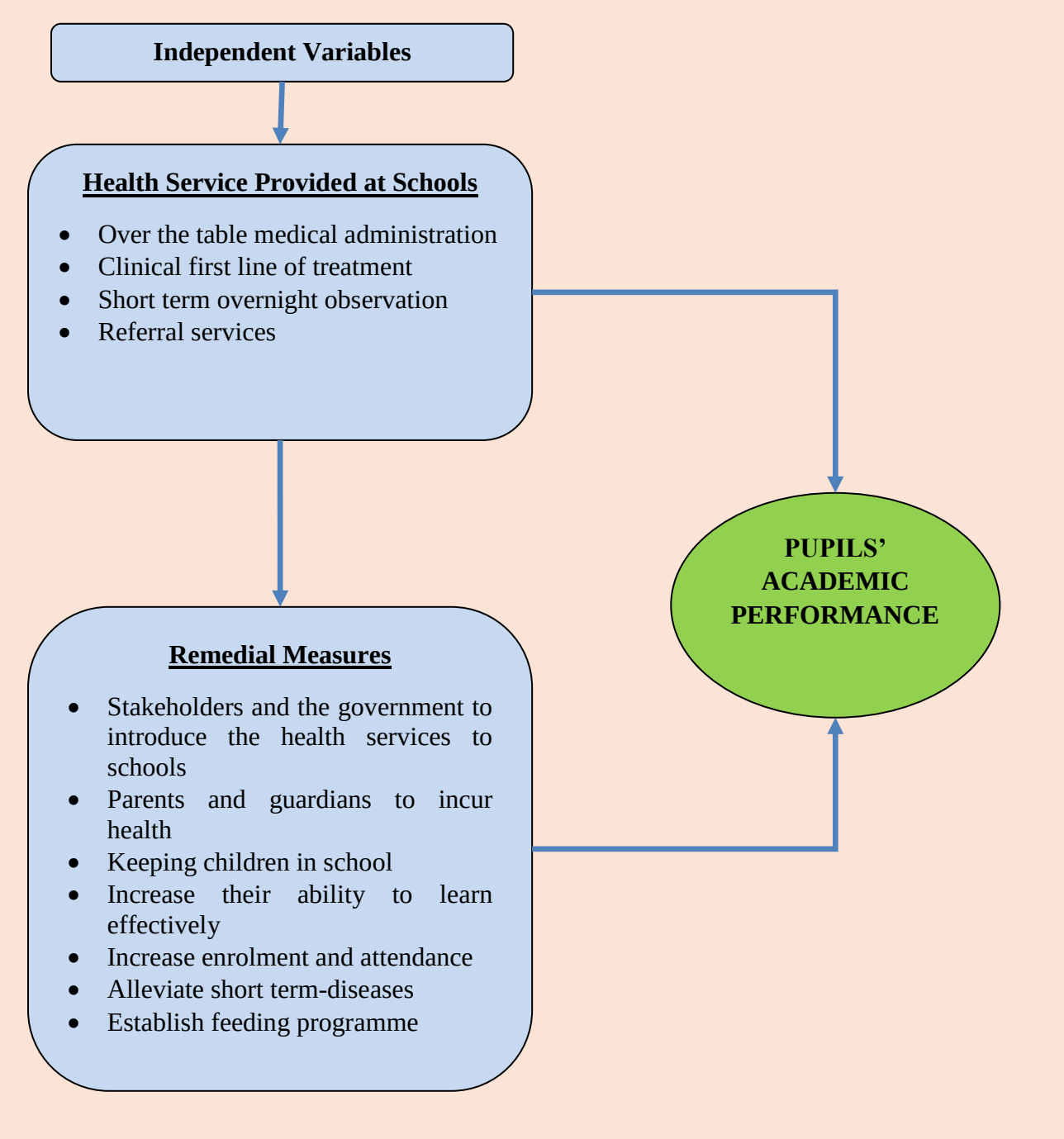

Figure 1 Conceptual framework for the school health services
Source: Modified by the researcher in this study, (2022)

2.0 Research Methods and Methodology

The study employed survey research design based on mixed research approach i.e., both qualitative and quantitative research approaches were used. It focused on investigating the existing situation over specific area and what was reported basically depended on the actual

findings of the study. The Reason for using this survey research design was to gather data without manipulation of the same and to establish the causal effects on health services provision against academic performance. The Gay and Airasian methods were used to determine the sample size of the study. A total of 34 respondents were selected i.e., seventeen head teachers and seventeen health teachers from seventeen public primary schools within Geita Town Council were selected. The data were collected through questionnaires and interviews to determine the current school health services provided the influence of the health services on pupils' academic performance. Moreover, validity of the data collection was tested using a pilot study. Reliability was tested by using Statistical Packages for Social Sciences (SPSS v.28). The Cronbach Coefficient Alpha was tested and gave the coefficient of 0.7 which was considered reliable. The quantitative data was analyzed using Statistical Packages for Social Sciences (SPSS) for producing descriptive statistics that gave tables of frequencies and percentages. Meanwhile qualitative data was coded thematically for easier narration.

