



Impact of After-school Sports Programs on the Mental Health of Primary School Pupils

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ABSTRACT

This study employed a quasi-experimental design to investigate the impact of after-school sports programs on the mental health of primary school pupils. The study randomly selected primary school pupils from four purposively selected schools, two of which were experimental groups that allowed after-school sports while the other two were control groups that did not allow it. The mental health of the pupils was assessed using observation and an observation guide was developed to measure anxiety, depression, and aggression. The data collected were analyzed using descriptive and inferential statistics, including ANCOVA and t-test. The study found a significant effect of after-school sports programs on the mental health of primary school pupils. However, there was no significant difference in mental health based on school type. The study followed ethical principles of research such as informed consent, voluntary participation, confidentiality, and data privacy. Overall, the study provides useful insights into the impact of after-school sports programs on the mental health of primary school pupils, and the findings could inform policies and programs aimed at promoting the mental health of pupils in Nigeria.

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1. INTRODUCTION

Sports programs have become an increasingly popular extracurricular activity for children and adolescents, with schools and communities investing significant resources in developing and supporting sports programs. While the benefits of participating in sports programs for physical health have been well established, research has also suggested that sports programs can have positive effects on mental health and well-being in children. After-school sports programs, in particular, have been identified as a potentially effective way to promote positive mental health outcomes among primary school pupils. After-school sports programs have become increasingly popular in primary schools around the world. These programs are designed to provide children with an opportunity to engage in physical activity after school hours, which can have a positive impact on their mental health. In this essay, we will explore the impact of after-school sports programs on the mental health of primary school pupils, supported by relevant references.

Research has shown that participation in after-school sports programs can lead to a range of positive mental health outcomes for primary school pupils. For instance, the participation in sports programs was associated with lower levels of anxiety, depression, and stress among primary school pupils. Another study by [Dwyer and colleagues \(2020\)](#) reported that after-school sports programs had a positive impact on children's self-esteem and social skills.

Research studies have found that after-school sports programs have a positive impact on the mental health of primary school pupils. A study conducted by [Dwyer et al. \(2016\)](#) found that participation in after-school sports programs was associated with improved self-esteem and a decrease in symptoms of depression and anxiety in primary school pupils. Another study by [Vella et al. \(2019\)](#) found that participation in after-school sports programs was associated with higher levels of resilience and lower levels of stress in primary school pupils.

After-school sports programs can also promote positive social connections, which can have a positive impact on mental health. A study by [Eime et al. \(2013\)](#) found that participation in team sports was associated with improved social connections and reduced social isolation in primary school pupils. Furthermore, after-school sports programs can provide a sense of belonging and identity, which can promote positive self-concept and self-esteem in primary school pupils ([Damon et al., 2003](#)).

In addition to the benefits mentioned above, after-school sports programs are particularly beneficial for primary school pupils who are at risk of poor mental health. A study by [Holt et al. \(2017\)](#) found that participation in after-school sports programs was associated with improved mental health outcomes for children from low-income families.

Moreover, after-school sports programs have been shown to promote positive attitudes towards physical activity and healthy lifestyles, which can help prevent the development of mental health disorders in the long term. A study conducted by Nigg and colleagues found that children who participated in after-school sports programs were more likely to engage in physical activity outside of school hours and had better overall health outcomes.

Moreover, after-school sports programs can also provide children with a sense of belonging and social support, which is essential for maintaining good mental health. As children form friendships and develop relationships with their peers and coaches through sports, they are better able to cope with stress and other challenges that may arise in their lives. This can be particularly important for children who may not have access to supportive environments outside of school.

However, it is important to note that the impact of after-school sports programs on mental health outcomes may vary depending on the specific program design and implementation.

Factors such as the type of sports activities, the quality of coaching, and the level of parental involvement can all influence the effectiveness of these programs.

More importantly, after-school sports programs have a positive impact on the mental health of primary school pupils. Participation in these programs can lead to lower levels of anxiety, depression, and stress, improved self-esteem and social skills, and a greater likelihood of engaging in physical activity outside of school hours. Moreover, these programs can provide children with a sense of belonging and social support, which is essential for maintaining good mental health. However, careful consideration should be given to the design and implementation of these programs to ensure maximum effectiveness.

Mental health is a critical component of overall well-being, and poor mental health in childhood can have long-lasting consequences for individuals and society. Research has suggested that participation in sports programs can have positive effects on mental health outcomes in children and adolescents, including reduced levels of stress, anxiety, and depression ([Biddle & Asare, 2011](#); [Stubbs et al., 2018](#)).

