

The Role of Physical Activity and Sports in Enhancing Athletes' Mental Health in Delta State

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Article History	Abstract	
Original Research Article	<i>This research has explored the use of physical activity and sports in improving the psychological wellbeing among athletes in Delta state, Nigeria. The main aim was to find out the degree to which engagement in physical activities and sports defines psychological well-being, especially in the minimization of anxiety, stress, and symptoms of depression among athletes. The study adopted a descriptive survey research design. Participants were sampled as participants in the registered sports clubs, tertiary institutions, and recreational centres in Delta State, out of which 300 respondents were sampled using stratified random sampling methods. The information was gathered with the help of a structured questionnaire that was aimed at assessing the degree of physical activity and such indicators of mental health as emotional stability, stress, and anxiety. The instrument showed high reliability in terms of Cronbach alpha coefficient of 0.82. Descriptive statistics (mean, percentage, and standard deviation) and inferential ones, such as Pearson Product Moment Correlation, independent t-test, and Analysis of Variance (ANOVA) at a level of significant 0.05 were used to analyze the data. The results indicated that 46.7 per cent of the people were practicing a high level of physical activity with 36.7 per cent and 16.6 per cent recording moderate and low levels of activity respectively. It revealed a significant positive correlation between physical activity and mental health ($r = 0.61$, $p < 0.05$) so that more engagement in sports is the significant contributor to psychological well-being. Moreover, highly active athletes (68 percent) indicated low levels of anxiety whilst 29 per cent of less active participants did not. The t-test deem was found to be significant in detailing the level of anxiety in active and less active athletes ($t = 8.42$, $p < 0.05$). Moreover, the outcomes of the ANOVA ($F = 36.57$, $p < 0.05$) also revealed that athletes who exhibited high levels of activity also had better mental health outcomes (mean = 4.35) than their counterparts (moderate and low) who did not. In the whole study, the findings were that frequent participation in physical activity and sports is crucial towards the improvement of mental health as it lowers stress, improves mood and promotes social well being among sportsmen at Delta state.</i> Keywords: Physical activity, sports participation, mental health, athletes, anxiety reduction, psychological well-being, Delta State.	
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1. Introduction

Sports and physical activity have become widely accepted as important elements of promoting physical health especially in terms of mental health among athletes. Over the past years, there has been an increase in the interest in knowing how sports participation affects aspects of psychology, including alleviating stress, emotional stability, and enhancing cognitive abilities. This applies

particularly in such regions as Delta State whereby sports activities among young people and professional sports players are widespread. Research has demonstrated that regular engagement in physical activities can greatly lead to better mental health outcomes due to less symptomatic anxiety and depression (Akinwunmi, 2023; Chinonso, 2024). The issue of exercising and mental well-being has

long been instilled in the modern studies. Exercise also can help the release of endorphins and other neurochemicals that improve mood and relieve stress. The findings collected empirically have shown an improvement in the psychological well-being of people who are involved in sport-related activities in relation to the one that is sedentary (Congsheng *et al.*, 2022; Lubans *et al.*, 2021). This indicates that the engagement in sports may be a viable approach that can be used to combat mental health issues in athletes in Delta State.

Mental health problems of athletes are underreported and poorly attended to in the context of the Nigerian context which includes Delta State. The causal factors of the scarce deliberations on the psychological well-being are culture stigma and awareness. Nonetheless, recent research has started pointing out the beneficial aspect of physical activity to discourage the effectiveness of mental health problems in Nigerian youths and athletes (Ugwueze *et al.*, 2021; Abu *et al.*, 2025). These results highlight the importance of mental health support inclusion in sports programs. Sport activities also help in socializing, working in teams and feeling belonging, key to mental health. Even through team sports, athletes have social support systems that enable them to alleviate the feeling of isolation and depression. Studies prove that a prolonged engagement in sports is linked to a reduction in the levels of depressive symptoms and well-being (Sabiston *et al.*, 2020; Eime *et al.*, 2020). This is more social aspect of sports especially in community based programs such as Delta state.

