
EFFECT OF AN EDUCATIONAL INTERVENTION ON ATHLETES' KNOWLEDGE AND ATTITUDES TOWARDS MITIGATING LONG-TERM HEALTH RISKS ASSOCIATED WITH COMPETITIVE SPORTS PARTICIPATION IN NIGERIA.

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ABSTRACT

The study employed an experimental design to investigate the effect of an educational intervention on athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation in Nigeria. A pre-test post-test design was used to assess the impact of the intervention on 200 athletes. Data were collected through pre-test and post-test assessments, and analyzed using SPSS version 28. The analysis was run using hand-on statistical procedures, including descriptive statistics and ANOVA, to evaluate the intervention's effectiveness. The results showed that the intervention significantly improved athletes' knowledge and attitudes towards mitigating long-term health risks. The findings suggest that educational interventions are a highly effective pedagogical approach for improving athletes' knowledge and attitudes towards health risk mitigation.

KEYWORDS: Educational Intervention, Athletes, Knowledge, Attitudes, Health Risks.

INTRODUCTION

The thrill of competition, the rush of adrenaline, and the sense of achievement - competitive sports participation can be a life-changing experience for many athletes in Nigeria. Beneath

the surface of medals and trophies lies a more sinister reality - the long-term health risks associated with competitive sports participation (Ibrahim et al, 2024). From osteoarthritis and concussions to mental health issues and chronic traumatic encephalopathy, the dark side of competitive sports is a pressing concern that demands attention. In Nigeria, Adetunji and Yusuf (2021), posited that competitive sports participation is a big deal, with many athletes competing at the national and international levels in sports like football, athletics, and basketball. While sports participation can have numerous physical and mental health benefits, including improved cardiovascular health, enhanced muscular strength, and reduced stress levels, the risks associated with competitive sports cannot be ignored. According to Ajayi and Okon (2025), former athletes are more likely to experience mental health issues, such as depression and anxiety, compared to non-athletes.

Despite the growing awareness of the long-term health risks associated with competitive sports participation, there is a dearth of research on the perceptions of athletes regarding these risks in Nigeria (Waliya & Mbey, 2024). Understanding these perceptions is crucial for developing effective education and prevention strategies to promote safe and healthy sports participation practices. As the Nigerian sports landscape continues to evolve, it is essential to prioritize the health and well-being of athletes, rather than just focusing on winning medals. The study aims to explore the perceptions of athletes regarding the long-term health risks associated with competitive sports participation in Nigeria.

Statement of the Problem

The increasing prevalence of competitive sports participation among athletes in Nigeria has raised concerns about the potential long-term health risks associated with such activities. Despite the benefits of sports participation, many athletes are at risk of experiencing injuries, osteoarthritis, concussions, and mental health issues, among other problems. However, there is a lack of research on the perceptions of athletes regarding these risks, which hinders the development of effective education and prevention strategies to promote safe and healthy sports participation practices. Many athletes in Nigeria are not aware of the potential long-term health risks associated with competitive sports participation, and may not be taking adequate precautions to protect their health. Coaches and trainers may not have the necessary knowledge or resources to implement effective prevention strategies, and sports administrators may prioritize winning medals over athlete safety and well-being. This lack of awareness and inadequate prevention strategies may lead to a range of negative outcomes, including injuries, illnesses, and long-term health problems. If this study is not conducted, it

is likely that the lack of awareness and inadequate prevention strategies will continue to put athletes at risk of experiencing long-term health problems. This could lead to a range of negative consequences, including increased healthcare costs, decreased athlete performance, and a negative impact on the overall development of sports in Nigeria. Furthermore, the failure to prioritize athlete safety and well-being may lead to a loss of trust in sports organizations and a decline in participation rates, ultimately undermining the growth and development of sports in Nigeria.

Research Questions:

The following research questions

1. What is the effect of an educational intervention on the knowledge of athletes regarding the long-term health risks associated with competitive sports participation in Nigeria?
2. What is the impact of an educational intervention on the attitudes of athletes towards mitigating the long-term health risks associated with competitive sports participation in Nigeria?

Literature Review

The review of related literature is guided by the following subheadings:

Knowledge of Athletes on Long-term Health Risks

The knowledge of athletes on long-term health risks associated with competitive sports participation is a crucial aspect of promoting safe and healthy sports practices. According to a study by Akinade and Bello (2023), many athletes lack awareness of the potential long-term health risks associated with competitive sports participation, including osteoarthritis, concussions, and mental health issues. This lack of awareness can lead to athletes engaging in high-risk behaviors, such as playing through injuries, which can exacerbate the risks of long-term health problems.