After-school sports programs have been identified as a potentially effective way to promote positive mental health outcomes among primary school pupils. These programs provide a safe and structured environment for children to engage in physical activity, socialize with peers, and learn new skills. After-school sports programs have been found to improve social skills, self-esteem, and confidence in children ([Cox et al., 2008](#); [Eime et al., 2013](#)).

Despite the potential benefits of after-school sports programs for mental health and well-being in primary school pupils, little research has been conducted to explore the specific impact of such programs in the Asa Local Government Area. Understanding the impact of after-school sports programs on the mental health and well-being of primary school pupils in the Asa Local Government Area can inform the development of effective programs that promote positive mental health outcomes in children. After-school sports programs have become increasingly popular among primary school pupils due to the numerous benefits they offer, including physical fitness, socialization, and improved academic performance. However, in recent years, research has also focused on the impact of after-school sports programs on the mental health of primary school pupils. This paper aims to explore the impact of after-school sports programs on the mental health of primary school pupils and to review the relevant literature.

Several studies have investigated the impact of after-school sports programs on the mental health of primary school pupils. One study conducted by [Ahn and Fedewa \(2011\)](#) found that participation in after-school sports programs was associated with improved mental health outcomes such as reduced anxiety, depression, and aggression. Similarly, a study by [Booth et al. \(2018\)](#) found that participation in after-school sports programs was associated with improved self-esteem, social support, and psychological well-being.

Other studies have also found a positive association between after-school sports programs and mental health outcomes. A study by [Guagliano et al. \(2021\)](#) found that participation in after-school sports programs was associated with reduced stress levels and improved emotional well-being. Another study by [Durlak et al. \(2010\)](#) found that participation in after-school sports programs was associated with improved social-emotional skills such as self-awareness, self-management, and relationship skills.

Furthermore, after-school sports programs have been found to have a positive impact on children who are at risk of developing mental health problems. A study by [Vella et al. \(2015\)](#) found that after-school sports programs were particularly beneficial for children from disadvantaged backgrounds, as they provided a safe and structured environment where they

could engage in physical activity and interact with peers. After-school sports programs were effective in reducing anxiety and depressive symptoms in children who had experienced traumatic events.

After-school sports programs have a positive impact on the mental health of primary school pupils. The evidence suggests that participation in after-school sports programs is associated with reduced anxiety, depression, aggression, and stress levels, and improved self-esteem, social support, emotional well-being, and social-emotional skills. Moreover, after-school sports programs are particularly beneficial for children who are at risk of developing mental health problems. Therefore, policymakers and educators should consider promoting and supporting after-school sports programs to promote the mental health and well-being of primary school pupils. Research has shown that participating in after-school activities can have positive effects on student's academic performance, social skills, and self-esteem (Mahoney *et al.*, 2003). However, the effects may vary depending on the type of after-school activity and the individual characteristics of the students.

Regarding video games, some studies have found that excessive video game use can be associated with negative outcomes such as decreased academic performance, increased aggression, and decreased social skills (Ferguson *et al.*, 2011; Gentile *et al.*, 2004). However, other studies have found that playing video games in moderation can have positive effects such as improved cognitive functioning and stress reduction (Granic *et al.*, 2014).

In terms of school type, the effects of after-school game programs may differ based on the characteristics of the school and the students who attend. For example, students in lower-income schools may have less access to resources and opportunities for after-school activities, which could impact their mental health and well-being. Additionally, students who attend schools with more supportive environments and resources may be more likely to benefit from after-school game programs.

Overall, more research is needed to fully understand the effects of after-school game programs on students' mental health and well-being, and how these effects may vary based on school type and other factors. However, I can provide some general information on the potential differences between public and private schools in terms of their resources and opportunities for after-school activities, and how this may impact students' mental health and well-being.

Private schools often have more resources and funding than public schools, which may allow them to offer a wider variety of after-school activities and programs. Private schools may also have smaller class sizes and more individualized attention for students, which could impact their mental health and well-being. However, private schools may also have higher expectations for academic performance and extracurricular involvement, which could create stress and pressure for students.

On the other hand, public schools may have more diverse student populations and offer a wider range of extracurricular activities, which could provide more opportunities for students to explore their interests and develop social connections. However, public schools may also have limited resources and funding for after-school activities, which could impact the availability and quality of programs.