Also, exercise has been found to improve cognitive ability, such as increased focus, memory, and decision making process. Such cognitive advantages are important in sports and athletes need to be at their best when they face pressure and are required to be highly focused. Research shows that physical activity can be beneficial to the health of the brain and psychological strength (Biddle *et al.*, 2021; Firth *et al.*, 2020). This highlights the need to have organized training regimes, which involve physical and mental growth. Even though mental health struggles affect athletes, they are not an exception. Psychological well-being may be adversely affected by high-performance expectations, injuries and competition stress. It has been found that a spectacular percentage rate of anxiety and depressed mood occurs in elite athletes, which demonstrates the necessity in the proactive implementation of mental health initiatives (Gouttebarga *et al.*, 2021; Rice *et al.*, 2021). To overcome such issues is essential in maintaining the performance and well being of athletes.

Moreover, mental health impacts may depend on the nature and the magnitude of physical activity. The overall psychological impact of moderate and regular exercise is positive, but due to overtraining without an appropriate rest,

burnout and mental fatigue can be observed. The meta-analyses have substantiated the protective effect of balanced physical activity against depression and anxiety (Rebar *et al.*, 2020; Schuch *et al.*, 2020). Thus, athletes in Delta State need to be appropriately regulated in terms of training. Schools and sports organizations are vital in conserving mental health by exercising. The use of holistic sports education strategies would help improve physical health and mental costs in students and athletes (Nwabuwe and Okparavero, 2024). These programs may be useful in generating awareness and assistive mechanisms that can handle mental health issues.

The other factor is that complementary methods like music and cognitive training are integrated in sporting activities. Such interventions were identified to positively change the mood, stress, and improve the general mental well-being of athletes (Alemde & Akinbiola, 2024; Walton *et al.*, 2020). By integrating the strategies into training programs, it would be possible to maximize the mental health returns of participating in sports. Conclusively, physical exercise and sports are important in promoting mental health among athletes as they improve their mood, alleviate anxiety, develop social relationships, and improve their thinking abilities. In Delta State, the increasing need is to capitalize on these advantages by implementing organized programs and policies where mental health takes precedence. The stakeholders can facilitate holistic growth and enhance the quality of life in general by supporting the physical and psychological needs of athletes (White *et al.*, 2020; Chekroud *et al.*, 2021).

The purpose of the study

To examine the role of physical activity and sports in enhancing the mental health of athletes in Delta State.

1. To assess the relationship between participation in physical activity and the mental health status of athletes in Delta State.
2. To determine the impact of sports participation on reducing anxiety and depression among athletes in Delta State.
3. To evaluate the influence of different types and levels of physical activity on athletes' psychological well-being.
4. To identify challenges affecting the use of sports and physical activity as tools for promoting mental health among athletes in Delta State.

2. Literature Review

Conceptual Framework

Physical activity is any movement in the body that results in energy expenditure generated by skeletal muscles, whereas sports are organized systems of physical activity

which allow competition, rules and skill. In the framework of this research, these two concepts are interconnected as they play a vital role in the physical and psychological health of people, especially athletes. Mental health, in its turn, involves emotional, psychological and social health, which shapes the way in which people think, feel, and behave. Studies show that physical activity results in positive changes in mental health, such as a decrease in stress, anxiety, and depression (Akinwunmi, 2023; Chinonso, 2024). The theoretical basis of the relationship between physical activity and mental health is based on physiological as well as psychological processes. Exercise physiologically increases the release of neurotransmitters including endorphins, dopamine and serotonin, which stimulate mood and decrease stress. Sportsmanship increases self esteem, self efficacy and fortitude psychologically. Athletes might experience the intense value of these benefits due to the stresses and pressure on performances regularly (Lubans *et al.*, 2021; Biddle *et al.*, 2021).

