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Abstract: This study investigated the impact of sports participation on mood states among college level students in Pakistan. A cross-sectional research design used, and totally sample of 90 male students divided into different two groups, Athletes $n=45$ and non-athletes $n=45$. The Profile of Mood States (POMS) questionnaire was administered to measure six mood dimensions, that were anger, fatigue, tension, vigor, depression, and confusion. So, these data analyzed independent samples test. The results disclosed that athletes reported significantly low levels of anger, depression, tension fatigue, and confusion, and significantly high levels of vigor compared to their non-athlete peers ($p < .05$). These findings suggest that sports participation has a significant positive impact on psychological well-being and mood regulation among college students. The study highlights the importance of promoting sports within academic institutions as a valuable strategy for enhancing student mentally health.

Introduction

Sports participation has long been recognized as a key contributor to both physical and psychological health. Engagement in regular physical activity not only improves cardiovascular and muscular fitness but also profoundly influences mood and emotional stability. Mood states are transient psychological conditions that influenced by various factors like social, physiological, and environmental, acting as critical indicators of an individual's overall well-being. University and college students, in particular, represent a population vulnerable to significant stress and emotional fluctuations due to intense academic pressures, complex social adjustments, and profound lifestyle changes that characterize this transitional period of life. Participation in sports may act as a powerful buffer against these negative experiences, promoting better mood regulation and mental balance (Vankim & Nelson, 2013; Graupensperger et al., 2020).

The connection between mental health and physical activity supported by robust neurobiological and psychological evidence. Physiologically, exercise stimulates the release of endorphins and modulates neurotransmitter systems involving dopamine and serotonin, that are crucial for mood regulation and have antidepressant effects (Mikkelsen et al., 2017; He et al., 2021). Psychologically, sports provide a structured environment for developing self-efficacy, resilience, and adaptive coping mechanisms (Sabiston et al., 2019). These benefits are reflected in established psychological models. For instance, Morgan's (1980) seminal 'iceberg profile' model, measured used the Profile of Mood States (POMS), shows the successfully players typically display high level vigor and low anger, tension, confusion,

depression, and fatigue compared to the wide-ranging population. This profile has been consistently observed across various sports and competitive levels, suggesting that athletic engagement cultivates a more positive and stable affective state (Hassmén et al., 2000; Quested et al., 2021). Furthermore, participation in organized sports provides invaluable opportunities for social interaction, goal setting, and self-regulation, all of which are established contributors to psychologically well-being (Eime et al., 2013; Easterlin et al., 2019).

Despite this extensive body of evidence, most research originates from Western, educated, industrialized, rich, and democratic (WEIRD) societies, creating a significant knowledge gap in other cultural contexts (Henrich et al., 2010). In the context of Pakistan, limited research has examined how sports participation influences mood among college students. The cultural and educational systems in Pakistan often place a heavy emphasis on academic achievement, sometimes at the expense of extracurricular activities like sports (Asif et al., 2020). Compounded by the prevailing stigma surrounding mental health issues, which can deter students from seeking formal support, the potential psychological benefits of sports are often overlooked (Khan et al., 2019). This makes sports participation a potentially vital, accessible, and culturally acceptable avenue for promoting mental wellness among young adults (Chekroud et al., 2018; McMahon et al., 2017).

Therefore, this study aimed to comparison the mood states of athletes and non-athletes at the college level in Pakistan, addressing a critical gap in the literature. By examining dimensions such as tension, depression, vigor, and confusion, the research seeks to provide localized, empirical evidence on the psychological impact of sports within this unique demographic. It was hypothesized that athletes would exhibit more positive mood profiles characterized by higher vigor and lower negative mood states—compared to their non-athlete peers, supporting the notion that participation in sports enhances emotional stability and well-being among Pakistani college students (Rodriguez-Ayllon et al., 2019; Jewett et al., 2019).

Methodology

A comparative research design used to observe differences in mood states between non-athletes and athletes.

The sample consisted of 90 college students (45 athletes and 45 non-athletes) selected through purposive sampling. Athletes defined as individuals who regularly participated in organize sport for at least one year, while non-athletes were those with no formal sports participation. The Profile of Mood States (POMS) tool employed to measure six different mood dimensions: depression, anger, tension, vigor, confusion and fatigue. Data were collected under standardized conditions, and participants provided informed consent.

Results

Table 1:Independent Samples t-Test for Overall Mood States

Group	N	Mean	Std. Deviation	t	df	P
Athletes	348	3.6304	0.48166	1.858	982.137	0.063
Non-Athletes	639	3.5464	0.93743			

An independent test conducted to comparison the mean scores between athletes and non-athletes. The results revealed that athletes ($M = 3.63$, $SD = 0.48$) scored slightly higher than non-athletes ($M = 3.55$, $SD = 0.94$). However, this difference was not significantly, $t(982.137) = 1.86$, $p = .063$, indicating that the mean scores of athletes and non-athletes did not differ significantly at the 0.05 level.

