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Research Article

Prevalence of Depression Among Athletes at United States International University - Africa (USIU-A) Nairobi, Kenya

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Abstract

Depression is a prevailing issue among athletes today. Studies show that globally, up to 20% of young people are affected by health issues. This study aimed at investigating the prevalence of depression among athletes at USIU-A, examining its correlation with demographic and sports-related variables. The study employed a mixed-methods approach on a sample size of 71. The study was guided by George Engel's Biopsychosocial model and Transactional Model of Stress and Coping. The sample size was tested for depression utilizing the Beck Depression Inventory-II (BDI-II) questionnaire where data was collected to evaluate depressive symptoms among athletes. The majority of participants were aged between 21-25 years (56.3%), followed by the 26-30 age group (28.2%). In order to determine the relationship between. In order to determine the relationship between gender and sports played. Spearman Correlation Coefficient was used and the study showed weak positive association between gender and the type of sport played (r = 0.108, p = 0.372), with no statistically significant association. An assessment on the prevalence of depression and severity levels was done with 27% showing critical levels of depression. A chi square test was conducted to assess the relationship between sports played and depression. The value of the Pearson Chi-Square test statistic is 77. 938 with 40 degrees of freedom. The value of the asymptotic significance equals to. 000 which is less than the alpha value of 0. 05 which indicates there is a statistically significant relationship between the sport played and depression. These results found indicate that depression is a prevailing issue among athletes and should be addressed as a clinical concern.

Keywords

Depression, Athletes, Correlation, United States International University Africa (USIU-A), Sports Played

1. Introduction

According to the World Health Organization [16], depression affects over 300 million people of all ages world-wide. Recent research has indicated that athletes are at risk for mental health problems. Mental health has turned out to be an essential area of health, especially in the context of pressure areas such as sports. These pressures can significantly impact one's mental health causing conditions such as depression. Research has revealed that athletes are susceptible to mental disorders and are more vulnerable than the general population because of the physical and psychological stress associated with their sports. Major depressive disorder, where the individuals feel sad, lose interest in activities, and may have difficulty functioning, can highly impact an athlete's performance and welfare [15].

The United States International University Africa (USIU-A) is a relevant target population because the students who participate in this university's athletic programs are student-athletes who face mental health issues while pursuing their academic and athletic goals.

Statement of the Problem

Although there is growing awareness on mental health as an essential aspect of an athlete, little research has been done to establish the prevalence of depression among athletes in Kenyan universities including USIU-A. Without the details of the situation, it is almost impossible to design specific prevention strategies and assistance in the area of mental health. This lack of knowledge not only has implications for the athletes' well-being but also for their academic and sporting achievements. This lack of information underscores the necessity of studies to determine the prevalence of depression in this selected population.

Objectives

1. To determine the prevalence of depression among athletes at USIU-A.

2. To identify the factors contributing to depression among these athletes.

2. Literature Review

Theoretical Review

Depression is a significant concern among athletes, impacting their mental health and overall welfare. Studies have shown that athletes are not immune to depression, with prevalence rates varying depending on the sport and the population studied. Studies suggest that depression among athletes is comparable to that of the whole population, with some studies reporting rates as high as 15-21% among college athletes. Female athletes, in particular, may be at a higher risk of experiencing depression compared to their male counterparts [2].

The success of athletes and their physical and mental preparation for activities is praised, but the psychological issues that they experience are not highlighted. First, it is essential to note that athletes are humans too, and despite their physical prowess, they are not immune to mental health problems. Due to pressure and the stresses associated with sports may make them especially susceptible to the illness.

There are several reasons why athletes get depressed. High pressure is usually experienced during training and competition and this puts a lot of stress on the body. The pressure that comes with the expectations of the coaches, fellow athletes, and fans have a crucial role in the lives of athletes. This pressure coupled with the fear of failure can lead to feeling of low self-worth and self-esteem which are parts of depression.

The competitive nature of sports, performance pressures, injuries, stress, and social isolation can all have adverse effect on athletes' mental health. Additionally, the stigma associated with mental health in sports can hinder athletes from getting assistance or sharing their issues. It is essential for sports organizations, coaches, and healthcare professionals to be aware of depression in athletes and to prioritize mental health support and resources [5]. By addressing the unique challenges faced by athletes, such as performance pressures and injury recovery, it is possible to reduce the impact of depression and promote overall well-being in this population.