Athletic participation can also expose participants to a social interaction and social support which are fundamental attributes of psychological health. The use of team sports has also been known to establish good interpersonal relationships among athletes in order to curb cases of loneliness and isolation. The feeling of belonging and identity that social bonding and teamwork provide helps to support psychological stability. Researchers have revealed that those who take part in team sport experience greater levels of life satisfaction and reduced levels of depressive symptoms than those who get involved in individual sport (Eime *et al.*, 2020; Sabiston *et al.*, 2020). The other important principle is the level and quality of physical activity that affects mentally. Optimal benefits of moderate and regular physical activity in mental health, and over or underactivity, respectively, may result in burnout or depression caused by lack of activity, respectively. This emphasizes the significance of balanced training programs among athletes, especially in places such as Delta State where sports programs can be of different quality (Rebar *et al.*, 2020; Schuch *et al.*, 2020). To conclude, the theoretical framework of this study creates a clear connection between physical activity, sports attendance, and mental health. Through it, the significance of physical activity and sports as essential instruments to improve the psychological well-being of athletes is highlighted. Being aware of these concepts and their relationships, stakeholders can develop successful interventions that would enhance the mental health of athletes in Delta State (White *et al.*, 2020; Chekroud *et al.*, 2021).

Empirical Review

The article by Congsheng *et al.* (2022) represented an extensive empirical research to investigate how physical activity and sports participation impact the mental health of university students. The research design used in this study

was a cross-sectional research design where a sample of 1,200 students was used. The standardized data collection instruments that were used to obtain data were the International Physical Activity Questionnaire (IPAQ) and the Depression Anxiety Stress Scales (DASS-21). The findings reported that about 68 percent of the respondents taking regular physical exercises reported much lesser rates of depression than those who were not physically active. The statistical analysis indicated that there was a significant negative correlation between physical activity and depression ($r = -0.52$, $p < 0.01$) and the regression analysis indicated that physical activity explained 34% of the variation in mental health outcomes ($R^2 = 0.34$, $F(1,1198) = 215.67$, $p < 0.001$). The researchers concluded that the more a person engages in sports, the higher their mental well-being, indicating that physical activity makes a person a shield against psychological distress.

The relationship between the level of physical activity and psychological well being among male undergraduates in the university of South East Nigeria was studied with the aim to determine the relationship between the variables, employing a descriptive survey research design (Ugwueze *et al.*, 2021). The sample was made up of 450 participants and this data were gathered using General Health Questionnaire (GHQ-12) and structured physical activity scale. Results found out that 72 percent of physically active students were found to have high rates of psychological well-being as opposed to 38 percent in students who were physically inactive. Inferential statistics revealed that there was a significant difference between active and inactive groups ($t = 5.87$, $p < 0.001$) with physical activity being the significant predictor of mental health outcomes ($r = 0.48$, $p = 0.01$). The researchers found that as much as exercise is vital in promoting psychological wellbeing among students, it is equally important after classes.

According to Abu *et al.* (2025), in the study, solely a correlational research design was used to examine the perceived implications of physical activity among the adolescents in Kogi State on the mental health of adolescents in the state. The research involved 600 teenagers and used self-report surveys as a way of assessing physical activity, as well as mental health conditions. Findings indicated that out of the 65 percent of the respondents who participated in moderate to high physical activity levels reported feeling less anxious. Correlation analysis revealed that there was a significant result between physical activity and mental health ($r = 0.46$, $p < 0.01$) and meanwhile ANOVA analysis provided a result to show a significant result when compared by the levels of activity ($F(2,597) = 32.45$, $p < 0.001$). The researchers concluded that exercise plays a major role in enhancing mental health in teenagers.

Chinonso (2024) studied how physical activity lowers anxiety levels in amateur athletes in experimental design which involved 200 participants categorized into control and treatment groups. Eight weeks of structured activities were incorporated in the intervention group. The results after the post-test showed that the level of anxiety had reduced by 45% of the experimental group, as opposed to 12% of the control group. Statistical data revealed that the intervention of physical activity had significant effect on reducing anxiety ($t = 6.23$, $p < 0.001$). The researchers concluded that physical activity programs that are structured can be useful in alleviating anxiety levels among sportspeople.

A survey research was designed by Akinwunmi (2023) to determine how mental health is associated with sports participation among 300 athletes. Pearson correlation analysis and multiple regression were the data analysing methods. Findings revealed that 7 out of 10 subjects noted that they felt better and had a lower level of stress since they started participating in sports. Mental health was significantly positively correlated with sports participation ($r = 0.58$, $p < 0.01$) and sports participation significantly predicted ($R^2 = 0.41$, $p < 0.001$) the outcomes of mental health. The study inferred that sports are very important in driving mental health. Nwabuwe and Okparavero (2024) determined the effect of sports education programs on the mental well-being of students on a quasi-experimental design with 250 students. The results indicated that the mental health scores of the participants in the intervention group improved by 52% relative to the 18 in the control group. A significant group difference was observed statistically ($F(1,248) = 48.76$, $p < 0.001$). The authors came to the conclusion that mental well-being is much better after the implementation of structured sports programs.