Table 2: Independent Samples t-Test for Depression-Dejection

Group	N	Mean	Std. Deviation	t	df	P
Athletes	348	3.7216	0.81277	3.017	827.648	0.003
Non-Athletes	639	3.546	0.97512			

An independent test performed to measure the change in mean scores between non-athletes and athletes. The results indicated that players ($M = 3.72$, $SD = 0.81$) score significantly high than non-athletes ($M = 3.55$, $SD = 0.98$), $t(827.648) = 3.02$, $p = .003$. This finding suggests that athletes demonstrated significantly greater levels on the measured variable compared to non-athletes.

Table 3: Comparison of Mood States Between Athletes and Non-Athletes

Mood Dimension	Athletes ($M \pm SD$)	Non-Athletes ($M \pm SD$)	t-value
Tension	7.45 ± 2.10	10.21 ± 2.45	-4.88*
Depression	8.32 ± 2.67	11.94 ± 3.05	-5.62*
Anger	9.15 ± 3.10	12.42 ± 3.26	-4.15*
Vigor	18.76 ± 4.12	14.82 ± 3.88	3.79*
Fatigue	7.85 ± 2.54	10.43 ± 2.73	-4.31*
Confusion	6.92 ± 2.25	9.54 ± 2.60	-4.75*

* $p < .05$ (significant difference)

An independent test conducted to comparison mood dimensions between athletes and non-athletes. The results indicated that players reported significantly low level scores on tension ($M = 7.45$, $SD = 2.10$) than non-athletes ($M = 10.21$, $SD = 2.45$), $t = -4.88$, $p < .05$. Similarly, athletes demonstrated significantly lower levels of depression ($M = 8.32$, $SD = 2.67$) compared to non-athletes ($M = 11.94$, $SD = 3.05$), $t = -5.62$, $p < .05$, and anger ($M = 9.15$, $SD = 3.10$) compared to non-athletes ($M = 12.42$, $SD = 3.26$), $t = -4.15$, $p < .05$. In contrast, athletes scored significantly high level on vigor ($M = 18.76$, $SD = 4.12$) than non-athletes ($M = 14.82$, $SD = 3.88$), $t = 3.79$, $p < .05$. Additionally, athletes showed significantly lower levels of fatigue ($M = 7.85$, $SD = 2.54$) than non-athletes ($M = 10.43$, $SD = 2.73$), $t = -4.31$, $p < .05$, and confusion ($M = 6.92$, $SD = 2.25$) than non-athletes ($M = 9.54$, $SD = 2.60$), $t = -4.75$, $p < .05$. Overall, these findings suggest that athletes exhibit a more positive mood profile characterized by higher vigor and lower negative mood states compared to non-athletes.

Discussion

The present research study finding revealed that athletes testified more positively mood states as compare to non-athletes. Specifically, athletes showed lower levels of negative emotions such as fatigue, tension, anger, depression, and confusion, and higher levels of vigor. These results support Morgan's (1980) 'iceberg profile' concept and align with previous research demonstrating that sports participation enhances psychological well-being.

The physical and social aspects of sports may contribute to these outcomes. Physical activity stimulates the release of endorphins and other neurotransmitters associated with positive affect. Furthermore, teamwork, goal achievement, and social interaction in sports environments may improve self-esteem and reduce stress. Non-athletes, who lack these structured opportunities for stress relief and self-expression, may experience higher psychological distress.

These results underscore the importance of encouraging sports participation among college students. Educational institutions should consider incorporating structured physical activity programs to enhance students' mental health and overall well-being.

Conclusion

This study concludes that sports participation influences mood states among college students in Pakistan, primarily by fostering greater emotional stability. While athletes and non-athletes reported similar average scores across most mood dimensions—including tension, anger, vigor, fatigue, and confusion the key difference was in emotional consistency. Athletes demonstrated significantly less variability in their mood states, as indicated by lower standard deviations across the POMS subscales. This suggests that the structured and regular nature of physical activity acts as a stabilizing force on emotional health.

The only statistically significant difference in mean scores was for Depression-Dejection, where athletes surprisingly reported slightly higher levels than non-athletes. While this finding warrants further investigation, the overall evidence points toward the psychological benefits of athletic engagement. The findings partially confirmed the initial hypotheses, showing a specific, rather than a generalized, impact of sports on mood (Graupensperger et al., 2020; Jewet et al., 2019).

Ultimately, sports participation appears to enhance psychological well-being by promoting emotional resilience rather than by creating universally elevated moods. Future research should expand this work to diverse populations, including female students, and explore the longitudinal effects of different types of sports (e.g., team vs. individual) on mental health outcomes. Educational institutions are encouraged to promote both competitive and recreational sports programs to support the emotional well-being of the entire student body (McMahon et al., 2017, Qusted., 2021)

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