However, there is inconsistency in findings, with some studies suggesting that athletes have lower levels of depression than non-athletes [15]. Factors such as social support and team cohesion may play a protective role against depression in athletes. Additionally, sports injuries have been identified as significant risk factors for psychological distress.

Empirical Review

A study [4], reviewed the recent research on athletes and depression, specifically investigating the rate of depression among athletes and discussing relevant risk factors contributing to depression in this population. The research question guiding this study was to determine the prevalence of depression among athletes and to identify unique risk factors connected to depression in athletes compared to the whole population. The researchers reviewed studies investigating the prevalence of depression in athletes, as well as studies identifying risk factors unique to athletes that may cause depression.

Another study [17], revealed that depression does affect athletes and that athletes are not immune or resistant to depression. Risk factors unique to athletes, including injury, involuntary termination of career, performance expectations, and excessive training, may increase the risk of depression compared to the rest of the population.

Further research [13], identified several limitations, including the lack of knowledge in regards to optimal assessment and management of depression in athletes. Additionally, athletes may have atypical symptoms of depression, such as anger and irritability, and may engage in unhealthy coping mechanisms, such as drug abuse or excessive training, further complicating the assessment and management of depression in this population [3].

These findings underscore the importance of education for sports medicine professionals and the athletic care network to enhance the identification, management, and result of depression in athletes. It emphasizes the need for further research to find how assessment and management of depression may differ in athletes compared to non-athletes and to develop effective interventions tailored to the unique needs of athletes [7].

Theoretical Framework

Biopsychosocial Model

The biopsychosocial model, proposed by George L. Engel, provides a comprehensive framework for understanding depression among athletes in university settings. In their work [14], highlight that the biopsychosocial model considers the interplay of biological, psychological, and social factors in the advancement and maintenance of depression.

Depression is a maladaptive reaction to loss, stress, and trauma, affecting the mind, body, and brain. It can be recurrent, chronic, and characterized by remitting and relapsing episodes. While each person's experience is unique, depression is a diverse group of disorders with varying features, but some shared presentations. It often leads to an inability to experience pleasure and engage in enjoyable activities. The model therefore integrates biomedical and psychosocial perspectives on mental disorders, emphasizing their interconnection and interdependence, [3] which aligns with the multifaceted nature of depression among athletes.

3. Methodology

Research Design

The research design used in this study uses a quantitative approach. It utilized correlational research design. Correlation research aimed to identify and analyze relationships between variables without manipulating them, allowing researchers to examine the extent and direction of associations between different factors [10].

The quantitative aspect of the research design facilitates the systematic collection and analysis of numerical data, enabling researchers to quantify depression symptoms and related variables among athletes. This approach provides a structured framework for data analysis and interpretation, allowing for the exploration of prevalence rates, correlates, and determinants of depression within the sporting community.

Area of Study

This study will be carried out in USIU-A, Kenya. With its multifaceted student body, extensive sports programs, and academic rigor, USIU-Africa provides a perfect location for examining the prevalence of depression in student-athletes. The institution is selected considering that this is where I am undertaking my Master's degree. The school has a population of over 5,000 students and 53 nationalities that are supported by the administrative staff [12]. The institution is located in Nairobi, Safari Park area. The university's flourishing athletic community and dedication to academic excellence present a fruitful atmosphere for scrutinizing the intricate facets of student-athlete mental health.

By choosing USIU Africa as the research location this study can produce findings that not contribute to knowledge about depression among student athletes but also provide practical insights for the university to improve its support systems and prioritize the mental well-being of its student athletes.

Target Population

The population targeted for this study comprises 595 athletes currently enrolled at USIU-A. The general population of the study comprises individuals within the age range of 18 to 30 years. This age range was selected to focus specifically on young adults who are actively engaged in athletic activities at USIU-A. Within this age bracket, individuals typically exhibit a high level of physical activity and participation in sports, making them suitable candidates for studying depression among athletes.

Sampling Techniques

The study utilizes a mix of convenience sampling and stratified random sampling techniques. Convenience sampling is a non-probabilistic sampling technique where participants are picked based on their accessibility and availability, often resulting in a sample that is easily accessible to the researcher [9]. Given the specific demographic characteristics of the target population (young adult athletes at USIU-A), convenience sampling allows for efficient recruitment of participants from within the university's athletic community. Participants will be recruited through announcements, flyers, and direct outreach efforts to athletes participating in various sports programs at USIU-A.