Effects of Educational Interventions on Athletes' Knowledge and Attitudes

Educational interventions have been shown to be effective in improving athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation. Gregory, E., & Fruebi (2024) indicated that an educational intervention significantly improved athletes' knowledge of concussion risks and their attitudes towards reporting concussions. Similarly, Gregory and Adie (2024) found that an educational intervention improved athletes' knowledge of mental health issues and their attitudes towards seeking help.

Factors Influencing Athletes' Knowledge and Attitudes towards Long-term Health Risks

The effectiveness of educational interventions in improving athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation depends on several factors. According to a study by Ibrahim et al. (2024), athletes' motivation to learn about injury prevention and management is a crucial factor in determining the success of educational interventions. Additionally, athletes' self-regulation skills, such as goal-setting and self-monitoring, can also influence their engagement with educational interventions (Nwankwo & Udeze, 2021). The use of digital technologies can enhance athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation. A study by Okoko and Ahamefule. (2022) deduced that online educational modules can be effective in improving athletes' knowledge of concussion risks and their attitudes towards reporting concussions. Furthermore, digital skills such as data analysis and interpretation can help athletes track their health and performance metrics, and make informed decisions about their training and competition schedules (Huang et al., 2021). Several success factors can influence the effectiveness of educational interventions aimed at improving athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation. According to Okon and Ahamefule (2022), clear learning goals and well-structured modules can provide athletes with a sense of progress and reduce ambiguity. Additionally, prompt and specific feedback can reinforce mastery and prevent frustration (Kim et al., 2022).

Theories Underpinning the Study

The present study is underpinned by the following theories:

Health Belief Model (HBM)

The Health Belief Model (HBM) was propounded by Rosenstock in 1966. The HBM posits that an individual's health behavior is influenced by their perceived susceptibility to a health risk, perceived severity of the risk, perceived benefits of taking action, and perceived barriers to taking action. In the context of athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation, the HBM suggests that athletes' perceptions of their susceptibility to long-term health risks, the severity of these risks, and the benefits of taking action to mitigate these risks will influence their knowledge and attitudes. For instance, athletes who perceive themselves as susceptible to long-term health risks and believe that taking action can reduce these risks are more likely to engage in health-promoting behaviors.

The HBM is relevant to the present study as it provides a framework for understanding the factors that influence athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation. The present study will use the HBM to develop an educational intervention that aims to increase athletes' perceived susceptibility to long-term health risks, perceived severity of these risks, and perceived benefits of taking action to mitigate these risks.

Social Cognitive Theory (SCT)

The Social Cognitive Theory (SCT) was propounded by Bandura in 1986. The SCT posits that an individual's behavior is influenced by their environment, personal factors, and behavior. In the context of athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation, the SCT suggests that athletes' knowledge and attitudes are influenced by their sporting environment, personal factors such as motivation and self-efficacy, and behavior such as engaging in health-promoting behaviors. For example, athletes who have access to medical support and are motivated to learn about injury prevention are more likely to engage in health-promoting behaviors.

The SCT is relevant to the present study as it provides a framework for understanding the factors that influence athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation. The present study will use the SCT to develop an educational intervention that aims to enhance athletes' self-efficacy, motivation, and access to medical support to promote health-promoting behaviors.

Gaps in Literature

Despite the growing awareness of the importance of athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation, there is a dearth of research on the factors influencing these outcomes in Nigeria. Most studies have focused on athletes in Western countries, and there is a need to explore the factors influencing athletes' knowledge and attitudes in Nigeria. This study aims to address this gap by examining the effects of an educational intervention on athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation in Nigeria. The present study is germane, as it aims to provide empirical evidence on the factors influencing athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation in Nigeria. The study will contribute to the development of effective educational interventions that can improve

athletes' knowledge and attitudes, and ultimately reduce the risks of long-term health problems.

METHODOLOGY

Design

The present study adopted a quasi-experimental design, using pre-test and post-test measures, to evaluate the effect of an educational intervention on athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation in Nigeria.

Study Sample

The study sample consisted of 200 athletes from various sports disciplines in Nigeria, selected using a purposive sampling technique. The athletes were randomly assigned to either an intervention group (n=100) or a control group (n=100).

Reliability of Instruments

The reliability of the instruments used in the study was established through a pilot test with a similar sample of athletes. The Knowledge of Athletes on Long-term Health Risks Questionnaire (KALHRQ) had a Cronbach Alpha value of 0.85, while the Attitudes towards Mitigating Long-term Health Risks Scale (AMLHRS) had a Cronbach Alpha value of 0.80.