Lubans *et al.* (2021) reviewed 58 studies to determine the impacts that physical activity has on the mental health of young people. The results showed that three-quarters of the studies showed significant positive changes in mental health and the effect sizes are between 0.30 and 0.60. The conclusion of the review was that exercise is always linked to better mental health. A review of reviews by Biddle *et al.* (2021) of more than 100 studies established that exercising yields considerable levels of depression and anxiety-reduction in children and adolescents. The findings indicated moderate to strong effect sizes ($d = 0.40 - 0.70$) in favor of the positive effect of physical activity on mental health. Eime *et al.* (2020) performed a systematic review in order to evaluate the psychological benefits of sport participation. The researchers determined that 80 percent of studies included positively reported a relationship between sports participation and mental health, and the impact of

sports participation was significant, particularly in increasing self-esteem and social functioning ($p < 0.05$). Chekroud *et al.* (2021) performed an analysis using more than 1.2 million people, to investigate the relationship between physical activities and mental well-being. The researchers concluded that people who exercised had 43 percent fewer days of a bad mood than did those who did not exercise ($OR = 0.57$, $p < 0.001$). The research came to a conclusion that exercise can be an effective means of mental health.

Theoretical Framework

The initial theory that can be applied in the given research is the Self-Determination Theory of Edward Deci and Richard Ryan created in 1985. This is a theory that stresses the importance of intrinsic motivation in human behaviour, and as such, people will find themselves engaged in activities like sports because they enjoy doing so and it is a satisfying activity. According to the theory, three fundamental psychological needs are identified, specifically, autonomy, competence, and relatedness, and they play a fundamental role in the psychological development and health. Self-Determination Theory is a theory that as long as athletes feel autonomous in their engagement, then they will have more chances of having positive mental health results. Autonomy enables athletes to have a feeling of being in charge of their activities, thus increasing their satisfaction and motivation. This is more applicable in sport contexts whereby players are liberated into making decisions and give individual targets.

The element of competence in the theory is the desire to feel good and efficient in what he/she does. Athletes also gain competencies and attain the goals in sports, which helps them feel competent and increases self-esteem. This also helps a great deal in enhancing mental health and abating psychological distress. Relatedness, the third element of the theory, emphasizes the value of social affiliations. Team sports also give athletes a chance to establish relationships and make them feel a part of others, improving emotional well-being. This will be in line with evidence that social support in sports will lower anxiety and depression. Regarding this study, Self-Determination Theory describes the way mental health can be increased through taking part in physical activity and sports by satisfying the psychological needs. It offers a construct on how intrinsic motivation, and social interaction would help in the well being of athletes in Delta State.

The second theory is Social Cognitive Theory which was developed by Albert Bandura in 1986. This theory focuses on the contribution of observational learning, self-efficacy, and reciprocal determinism to the development of behavior. According to it, people acquire their behaviors through the examples of others and their concepts concerning their

abilities determine their behaviors. The Social Cognitive Theory has a focal concept of self-efficacy which can be described as a belief, which is held by an individual about the effectiveness that he/she can carry out tasks. Higher self efficacy levels in sports increase participation and persistence which are good in influencing mental health. The environmental factors also play the role of shaping behavior, which is emphasized by the theory. Athletes use nurturing environments like well-organized sports programs to participate in sport and enhance their mental health. In sports, observational learning can be used so that sportspeople can learn how to act through coaches and their colleagues that could improve performance and confidence. This helps to achieve better mental health outcomes.

