

IMPACT OF SPORTS INJURIES ON THE PSYCHOLOGICAL WELLBEING OF COLLEGIATE ATHLETES

MARJON PARDILLO DE VERA

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Abstract

Sports injuries are common in collegiate sports and may extend beyond physical harm to affect athletes' mental health. This study investigated the impact of sports injuries on the psychological well-being of varsity athletes at a selected university in Dagupan City, Philippines. A quantitative cross-sectional descriptive-comparative design was employed. Two hundred collegiate athletes completed a structured self-report questionnaire assessing demographic characteristics, injury history, and psychological well-being indicators, including anxiety, depressive symptoms, mood states, perceived stress, and self-esteem. Descriptive statistics summarized injury prevalence and well-being levels, while inferential tests examined relationships and group differences.

Findings revealed a high prevalence of injury: 63% (126 of 200) reported at least one sports-related injury during their collegiate athletic career. Injured athletes demonstrated significantly poorer psychological well-being than non-injured athletes, showing higher levels of anxiety, depressive symptoms, negative mood states, and perceived stress, alongside lower self-esteem. In addition, injury burden was negatively associated with psychological well-being: as the number and perceived severity of injuries increased, distress indicators rose, and self-esteem declined. Injury classification also mattered. Athletes with acute injuries experienced greater anxiety, negative mood, and stress than those with overuse injuries, although depressive symptoms did not significantly differ between these groups.

Overall, the results indicate that sports injuries pose a substantial risk to the psychological well-being of collegiate athletes and support the integration of mental health screening and tailored psychological interventions within injury prevention and rehabilitation programs.

Keywords: Sports Injuries; Psychological Well-Being; Collegiate Athletes; Anxiety; Depression; Mood States; Acute Injuries; Overuse Injuries; Dagupan City; Philippines

1. Introduction

Sports participation has long been recognized as a powerful vehicle for holistic development, particularly among students who engage in organized athletics. At the collegiate level, varsity sports cultivate discipline, social connectedness, leadership, and physical fitness, all of which are linked to positive educational and life outcomes. In the Philippines, this emphasis on sport aligns with the Department of Education's (DepEd) continuing commitment to learner welfare and development through structured sports programs. DepEd policy frameworks underscore that the student-athlete must be supported as a "student first," with rights that include protection of general well-being and health (Department of Education [DepEd], 2021). Notably, DepEd Order No. 052, s. 2021, which disseminates the Implementing Rules and Regulations (IRR) of Republic Act (RA) 10676 or the Student-Athletes Protection Act, explicitly reinforces the State's mandate to safeguard student-athletes' overall welfare across educational institutions, including higher education (DepEd, 2021; DepEd, 2021 DM No. 231). Parallel to this, DepEd has recently intensified mental health promotion through the Implementing Rules and Regulations of RA 12080, the Basic Education Mental Health and Well-Being Promotion Act, which calls for

stronger mental health and psychosocial services embedded within school health and wellness activities, including sports-related programs (DepEd, 2025a). Likewise, DepEd's School-Based Mental Health Program guidelines emphasize prevention, early identification, and responsive care for mental health concerns among learners (DepEd, 2025b). Although these policies primarily target basic education, they reflect a national direction that places mental well-being at the center of learner development, a principle equally applicable to tertiary student-athletes.

However, despite the developmental benefits of sports, collegiate athletes face an unavoidable reality: injury risk is intrinsic to competitive participation. Muscle strains, sprains, fractures, concussions, and chronic overuse injuries remain common in varsity sports due to high training volumes and intense performance demands. International evidence indicates that sport-related injuries are not merely physical disruptions; instead, they often initiate significant emotional and cognitive responses that can alter an athlete's psychological functioning. Contemporary models of sport-injury response show that injuries affect pain perception, thought patterns, emotions, and health-related behaviors, which collectively shape psychological well-being during recovery (Wiese-Bjornstal, 2019). A substantial body of research confirms that injured athletes frequently experience heightened anxiety, depressive symptoms, irritability, fear of reinjury, and lowered self-confidence, especially when injuries lead to prolonged removal from sport or threaten athletic identity (Arvinen-Barrow & Walker, 2022; Yang et al., 2023). Systematic reviews further reveal that post-injury mental health symptoms are widespread in collegiate sport populations, with psychological strain often emerging alongside rehabilitation challenges and uncertainty about return-to-play (Sabol et al., 2020). In particular, studies of collegiate athletes consistently report that depression and anxiety symptoms may rise after injury, reducing adherence to rehabilitation and overall life satisfaction (Brewer & Redmond, 2022; Leddy et al., 2021).