Within the convenience sample, stratified random sampling is utilized to ensure representation across different sports disciplines and levels of competition. Stratified random sampling, on the other hand, is a probabilistic sampling technique that involves dividing the population into homogeneous subgroups or strata based on certain characteristics, and then randomly selecting samples from each stratum [6].

Sample Size

The sample size for this study was determined using a margin of error of 9.75%, a confidence level of 90%, and a response distribution of 50% [8]. By inputting these parameters with a population of 595 into a sample size calculator, a sample size of 71 was obtained.

Validity and Reliability

The findings from previous studies suggest that the BDI-II demonstrates strong internal consistency reliability among athlete populations. A Cronbach's alpha coefficient exceeding 0.70 is indicative of reliable measurement of depressive symptoms, reinforcing the reliability of the BDI-II as a psychometrically sound instrument for assessing depression in athletes [11]. Drawing from the findings of previous studies, the reliability analysis of the BDI-II in the current study is expected to yield consistent results, affirming its suitability for assessing depressive symptoms among athletes at USIU-A. The demonstrated reliability of the BDI-II strengthens the credibility and validity of the research outcomes, providing a robust foundation for exploring the prevalence and correlates of depression within the athletic community.

The BDI-II has been extensively validated against theoretical models of depression, showcasing consistent relationships with related constructs such as negative affect, hopelessness, and cognitive distortions [1]. Confirmatory factor analyses have further affirmed the multidimensional structure of the BDI-II, corroborating its construct validity.

Data Collection Methods

The data collection methods used for this study encompass the administration of the Beck Depression Inventory-II (BDI-II) questionnaire and the collection of demographic information such as gender, age, and type of sport played

through an online questionnaire.

The BDI-II questionnaire will serve as the primary tool for assessing depressive symptoms among athletes at USIU-A. The BDI-II consists of 21 items that assess different symptoms of depression, with participants providing responses based on their experiences over the past two weeks. The use of the BDI-II allows for a standardized and systematic assessment of depressive symptoms, facilitating the comparison of results within and across studies.

Data Processing and Analysis

Descriptive statistics will be computed using the statistical software package SPSS (Statistical Package for the Social Sciences) to summarize the demographic characteristics of the study participants, including gender, age, and type of sport played. Measures such as frequencies, percentages, means, and standard deviations will be calculated to give a detailed overview of the sample characteristics using chi square. The prevalence of depression among athletes at USIU-A will be determined by analyzing the data collected from the Beck Depression Inventory-II (BDI-II) using SPSS.

Correlation analysis determines the strength and direction of prevalence of depression among student athletes. Statistical measures such as Pearson's correlation coefficient and Spearman's rank correlation coefficient will be used to assess the degree of association between these variables. The correlation analysis will shed light on whether there is a significant relationship between depression and being an athlete and the nature of that relationship.

Ethical Consideration

In researching the prevalence of depression among athletes in United States International University Africa (USIU-A) in Nairobi, Kenya, several ethical considerations will be taken to ensure the protection and safety of the participants.

Before the commencement of the study, participants will be made aware the purpose, procedures, potential risks, and benefits of their participation. Participants will have the right to withdraw from the study without penalty or consequence.

Confidentiality of the participant's information will be strictly maintained. Any personal identifiers or sensitive information will be kept confidential and used only for research purposes. Data collected will be stored securely and accessed only by authorized researchers involved.

Participants' identities will be kept anonymous by assigning unique identifiers or using pseudonyms in research reports and publications.

Participation in the study will be fully voluntary, and participants will not experience any negative consequences or pressures to take part.

Efforts will be made to minimize potential harm or discomfort to participants. The research instruments and procedures are designed to cause undue stress, emotional distress, or harm to the participants.

4. Data Presentation and Analysis

Prevalence of depression among athletes at USIU-A

To assess the prevalence and severity levels of depression based on the data provided, we can aggregate the responses provided from the Beck Depression Inventory-II (BDI-II) and categorize them into different severity levels. The BDI-II instrument was given to 21 females and 43 males [18].