3.0 Results and Discussion

The study sought to establish the influences of health services to pupils' academic performance in Public Primary schools. Table 1 below presents the summary of the respondents' views on the influence of health services on pupils' academic performance.

Table 1: Influence of Health Services to Pupils' Academic Performance (n=34)

Item(s)	Agree f(%)	Disagree f(%)	Total f(%)
Health Service impact on ranking of pupils' academic performance	25(74%)	9(26%)	34(100%)
Health to more than the absence of illness	34(100%)	0(0%)	34(100%)
The pupils with good physical health stand to perform well academically	20(59%)	14(41%)	34(100%)
Pupils with higher mental ability tend to achieve high academic performance	17(50%)	17(50%)	34(100%)
Health learning environment influence higher academic performance	30(88%)	4(12%)	34(100%)
Pupils with low psychological stress tend to perform better in academics	34(100%)	0(0%)	34(100%)
Pupils with poor health have a higher probability of low grades academically	34(100%)	0(0%)	34(100%)
Health services tend to promote good behavior description towards academic performance	34(100%)	0(0%)	34(100%)
Health services alleviate absenteeism	22(65%)	12(35%)	34(100%)
Students with balanced nutrition value have better academic performance	25(74%)	9(26%)	34(100%)

Source: Field Data, 2022

Table 1 above shows that, low psychological stress 34(100%); absence of illness 34(100%); availability of Health services 34(100%) were considered by respondents as the major factors which seemed to influence pupils' academic performance. On the other hand, sub items on pupils with poor health services 34(100%) was considered and associated by respondents as pupils having a higher probability of low grades academically.

Moreover, it was found that health learning environment 30(88%); Pupils with balanced nutrition 25(74%); the pupils with good physical health 20(59%); and Pupils with higher mental ability 17(50%) were also respondents' views on the factors that tend to influence high academic performance to pupils in schools. It is therefore, safe to conclude that, participants/respondents considered pupils with low psychological stress; absence of illness; availability of genuine Health services; Health learning environment; Pupils with balanced nutrition; pupils with good physical health; and Pupils with higher mental ability to be the major factors that seemed to influence pupils' academic performance in Public Primary Schools.

The findings from the table above indicate that respondents considered the sub items on Health services to pupils reduce the absence of illness (34(100%). When students receive health services which improves their health status, they tend to be more regular in school attendance. This view is supported by Shaw *et al*., (2015) who stated that children who are unhealthy are at risk of failing to attend to school than pupils who are free from medical problems. Pupils with poor health have higher probability of school failure, grade retention and dropout. Similarly, Pascoe *et al*., (2020) confirmed that academic stress can reduce academic achievement, decrease motivation and increase the risk of school dropout. Pupils with low psychological stress tend to perform better in academics, Pupils with poor health have a higher probability of low grades academically and Health services tend to promote good behavior description towards academic performance to have more influence on pupil's academic performance. This seems to point to the fact that absence of illness, low psychological stress, poor health and presence of health services either positively or negatively have influence in pupils' academic performance in schools.

Moreover, sub item on health learning environment 30(88%) was supported by different scholars. According to Usman (2019) and Shamaki (2015) learning environment is significant to promoting pupils' academic wellbeing. No wonder, 30(88%) of the respondents viewed learning environment to be influential in enhancing pupils' academic performance.

Findings on sub item on pupils with balanced nutrition 25(74%) was also regarded by respondents to have impact on pupils' performance. This item is in line with Asmare *et al*., (2018) who stressed that, nutrition is vital component of brain development while under nutrition is a major public health challenge affecting pupils' academic achievement and that chronic undernourished children attain lower scores on standardized achievement tests. In addition, the study result is consistent with the findings of Acham *et al*., (2012) who found that, school health services are essential in any country whether it was developed or developing countries. The primary assumption of school health services is that education and learning depend on good nutrition. School health and nutrition also determined factors that kept children out of school and reduced their ability to learn effectively (Save the children Report, 2007). Thus, it can be seen from the finding that, nutrition and education achievement cannot be separated. If children have to improve on their academic performance, they need to have good nutrition.

Findings on the sub item on availability of health service 25(74%) which impacting on pupils' academic performance was in tandem with Matingwina, (2018) and Centers for Disease Control and Prevention (CDC) (2005) on health services. He observed that, health has been seen as one of the key factors that influence academic performance. The importance of health on academic achievement was also emphasized by the Centers for Disease Control and Prevention (CDC) (2005) which recognized that the academic success of youth is strongly linked with their health.

This seems to be a safe observation given that pupils with poor health have a higher probability of school failure, grade retention and dropout.