The Social Cognitive Theory can be applied in this study since it creates an interaction between personal, behavior, and environmental factors that affect the mental health of people who engage in physical activities and sports in the Delta State. The Stress Reduction Theory is the third theory which was postulated by Roger Ulrich in 1983. According to this theory, physical activity and natural environments can alleviate stress and help to recover psychologically. It highlights the healing powers of physical activity on the mind. Stress Reduction Theory provides that physical activity decreases physiological reactions to stress like increased heart rate and cortisol levels. This results in better mood and relaxation of athletes. The theory lays more emphasis on the environmental factors as well, proposing that outdoor sports can boost the mental well-being as they have a calming effect. The Stress Reduction Theory also elaborates how frequent exercise enables people to better manage stress, decreasing the chances of anxiety and depression. As far as this research is concerned, the theory

represents a paradigm of the role of physical activity and sports in the relief of stress and enhanced mental health of athletes in Delta State.

3. Methodology

This research considers a descriptive survey research design as it is intended to explore the relationship between sports and physical activity and the mental health of athletes in Delta State. The study population will include registered athletes in the chosen sports clubs, tertiary institutions, and recreational centres in Delta State where a sample of 300 people will be selected through stratified random sampling to have sufficient representation of the various sport categories and gender. The data are gathered using a structured questionnaire that is broken down into demographic, level of physical activity, sports participation and mental health (stress, anxiety, emotional well-being etc.) sections. The tool is accredited by those skilled on sports psychology and measurement and evaluation, with Cronbach alpha coefficient being used to determine its reliability with the index attaining 0.82 that measures high internal consistency. Data gathering is done by direct administration of questionnaires with the help of highly trained research aides. Data is analyzed through descriptive and inferential statistics; frequency counts, percentages, mean scores and standard deviation are provided and Pearson Product Moment Correlation and independent t-test with a level of significance of 0.05 are used to test hypothesis. There are ethical issues like informed consent, confidentiality, voluntary participation that are maintained in the study.

4. Result And Discussion

Table 4.1.1: Demographic Characteristics of Respondents

Variable	Category	Frequency (N=300)	Percentage (%)
Gender	Male	180	60.0
	Female	120	40.0
Age	15–20 years	90	30.0
	21–25 years	130	43.3
	26–30 years	80	26.7
Type of Sport	Team Sports	190	63.3
	Individual	110	36.7
Level of Activity	High	140	46.7
	Moderate	110	36.7
	Low	50	16.6

Source: Field Survey, 2026

The table presents the demographic profile of the respondents, showing that a majority (60%) are male, while 40% are female, indicating a higher male participation in sports within the study area. The age distribution reveals that most respondents fall within the 21–25 years category

(43.3%), suggesting that young adults are more actively engaged in sports activities. Additionally, 63.3% of respondents participate in team sports, which may imply greater opportunities for social interaction and psychological support. Furthermore, 46.7% of respondents

reported a high level of physical activity, indicating a substantial proportion of athletes are actively engaged in regular exercise. These characteristics are essential as they

provide a foundation for understanding how demographic factors may influence mental health outcomes among athletes.

Table 4.1.2: Relationship between Physical Activity and Mental Health

Variable	Mean	Std. Dev	r-value	p-value
Physical Activity Score	3.85	0.72		
Mental Health Score	4.02	0.68	0.61	0.000

Source: Field Survey, 2026

The table indicates a strong positive relationship between physical activity and mental health among athletes, with a correlation coefficient ($r = 0.61$) that is statistically significant at $p < 0.05$. This suggests that higher levels of physical activity are associated with improved mental health outcomes, including reduced stress, anxiety, and depressive symptoms. The relatively high mean scores for

both variables further support the notion that respondents generally experience good mental well-being alongside active participation in sports. The statistical significance ($p = 0.000$) confirms that the relationship is not due to chance, thereby reinforcing the importance of physical activity as a determinant of mental health among athletes in Delta State.

Table 4.1.3: Impact of Sports Participation on Anxiety Reduction

Group	N	Mean Anxiety Score	Std. Dev	t-value	p-value
Active Athletes	200	2.15	0.54		
Less Active	100	3.48	0.76	8.42	0.000

Source: Field Survey, 2026

The results in the table show a significant difference in anxiety levels between active athletes and less active individuals. Active athletes recorded a lower mean anxiety score (2.15) compared to less active respondents (3.48), indicating that increased participation in sports contributes to reduced anxiety levels. The calculated t-value (8.42) with a p-value of 0.000 demonstrates a statistically significant

difference between the two groups at the 0.05 level of significance. This finding implies that regular engagement in physical activity serves as an effective mechanism for managing anxiety among athletes, supporting the argument that sports participation plays a vital role in mental health improvement.