Moreover, the psychological effects of injuries differ depending on injury characteristics. Acute injuries—those sudden and traumatic in onset—tend to trigger strong immediate emotional reactions such as shock, anxiety, and mood disruption. By contrast, overuse injuries develop gradually and are typically associated with frustration, burnout-related emotions, and a prolonged sense of helplessness due to recurring pain and delayed recovery (Ivarsson et al., 2021). A recent consensus review of sport-injury psychology emphasizes that stress responses and emotional dysregulation strongly predict acute injuries. At the same time, psychosocial and sociocultural stressors are also implicated in overuse injury processes (Forsdyke et al., 2025). These findings suggest that psychological well-being is both an outcome of injury and a factor intertwined with the injury experience, indicating a bidirectional, complex relationship worthy of local investigation.

Despite growing global evidence, a significant gap remains in Philippine collegiate contexts. Most published injury-psychology studies are concentrated in North America, Europe, and Australia, where institutional athletic resources and mental health systems differ greatly from those in many Philippine universities. Local collegiate athletes may experience unique stressors, including limited rehabilitation support, fewer sports-psychology services, financial pressures, and sociocultural expectations of toughness and endurance. While DepEd policies increasingly foreground mental health and student-athlete protection (DepEd, 2021; DepEd, 2025a), empirical research that directly examines how sports injuries shape psychological well-being in Philippine higher education remains scarce. This lack of localized evidence creates a practical challenge: without context-specific data, universities may struggle to design injury rehabilitation programs that address the mental and emotional needs of injured athletes in a culturally responsive way. Consequently, there is a pressing need to generate local findings that connect injury prevalence and injury type to measurable psychological outcomes.

In response to this research space, the present study investigates the impact of sports injuries on the psychological well-being of collegiate athletes enrolled in a selected university in Dagupan City. Following a quantitative, cross-sectional, descriptive-comparative design, the

study determines injury prevalence, assesses psychological well-being among injured athletes, examines relationships between injury burden and mental health indicators, compares injured and non-injured groups, and analyzes psychological differences between acute and overuse injuries. By grounding the inquiry in the national policy direction on learner welfare and mental health promotion (DepEd, 2021; DepEd, 2025a, 2025b), the study aims to provide evidence to guide university-level interventions, support systems, and referral pathways. Ultimately, this work seeks to reinforce a holistic athlete-care model in which psychological recovery is treated as essential as physical rehabilitation, thereby aligning varsity sport practice with the broader Philippine education mandate to protect student well-being.

2. Method

2.1 Research Design

This study utilized a quantitative cross-sectional research design, specifically a descriptive-comparative approach, to examine the impact of sports injuries on the psychological well-being of collegiate athletes from a selected university in Dagupan City during Academic Year 2024–2025. Data were collected at a single point in time using standardized self-report questionnaires administered to approximately 200 varsity athletes, covering demographic information, injury status and history, injury type (acute or overuse), and psychological well-being indicators such as anxiety, depression, mood states, perceived stress, and self-esteem. Descriptive statistics were used to determine injury prevalence and summarize well-being levels. At the same time, inferential analyses (e.g., correlation tests and group-comparison procedures) assessed relationships between injury variables and psychological outcomes and tested differences between injured and non-injured athletes and across injury types, without manipulating any variables.