Findings on the sub item health services alleviate absenteeism 22(65%) was in line with Kolbe (2019), and Matingwina (2018) who agreed that poor health causes academic setbacks and interferes with schooling. Their studies point to the fact that unhealthy pupils are conceivably at risk for decreased school functioning because of acute aggravations of the disease. But if school health services are provided for pupils, the services will appraise, protect, and promote health; and healthy pupils learn better. Roberts et al., (2010), suggested that school health services were mainly implemented with the purpose of achieving the following results; Increase enrolment and attendance, alleviate short term-diseases, improve nutritional status and improve micronutrient status and increase learner's performance. Besides this, a study by Felix (2011) in Tanzania showed that, due to presence of school health services, there was an increase of enrollment and improvement of attendance as well as pupils who disliked school began enjoying their studies. From these it is safe to conclude that health services provided at school can alleviate the problem of absenteeism, late-coming and undisciplined student behavior, and increase academic performance.

Findings on the sub item on pupils with low psychological stress 34(100%) which seemed to influence better in academics, agreed with the study conducted by Behere et al., (2011) who found that when the pressures exceed a person's ability to cope, the result is stress. And, prolonged stress can set up a cycle of distress and cut down the ability to cope with ordinary situations too. Stress wears and tears our bodies as we adjust to our continually changing environment; it has physical and emotional effects on us and can create positive or negative influence on us. Mundia, (2011) too observed that, pupils with psychological or mental health tend not to perform well in achievement tests.

Findings on the sub item on pupils with poor health having a higher probability of low grades academically 34(100%), was supported by Basch, (2010); Dilley, (2009), who emphasized that healthier students are better learners while health-related problems play a major role in limiting the motivation and ability to learn. Centers for Disease Control and Prevention. (2005), reported that health of pupils is linked to their academic achievement. Shaw *et al*., (2015), also observed that pupils with poor health have a higher probability of school failure, grade retention, and dropout. All these point to the link between pupils' health and academic performance. Hence, we can safely conclude that pupils with poor health have a higher probability of low grades academically. This means that health interventions that can positively affect both pupil's health and academic achievement must be a fundamental part of school reform.

Findings on the sub item on health services tending to promote good behavior description towards academic performance 34(100%), was confirmed by The World Health Organization (WHO), (2005) which observed that School health programmes can play a vital role in reducing the prevalence of health risk behaviors among young people and have a positive effect on academic performance. This points to a significant correlation between academic performance and health problems. The effects of such health problems, according to the school curricula address relevant health challenges in the country. include poor retention, school failure, grade retention, school dropout, absenteeism and poor concentration. This seems to suggest that the more health risks pupils have, the more likely it is that they also are at academic risk. This means that schools are in a unique position of educating pupils about life in general and more

specifically about diseases. Schools should create enabling environments, policies, and support services that promote pupil's health individually and collectively. Comprehensive school health services, which comprise multiple interventions, are said to positively contribute to the academic performance of pupils. It can be safely concluded that schools can be a context where pupils can learn and practice positive health behaviors within a health-promoting environment that enhances academic performance. Schools should develop integrated health interventions because of their proven effectiveness in promoting healthy lifestyles among pupils.

Findings on pupils with good physical health standing to perform well academically 20(59%), supported previous studies by Kohl & Cook, (2013) and Bellar (2014) which contended that physical activity may have a positive effect on overall academic performance. As a matter of fact, basic cognitive functions related to attention and memory are enhanced by physical activity. This points to a strong relation between physical fitness and academic achievement. This could imply that there is an urgent need for active strategies to promote physical activities with effect of fitness and disease prevention as well as a strong interest, entertainment and flexibility. Young people need to participate in physical activities during the school day and/or after-school hours and/or in the before-school period in order to enhance academic performance.

Findings on the sub item on pupils with higher mental ability tending to achieve high academic performance 17(50%), confirmed earlier researches by Shairi (2004) who found that there is significant correlation between mental health and educational achievements. This points to the fact that mental health factors and stress factors can affect the academic performance problems among pupils. It seems that pupils, who have a better mental health status, have a better educational performance as well. It can be safely concluded that the higher the mental health of a pupil, the higher the educational performance.

On the other hand, respondents disagreed on the following services as being offered in schools; pupils with higher mental ability tending to achieve high academic performance 17(50%); The pupil's good physical health stands to perform well academically 14(41%); Health services alleviate absenteeism 12(35%); Health service impact ranking of pupils' academic performance 9(26%) and Health learning environment influence higher academic performance 4(12%). It could be possible that the respondents are not familiar with the influence of these health services on academic achievements or these services are not available in their schools.

4.0 Conclusion and Recommendations for Improvement

Based on the study findings it can be concluded that the primary health services were available to schools, and that there is a significant link between health services and academic performance even though other factors are necessary for academic achievement. Therefore, school management deserves to be aware of the current knowledge of the effect that different health conditions and unhealthy behaviors can have on academic outcomes. Furthermore, schools should develop integrated health interventions because of their proven effectiveness in promoting healthy lifestyles among pupils.

5.0 Suggestions for further study

Based on the research findings, further research is needed in the area of;

1) Assess the quality of health services provided in schools
2) Assess local health workers' opinions about health, local health problems and risk factors among school children.
3) Assess the extent to which local health workers are engaged in school health activities

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