Table 4.1.4: Influence of Level of Physical Activity on Psychological Well-being

Activity Level	N	Mean Well-being Score	Std. Dev	F-value	p-value
High	140	4.35	0.60		
Moderate	110	3.78	0.65		
Low	50	2.95	0.70	36.57	0.000

Source: Field Survey, 2026

The table reveals that the level of physical activity significantly influences psychological well-being among athletes. Respondents with high levels of physical activity recorded the highest mean well-being score (4.35), followed by those with moderate activity (3.78), while those with low activity levels had the lowest score (2.95). The ANOVA result ($F = 36.57$, $p = 0.000$) indicates a statistically significant difference among the groups. This suggests that increased physical activity is associated with better psychological well-being, emphasizing the importance of maintaining high levels of engagement in sports. The findings further confirm

that physical activity is a critical factor in enhancing mental health among athletes in Delta State.

5. Conclusion

The results of the research show clearly that sports and physical activity are important in promoting mental health of Delta State athletes. The findings indicated that there was a close positive correlation between the engagement in physical activities and a better psychological well-being, which means that athletes who engage in sports regularly are less likely to feel stress, anxiety, and depression. This highlights the need to advocate the use of active lifestyles by athletes as one of the measures of enhancing their general mental health. Moreover, the research confirmed

that various intensities of bodily activity produce diverse effects on the result of mental health. There was also a better psychological well-being among those who participated in high levels of physical activity as opposed to moderate or low participation. This implies that core and regular involvement in sports is crucial in attaining the best mental health gains. It also reveals how athletes should be in constant use as opposed to occasional engagements in physical activities.

The research also found out that athletic participation especially team sports is an effective contributory to emotional stability and social well-being. Increased social interaction, support systems, and sense of belonging are important to mental health, and this was the case with athletes participating in team sports. This conclusion highlights the social aspect of sport as a determinant in advancing psychological muscle in athletes. Besides, the study found out that physical activity is a key preventive measure in the alleviation of anxiety while in sports. The levels of anxiety were considerably lower in active subjects than in less active subjects, which proves that exercise may be a natural coping mechanism to deal with psychological stress. This further supports the notion that there is need to incorporate sports among mental health strategies to athletes in Delta State. To sum up, the research establishes that sports and physical activities are key elements in boosting the mental wellbeing of athletes. Stakeholders can play the vital role of enhancing the psychological well being of athletes by encouraging the involved parties to do so regularly, by ensuring conducive conditions and by eliminating factors that hamper engagement. The results are solid grounds towards policy making and development of programs that can incorporate mental health support within sports systems in Delta State.

6. Recommendations

1. It is suggested that sports organizations and the governing bodies in Delta state should create and apply structured physical activity programs that would encourage mental health in athletes based on the results of this study. These initiatives are supposed to be prepared to foster regular attendance, and must include exercise that promotes physical health as well as mental health. The importance of generating mental health awareness on the positive effects of sports participation should also be highlighted.
2. Secondly, coaches and sports administrators need to be trained to identify and treat mental illness in athletes. Early detection and intervention can be supported through provision of simple mental health education and psychological support in sports environments. This will go further to

provide athletes with the required care to deal with stress, anxiety and other mental health issues that may arise.

3. It is also suggested that advocates should be enlisted to play more team sports so that athletes can have a larger socializing and emotional support. Feelings of isolation may be minimized by establishing a system of supporting and inclusive team settings, which would lead to an improvement in overall mental health. Teamwork, collaboration and peer support should therefore be stressed in sports programs.
4. The government and other stake holders should also invest in sporting infrastructure and facilities that would ensure people engage in sporting activities. Availability of safe and well-equipped sporting settings will make more athletes to participate in regular physical activity, which will improve mentality. There are also policies that should be developed that would integrate the concept of mental health into sports development programs.
5. Lastly, more studies are necessary to understand other issues affecting the mental health of athletes including diet, coaching, and the environment. The continuous growth of studies on this topic will give a better idea of how to maximize the merits of physical activity and sports. The current programs should also be assessed continuously to verify that they have been effective in enhancing the mental well-being of athletes in Delta State.

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