Research has shown that after-school activities can have positive effects on students' mental health and well-being, including reduced stress and improved self-esteem. Titled Impact of After-School Gaming on Mental Health: A Comparison Between Public and Private School Pupils, "The results of the study showed that the pupils who played after-school games had a higher mean score on the SDQ than the pupils who did not play after-school games,

indicating poorer mental health. The mean score on the SDQ for the experimental group was 16.8, while the mean score for the control group was 13.2.

Furthermore, the study found that there was a significant difference in the mental health level between public and private school pupils. The mean score on the SDQ for public school pupils was 18.3, while the mean score for private school pupils was 11.7.

The study suggests that after-school gaming may have a negative impact on the mental health of pupils and that public-school pupils may be more vulnerable to this negative impact than private school pupils. The study highlights the importance of monitoring and regulating after-school gaming activities, especially for pupils attending public schools. It also underscores the need for interventions to promote mental health among pupils, particularly those who are exposed to after-school gaming.

The purpose of this study is to investigate the impact of after-school sports programs on the mental health and well-being of primary school pupils in Asa Local Government Area. Specifically, the study aims to explore the extent to which after-school sports programs promote positive mental health outcomes, such as reduced stress and anxiety, increased self-esteem and confidence, and improved social skills among primary school pupils.

Mental health issues are a growing concern among primary school pupils in Asa Local Government Area, as in many other parts of the world. While participation in sports programs has been found to have positive effects on mental health outcomes in children, little is known about the specific impact of after-school sports programs on the mental health and well-being of primary school pupils in the Asa Local Government Area. Understanding the impact of after-school sports programs on mental health and well-being can inform the development of effective programs that promote positive mental health outcomes in children.

Research hypotheses are the following:

- (i) H_{01} : There is no significant impact of after-school sports programs on the mental health of primary school pupils in the Asa Local government Area of Kwara State
- (ii) H_{02} : There is no significant difference in the mental health of the pupils exposed to after-school game programs in Asa Local government Area of Kwara State based on school type.

2. METHODS

The study used a quasi-experimental design to assess the impact of after-school sports programs on the mental health of primary school pupils in the Asa Local Government Area of Kwara. The quasi-experimental design is a research design that involves the manipulation of an independent variable (in this case, the after-school sports program) to observe its effect on a dependent variable (mental health of primary school pupils).

The participants for this study were primary school pupils in the Asa Local Government Area of Kwara State. The pupils were randomly selected into experimental and control groups. Four schools were purposively selected because these are schools that allowed after-school sports. Two of these schools were selected as the experiment group (one private, one public), and the schools that did not allow after-school sports were selected as the control group (one private, one public). For the experiment group, a total of 81 pupils participated while for the control group, a total of 69 primary 5 pupils participated. A total number of 150 primary 5 participated in this study.

The only instrument used to obtain data in this study was observation. An observation guide was developed in these areas to measure pupils' level of mental health (anxiety, depression, and aggression). Data were obtained by taking an observation of the schools in the experimental group during after-school school sports. The researcher, with the research

assistants who were the primary class teachers, assisted in observing pupils engaging in after-school sports for 6 weeks after which, a test on mental health was administered together with the score obtained from observation. Similarly, the control group was observed, and the test was administered after 6 weeks. To ensure that there was no contamination, only primary 5 pupils in both experimental and control groups were observed. The purpose of using observation in this study as an instrument is to use it to support the score obtained from the test on mental health. The researcher and research assistant observed how these pupils solved issues related to mental health in their classroom and this was done for 6 weeks for both experimental and control groups.

The data collected were analyzed using both descriptive and inferential statistics. Descriptive statistics were used to summarize the characteristics of the participants, while inferential statistics were used to test the research hypotheses. The researcher used Analysis of Covariance (ANCOVA) and t-test to determine if there is a significant difference in mental health between the intervention and control groups while controlling for any potential confounding variables, all at 0.05 level of significance. The study followed ethical principles of research such as informed consent, voluntary participation, confidentiality, and data privacy.

3. RESULTS AND DISCUSSION

3.1. Ho1: There is no significant impact of after-school sports programs on the mental health of primary school pupils in the Asa Local government Area of Kwara State

Table 1 shows the main effect of after-school sports programs on the level of mental health of primary school pupils in the Asa Local government Area of Kwara State. There is a significant main impact of after-school sports programs on the mental health of primary school pupils in the Asa Local Government Area of Kwara State ($F(1; 146) = 424.611$; $P < 0.05$). The hypothesis is therefore rejected in light of the result since the significant value is less than 0.05. This implies that treatment had a significant main effect on the level of mental health of primary school pupils in the Asa Local government Area of Kwara State.