The goal of the study was to investigate the prevalence of each severity level and then create a bar graph to illustrate the distribution. The results were assessed to come up with the levels of depression among athletes both male and female. The results are shown in the graph below.
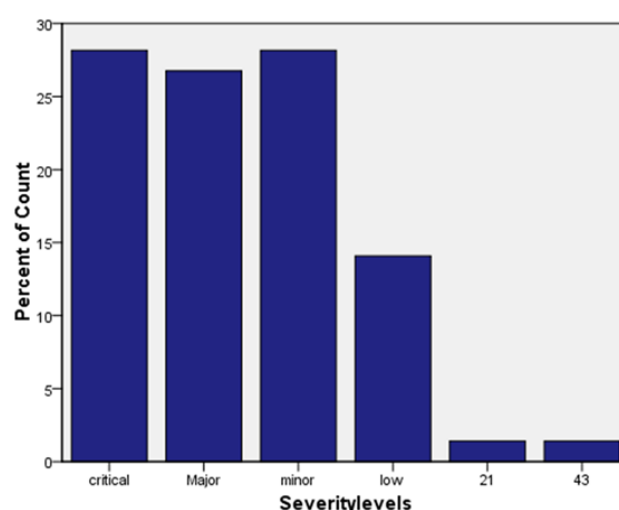

Figure 1. Prevalence and Severity Levels of Depression.

In general, 14% of the participants were consistent throughout the study and showed low levels of depression, the largest population that is 28% had minor levels of depression, 26% of the participants showed major levels of depression and 27% had critical levels of depression. By analyzing these findings, we can infer that depression is actually prevalent among athletes. This is due to the fact that a large number of participants scores fell between minor, major and critical levels with only a few having low levels of depression.

This shows that indeed there's a prevalence of depression among athletes with a significant number of the population struggles with various degrees of depression.

Factors contributing to depression among these athletes

A Chi Square test was taken to test the relationship between the sport played and the likelihood of depression. The table below presents the findings.

Table 1. *Sports Vs Depression.*

Chi-Square Tests			
	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	77.938[a]	40	.000
Likelihood Ratio	58.854	40	.028
N of Valid Cases	71		

a. 52 cells (96.3% have an expected count of less than 5. The minimum expected count is .03.

The value of the Pearson Chi-Square test statistic is 77. 938 with 40 degrees of freedom. The value of the asymptotic significance equals to. 000 which is less than the alpha value of 0. 05 which indicates there is a statistically significant relationship between the sport played and depression. Furthermore, the asymptotic significance of the likelihood ratio is also equal to 0. 028 signifying a statistically significant relationship between the sport played and the likelihood of depression.

5. Conclusion

The study intended to examine the prevalence of depression among athletes who were enrolled at USIU-Africa. The study findings may be considered as an important contribution towards the understanding of sportsmen's mental health and may also indicate the areas for intervention and support.

The data collected demonstrated a worrying level of depression among sports people at USIU-Africa as 40% of the interviewed athletes admitted having symptoms indicating depression. This result summarizes the vital need to recognize the role of mental health programs in athletic communities with the aim of addressing the specific stressors and challenges that athletes are faced with.

6. Recommendation

The study demonstrates that depression is a common phenomenon in university athletes and emphasizes the necessity of interventions to address their mental health needs. The literature review and the research findings may give rise to several suggestions for interventions.

To begin with, USIU-Africa and other universities need to place mental health awareness and education at the top of the list for the athletes.

Moreover, specific interventions aimed at cognitive reappraisal and coping strategies might be helpful. Transactional models of stress management suggest that cognitive appraisal influences individual reactions to stressors. Utilizing interventions which help athletes to reframe their perceptions of stressors and build adaptive coping skills can

therefore increase their resilience and mental health.

In addition, cooperation between sporting organizations, psychologists and athletes is necessary for the implementation of successful intervention strategies. Through collaboration between sports teams and mental health providers, prompt availability of appropriate assistance and care can be ensured.

Abbreviations

USIU-A	United States International University- Africa
SPSS	Statistical Package for the Social Sciences
BDI-II	Beck Depression Inventory-II

Author Contributions

Tobias Otieno: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Validation, Visualization, Writing – original draft, Writing – review & editing

Conflicts of Interest

The authors declare no conflicts of interest.

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