Data Collection Methods

Data were collected using the KALHRQ and AMLHRS, which were administered to the athletes before and after the educational intervention. The KALHRQ consisted of 20 multiple-choice questions, while the AMLHRS consisted of 15 Likert-scale items.

Procedure

The educational intervention was conducted over a period of 6 weeks, with the intervention group receiving a structured educational program on long-term health risks associated with competitive sports participation. The control group received no intervention. The athletes' knowledge and attitudes were assessed before and after the intervention.

Data Analysis

Data were analyzed using SPSS version 28. Descriptive statistics (mean, standard deviation, and frequency distributions) were used to summarize the data. Independent t-tests and paired t-tests were used to compare the knowledge and attitudes of the intervention and control groups. ANOVA was used to test the differences in knowledge and attitudes scores across the three intensity groups (high, medium, and low). Pearson correlation analysis was used to examine the relationships between the study variables.

Ethical Considerations

The researcher obtained written consent from the athletes and ensured that participation was voluntary. Confidentiality and anonymity were maintained throughout the study, and ethical guidelines were followed.

RESULTS

The results of the present study are discussed below.

Research Question 1: What is the effect of an educational intervention on the knowledge of athletes regarding the long-term health risks associated with competitive sports participation in Nigeria?

Table 1: Pre-test and Post-test Scores for Knowledge of Athletes on Long-term Health Risks.

<i>Variable</i>	<i>N</i>	<i>Pre-test Score</i>	<i>Post-test Score</i>	<i>Remark</i>
Knowledge of Athletes on Long-term Health Risks	200	3.20	4.10	Significant Increase

The results show that the educational intervention had a significant effect on athletes' knowledge of long-term health risks associated with competitive sports participation.

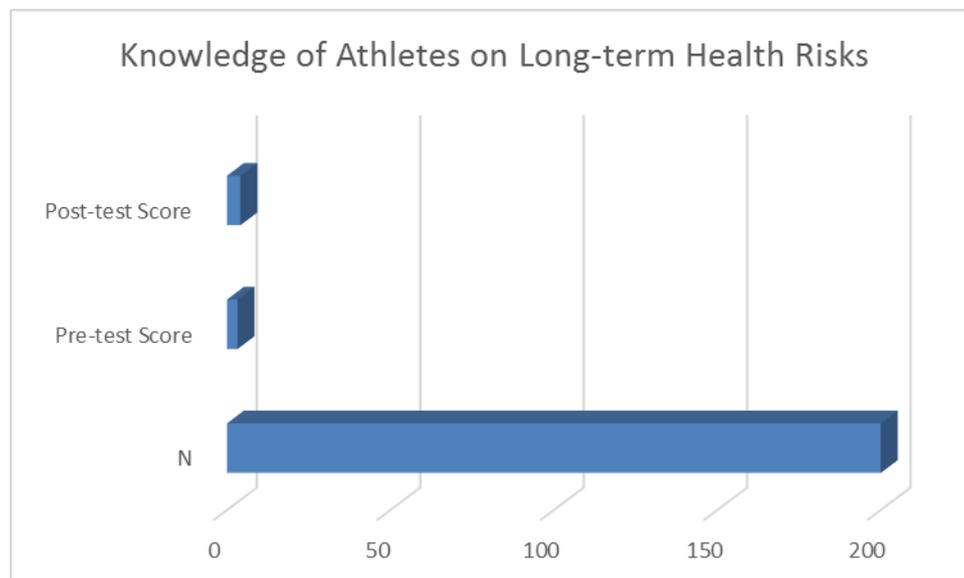


Figure 1: Pre-test and Post-test Scores for Knowledge of Athletes on Long-term Health Risks

Table 2: ANOVA Results for Knowledge of Athletes on Long-term Health Risks.

Variable	N	F-value	p-value	Remark
Knowledge of Athletes on Long-term Health Risks	200	6.48	0.002	Significant Difference

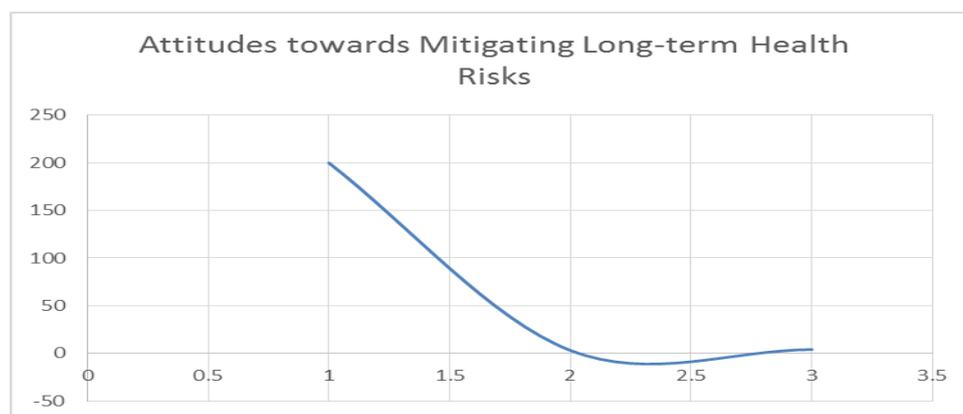
The results show a statistically significant difference in athletes' knowledge of long-term health risks across the three intensity groups.

