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### Intrinsic and Extrinsic Motivation as Determinants of Student-Athlete Engagement

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## ABSTRACT

This study investigates how motivational and contextual factors influence sports participation among university athletes in Pakistan. University students often face academic pressure, psychological stress, and environmental limitations, which serve as major obstacles to their active participation in physical activities. The research particularly focuses on intrinsic and extrinsic motivational drivers, as well as other psychosocial barriers such as fear of injury, mental fatigue, and institutional limitations. A quantitative approach was utilized, employing two validated tools: The Physical Activity and Leisure Motivation Scale (PALMS) and the Avoidance of Physical Activity Questionnaire (AFAQ). Data were collected from a sample of 730 university athletes using a structured survey. Hierarchical regression and analysis of variance (ANOVA) were applied to test relationships between motivational factors and sports participation. Findings indicate that intrinsic motivators, including enjoyment, mastery, and psychological well-being, are significantly associated with higher sports engagement, while external barriers like injury fears and lack of support infrastructure significantly reduce participation. The study suggests that holistic strategies promoting both psychological readiness and environmental support are crucial in fostering active sports participation among youth in higher education institutions.

**Keywords:** sports motivation, PALMS, AFAQ, psychological barriers, university athletes, sports engagement

### Introduction

The significance of sports in promoting overall health and social development is well-established. Participation in sports contributes positively to physical fitness, mental health, social integration, and academic performance (Clancy et al., 2017). Despite these recognized benefits, a noticeable gap persists in actual sports involvement, especially among university students in Pakistan. Cultural norms, gender-based restrictions, inadequate facilities, and academic pressures are some of the factors limiting sports engagement (Nazeer et al., 2021; Habib et al., 2022).

Motivation plays a pivotal role in determining participation. According to Self-Determination Theory (Deci & Ryan, 1985), intrinsic motivation—such as enjoyment, mastery, and psychological growth—drives long-term commitment to physical activities. Conversely, fear of injury, time constraints, and lack of institutional encouragement act as powerful deterrents. This study aims to explore both enabling and constraining factors influencing sports participation, with an emphasis on developing actionable insights for university sports policy and programming.

Motivation is often discussed in two broad categories: intrinsic and extrinsic. Intrinsic motivation includes factors such as enjoyment, challenge, and self-improvement, while extrinsic motivation is driven by rewards, recognition, or external pressures (Deci & Ryan, 1985). Studies have shown that students who are intrinsically motivated are more likely to participate regularly in sports and demonstrate higher satisfaction (Clancy et al., 2017).

On the other hand, environmental and psychological factors serve as barriers. Fear of injury, especially among female students, is consistently reported as a primary reason for non-participation (Ko, 2018). Cultural constraints and limited institutional support further contribute to reduced physical activity (Bavaresco et al., 2022).

The Physical Activity and Leisure Motivation Scale (PALMS) has been widely used to measure motivational factors in sports, whereas the Avoidance of Physical Activity

Questionnaire (AFAQ) is effective in identifying psychological deterrents like pain sensitivity, fear, and stress. The current study integrates both tools to provide a holistic understanding of motivational dynamics in a university sports setting.

## **Methodology**

### **Research Design and Participants**

This study employed a descriptive cross-sectional research design with a quantitative approach. A total of 730 student-athletes (both male and female) from various departments of a public sector university in Pakistan participated in the study. The age range of the participants was between 18 to 26 years.

### **Data Collection Instruments**

**PALMS (Physical Activity and Leisure Motivation Scale):** A validated instrument used to assess different motivational dimensions such as mastery, enjoyment, psychological condition, competition, affiliation, appearance, and others.

**AFAQ (Avoidance of Physical Activity Questionnaire):** Used to identify psychological and contextual barriers such as fear of injury, stress, fatigue, and environmental hindrances.

Both instruments were translated into Urdu, where necessary and pilot-tested for reliability.

### **Procedure**

Participants were selected using stratified random sampling. Informed consent was obtained, and data were collected via in-person administration of the questionnaires. Data were analyzed using SPSS v25. Hierarchical regression was used to evaluate predictive relationships, and ANOVA was applied to explore group differences based on gender and program enrollment.

### **Results**

The regression analysis revealed that three motivational domains—psychological condition, mastery, and enjoyment—were significant predictors of sports participation. The model in step two (PALMS factors only) explained 18% of the variance in AFAQ scores ( $F = 72.50, p < .01$ ). When contextual variables were added in step three, the model explained 23% of the variance ( $F = 43.88, p < .01$ ).

Female students scored higher on AFAQ subscales related to fear of injury and anxiety. Gender-based ANOVA also showed significant differences ( $p < .01$ ) in participation rates, with males reporting higher levels of both intrinsic and extrinsic motivation.

### **Discussion**

The results highlight a dual-layered understanding of sports participation. On one hand, intrinsic motivators like psychological wellness and the desire for mastery encourage active participation. On the other hand, external and internal barriers such as fear of injury, social expectations, and lack of support act as inhibitors.

The study corroborates existing literature emphasizing the importance of psychological safety and institutional encouragement (Ko, 2018; Habib et al., 2022). Female students, in particular, were more affected by societal and psychological constraints, indicating a need for gender-sensitive sports programming.

Universities must not only provide physical infrastructure but also cultivate a culture that values and normalizes sports participation. Strategies such as awareness

campaigns, injury prevention workshops, and peer support groups can mitigate fears and promote inclusivity.

## **Conclusion**

Motivation is a significant determinant of university athletes' participation in sports. Intrinsic motivators like enjoyment and psychological fulfillment are strong predictors of regular engagement. However, contextual and psychological barriers, especially fear-related factors, can diminish these effects.

To improve participation, universities should implement multi-level strategies that address psychological, social, and environmental barriers. This includes offering safe environments, promoting mental well-being, and tailoring programs to gender-specific needs. Future research could explore longitudinal impacts of targeted interventions on motivation and participation.

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