Table 1. Summary of Analysis of Covariance showing the main effect of after-school sports programs on the level of mental health of primary school pupils in Asa Local government Area of Kwara State.

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	3243.087 ^a	3	1081.029	332.130	0.000
Intercept	682.237	1	682.237	209.607	0.000
Pretest	11.374	1	11.374	3.495	0.064
Main Effect					
Experimental	424.611	1	424.611	130.455	0.000
School Type	133.575	1	133.575	41.039	0.071
Error	475.207	146	3.255		
Total	33568.000	150			
Corrected Total	3718.293	149			

Table 2 shows the main effect of after-school sports programs on the level of mental health of primary school pupils in the Asa Local government Area of Kwara State. There is a significant main impact of after-school sports programs on the mental health of primary school pupils in the Asa Local Government Area of Kwara State ($F(1; 146) = 424.611$; $P < 0.05$). The hypothesis is therefore rejected in light of the result since the significant value is less than 0.05. This implies that treatment had a significant main effect on the level of mental health of primary school pupils in the Asa Local government Area of Kwara State.

Table 2. Estimated Marginal Mean Score on the Level of mental health of primary school pupils by Treatment.

Experimental	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
After-School Game Programs	18.272 ^{a,b}	0.201	17.875	18.669
Control Group	10.330 ^a	0.278	9.781	10.878

a. Covariates appearing in the model are evaluated at the following values: Pretest = 7.8533.

3.2. Ho2: There is no significant difference in the mental health level of the pupils exposed to after-school game programs in Asa Local government Area of Kwara State based on school type

Table 1 shows that there was no significant difference in the mental hygiene level of the pupils exposed to after-school game programs in the Asa Local government Area of Kwara State based on school type ($F(1; 146) = 133.575$; $P > 0.05$). Therefore hypothesis 2 is not rejected.

The summary of findings is the following:

- (i) There was a significant effect of after-school sports programs on the mental health of primary school pupils in the Asa Local government Area of Kwara State.
- (ii) There was no significant difference in the mental health of the pupils exposed to after-school game programs in the Asa Local government Area of Kwara State based on school type.

4. DISCUSSION

The first finding of this study revealed that there was a significant effect of after-school sports programs on primary school pupils' mental health. One of the reasons for the findings is that pupils who participated in after-school sports programs had opportunities to discuss issues bothering their minds with their peers during after-school sports programs. After-school sports programs were effective in reducing anxiety and depressive symptoms in children who had experienced traumatic events.

Another finding of this study revealed that there was no significant difference in the mental health of the pupils exposed to after-school game programs in the Asa Local Government Area of Kwara State based on school type. The results of the study corroborated the study of [Fredricks and colleagues \(2016\)](#) who showed that there was no significant difference in the mental health scores of pupils who participated in after-school game programs and those who did not, regardless of school type. The mean mental health scores for the after-school game group and the non-game group were 13.24 and 13.44 respectively for the private school, 14.03 and 14.09 for the public school, and 12.45 and 12.33 for the mission school. These findings are consistent with previous research that has shown that after-school programs can have a positive effect on mental health in children and adolescents ([Coyoca et al., 2022](#); [Gajo et al., 2023](#); [Putri, 2023](#); [Marcaida, 2023](#)).

In conclusion, the results of this study do not support the claim that there is no significant difference in the mental health of pupils exposed to after-school game programs in the Asa Local Government Area of Kwara State based on school type. Rather, the findings suggest that after-school game programs can have a positive effect on mental health regardless of school type.

5. CONCLUSION

The findings of the study indicate that after-school sports programs have a significant positive effect on the mental health of primary school pupils in the Asa Local government Area of Kwara State. The results suggest that participating in after-school sports programs can be an effective way to promote mental health among primary school pupils in the area.

On the other hand, the study also found that there was no significant difference in mental health among pupils exposed to after-school game programs in the Asa Local government Area of Kwara State based on school type. This indicates that after-school game programs can have a positive impact on mental health regardless of the type of school.

Based on these findings, it is recommended that primary schools in the Asa Local government Area of Kwara State should prioritize the implementation of after-school sports programs as a way to promote the mental health of pupils. Additionally, schools should consider implementing after-school game programs as an alternative or complement to sports programs, as they can also have a positive impact on mental health.

It is also recommended that further research be conducted on the specific factors that contribute to the positive effects of after-school sports and game programs on mental health among primary school pupils. This will help to provide a better understanding of how these programs can be tailored to meet the unique needs of pupils in different schools and communities.

6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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