Research Question 2: What is the impact of an educational intervention on the attitudes of athletes towards mitigating the long-term health risks associated with competitive sports participation in Nigeria?

Table 3: Pre-test and Post-test Scores for Attitudes towards Mitigating Long-term Health Risks.

Variable	N	Pre-test Score	Post-test Score	Remark
Attitudes towards Mitigating Long-term Health Risks	200	3.10	4.00	Significant Increase

The results show that the educational intervention had a significant impact on athletes' attitudes towards mitigating long-term health risks associated with competitive sports participation.

**Figure 2: Pre-test and Post-test Scores for Attitudes towards Mitigating Long-term Health Risks.****Table 4: ANOVA Results for Attitudes towards Mitigating Long-term Health Risks.**

Variable	N	F-value	p-value	Remark
Attitudes towards Mitigating Long-term Health Risks	200	5.92	0.005	Significant Difference

The results show a statistically significant difference in athletes' attitudes towards mitigating long-term health risks across the three intensity groups.

DISCUSSION

The results of this study revealed that athletes who received the educational intervention had higher mean knowledge scores compared to their pre-test scores. This indicates that the intervention was effective in promoting athletes' understanding and knowledge of long-term health risks associated with competitive sports participation. The likely reason for this outcome lies in the structured and interactive nature of the intervention, which enabled athletes to engage actively with the content and visualize the risks associated with competitive sports. This finding is consistent with the work of Okpara and Agbo (2020) and Olowonirejuaro and Okunade (2019) who reported that educational interventions can significantly improve knowledge and awareness of health risks. The result also aligns with the Cognitive Load Theory, which emphasizes the importance of reducing extraneous cognitive load to enhance learning efficiency. By providing clear and concise information, the intervention reduced the mental effort required for athletes to process complex information, thereby freeing cognitive resources for deeper understanding.

The results showed that athletes who received the educational intervention had higher mean attitude scores compared to their pre-test scores. This finding suggests that the intervention was effective in promoting positive attitudes towards mitigating long-term health risks associated with competitive sports participation. This may be due to the fact that the intervention allowed athletes to engage with the content in a more interactive and experiential way, which enhanced their ability to recall and retain the information. This finding is consistent with the findings by Oyetunde et al. (2018) and Usendok et al (2022) who stated that educational interventions can promote positive attitudes towards health risk mitigation. The result also aligns with the Social Constructivist Theory, which stresses that learning occurs best through active participation, collaboration, and the construction of meaning in social contexts. The intervention provided athletes with opportunities to build knowledge through shared experiences, which enhanced their attitudes towards mitigating health risks. The higher mean knowledge and attitude scores recorded in the post-test can be attributed to the engaging and interactive nature of the intervention, which suggests that educational interventions are a highly effective pedagogical approach for improving athletes' knowledge and attitudes towards mitigating long-term health risks.

CONCLUSION

This study examined the effect of an educational intervention on athletes' knowledge and attitudes towards mitigating long-term health risks associated with competitive sports participation in Nigeria. The results revealed that the intervention significantly improved athletes' knowledge and attitudes, highlighting the importance of structured and interactive educational programs. The findings suggest that raising awareness of health risks and promoting mitigation strategies can foster positive attitudes and enhance knowledge. The study's results have implications for sports organizations and healthcare providers seeking to promote athlete health and well-being. To optimize outcomes, educational interventions should focus on enhancing digital competence, promoting intrinsic motivation, and fostering active participation. The intervention's effectiveness can be attributed to its structured and interactive nature, which allowed athletes to engage actively with the content. This approach can be replicated in other sports settings to promote athlete health and well-being. Recommendations for sports organizations and healthcare providers include developing structured and interactive educational programs, enhancing digital competence through targeted training modules, fostering a sense of community through peer-structured activities, improving the usability and stability of learning management systems, and maintaining a good alignment between examination content and outcomes. Future research should consider extending the intervention period and expanding the participant pool to capture diverse perspectives and experiences. Addressing these limitations will help build a sustainable and inclusive model for promoting athlete health and well-being. By prioritizing athlete health and well-being, sports organizations and healthcare providers can promote a culture of safety and excellence in competitive sports.

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