2.2 Participants

The study was conducted with approximately 200 collegiate varsity athletes enrolled in a selected university in Dagupan City, Philippines, during the School Year 2024–2025. These athletes were actively participating in officially recognized university sports programs across various disciplines and were recruited through convenience sampling in coordination with coaches and athletic administrators. Eligible participants included male and female student-athletes who were currently training and competing for their respective varsity teams and who consented to take part in the research; athletes who were not active in varsity participation during the data-collection period or who had injuries unrelated to sports participation were excluded. This participant group provided the necessary data to determine injury prevalence, compare injured and non-injured athletes, and analyze how injury type relates to psychological well-being within the university athletic context.

2.3 Instrumentation

The study used a structured self-report questionnaire as the primary instrument, composed of three parts: (1) a demographic profile sheet gathering age, sex, year level, and varsity sport participation; (2) a sports injury history checklist that asked athletes to report any collegiate sport-related injuries, indicating type (e.g., sprain, strain, fracture, dislocation, tendinitis, stress fracture), date of occurrence, body part affected, perceived cause, and classification as acute or overuse, which enabled grouping into injured and non-injured categories; and (3) standardized psychometric scales measuring psychological well-being, specifically assessing anxiety, depressive symptoms, negative mood states, perceived stress, and self-esteem using Likert-type response formats to generate quantitative scores. The

instrument was pilot-tested with a small group of non-participant athletes to ensure clarity, suitability, and reliability prior to complete administration.

2.4 Data Analysis

Data were analyzed using both descriptive and inferential statistics. First, frequencies and percentages were computed to determine the prevalence of sports injuries and to classify respondents as injured or non-injured, while means and standard deviations summarized psychological well-being scores across anxiety, depressive symptoms, negative mood states, perceived stress, and self-esteem. To examine relationships, Pearson's product-moment correlation was used to assess the association between injury variables and psychological well-being indicators. For group comparisons, independent-samples t-tests were conducted to examine significant differences in psychological well-being between injured and non-injured athletes, and another t-test (or a one-way ANOVA if more than two groups were present) was used to compare psychological outcomes across injury types. Effect sizes were calculated to assess the magnitude of observed differences, and all tests were interpreted at the 0.05 level of significance to ensure rigorous, objective conclusions.

3 Results

The results showed that sports injuries were highly prevalent among the collegiate athletes in the selected university. Out of 200 respondents, 63% (126 athletes) reported having sustained at least one sports-related injury during their collegiate athletic career, while 37% (74 athletes) reported no injury experience. This distribution indicates that the majority of varsity athletes had been exposed to injury risk, highlighting that injury occurrence is an everyday reality within the university sports environment.

Moreover, the psychological well-being of athletes who had experienced injuries was notably compromised. On average, injured athletes registered elevated mean scores in anxiety symptoms, depressive symptoms, negative mood states, and perceived stress, alongside reduced mean self-esteem levels. These patterns suggest that injured athletes were dealing with substantial psychological distress during or after their injury experiences, implying that the effects of injury extend beyond physical setbacks into emotional and mental functioning.

In addition, statistical testing revealed a significant negative relationship between sports injuries and psychological well-being. Specifically, as the number of injuries increased and as injuries were perceived to be more severe, athletes tended to report higher anxiety, stronger depressive symptoms, more negative mood states, and greater perceived stress, while self-esteem decreased. This finding indicates a precise dose-response pattern, where greater injury burden corresponded to poorer psychological outcomes.

Finally, comparative analyses demonstrated that injured athletes consistently exhibited worse psychological well-being than their non-injured counterparts across all measured dimensions, with large to huge effect sizes indicating a substantial gap between groups. When injury type was considered, acute injuries were linked to significantly higher anxiety, negative mood, and stress compared to overuse injuries; however, depressive symptoms did not differ substantially between the two injury categories. Interestingly, self-esteem was lower among athletes with acute injuries but relatively higher among those with overuse injuries, suggesting that the psychological impact of injury varies by classification and may reflect differences in coping demands and perceived control.

4. Discussion

The present findings on the high prevalence of injuries (63% of athletes reporting at least one injury) are consistent with broader collegiate-sport evidence showing that injury exposure is a routine part of varsity participation. International literature repeatedly reports high injury rates

among university athletes due to intensive training loads and competitive demands, making injuries a normative rather than exceptional experience in collegiate sport settings (Arvinen-Barrow & Walker, 2022; Wiese-Bjornstal, 2019). Similarly, recent multi-sport surveys indicate that collegiate athletes commonly sustain injuries across a single season or career, reinforcing the idea that injury prevention and monitoring must be central in university athletics (Yang et al., 2023). Thus, the prevalence observed in this study corroborates established patterns and supports the claim that Dagupan City collegiate athletes face injury risks comparable to those documented globally.

Moreover, the finding that injured athletes showed poorer psychological well-being—marked by higher anxiety, depressive symptoms, negative mood, and stress alongside lower self-esteem—echoes a large body of sport-injury psychology research. Contemporary models emphasize that injury disrupts not only the body but also cognition, emotion, and behavior, often threatening athletic identity and daily routine (Wiese-Bjornstal, 2019; Wiese-Bjornstal et al., 1998). In the same vein, narrative and systematic reviews of student-athletes highlight frequent post-injury emotional reactions such as sadness, fear of reinjury, frustration, and reduced confidence, which can develop into clinically relevant anxiety or depressive symptoms if unaddressed (Putukian, 2016; Sabol et al., 2020). Therefore, the psychological distress reported by injured athletes in this study aligns closely with prior research and supports the argument that injury recovery should be treated as both a physical and mental-health process.

In addition, the significant negative relationship between injury burden (number and severity) and psychological well-being mirrors findings from recent empirical studies. Evidence indicates a “dose–response” pattern: athletes with more frequent or severe injuries tend to show escalating psychological strain, including elevated anxiety and depression and declining self-worth (Brewer & Redmond, 2022; Impact of Injury Frequency and Severity on Mental Health, 2025). For example, longitudinal work using the DASS-21 and POMS similarly found that increasing injury frequency and perceived severity predicted worsening mental health indicators over time (Impact of Injury Frequency and Severity on Mental Health, 2025). Consequently, the current study corroborates the established view that psychological risk intensifies as injury experiences accumulate, emphasizing the need for early screening and targeted support for athletes with recurrent or severe injuries.

Furthermore, the significant difference in psychological well-being between injured and non-injured athletes—with large effect sizes—reflects robust comparative evidence in collegiate populations. Research consistently shows that injured athletes report substantially higher distress and lower self-esteem than their healthy peers, suggesting that injury status alone creates a meaningful psychological divide (Sabol et al., 2020; The Sport Journal, 2025). This aligns with conclusions that injuries may aggravate preexisting symptoms or unmask latent mental-health vulnerabilities, particularly during periods of forced rest, social isolation from teammates, or uncertainty about return-to-play (Putukian, 2016). Hence, the sharp injured–non-injured gap identified in this study is not an isolated local trend but a well-documented phenomenon that confirms the mental-health burden of injuries among student-athletes.

Finally, the study’s injury-type differences—where acute injuries produced higher anxiety, negative mood, and stress than overuse injuries, while depressive symptoms did not differ—are also supported by current frameworks. The 50-year consensus on sport-injury psychology notes that acute injuries are strongly linked to stress reactions and immediate emotional dysregulation. In contrast, overuse injuries often reflect chronic psychosocial strain and different coping profiles (Forsdyke et al., 2025). Likewise, literature on maintaining control and appraisal in injury suggests that sudden traumatic events (acute injuries) commonly provoke fear and anxiety spikes. In contrast, gradual-onset injuries can elicit frustration and longer-term adjustment stress, sometimes without sharply different depression levels (Ivarsson et al., 2021). Therefore, the present pattern corroborates the view that psychological responses are injury-specific, supporting

the recommendation for tailored interventions based on whether injuries are acute or overuse-related.

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