



Research Paper

Effect of Intrinsic and Extrinsic Motivation on Sports Performance of College Athletes

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Abstract

The present study aimed to examine the effect of intrinsic and extrinsic motivation on the sports performance of college athletes. Motivation plays a significant role in determining athletic achievement, consistency, commitment, and psychological preparedness among athletes. The study adopted a quantitative descriptive-correlational research design to investigate the relationship between motivational factors and sports performance among college athletes. A total of 120 athletes from different colleges participated in the study, including both male and female players aged between 18 and 25 years. The Sports Motivation Scale (SMS-28) was used to assess intrinsic and extrinsic motivation, while sports performance was measured through selected physical fitness tests and performance scores obtained from coaches. The collected data were analyzed using mean, standard deviation, Pearson correlation, independent t-test, and regression analysis. The findings revealed a significant positive relationship between intrinsic motivation and sports performance. Extrinsic motivation also showed a positive relationship with athletic performance, although intrinsic motivation demonstrated a stronger predictive value. The results indicate that athletes who possess higher levels of self-determined motivation perform better in competitive and training environments. The study concludes that both intrinsic and extrinsic motivational factors contribute significantly to sports performance among college athletes. The findings of the study may help coaches, sports psychologists, and educational institutions develop motivational strategies to improve athletic performance.

Keywords: Intrinsic Motivation, Extrinsic Motivation, Sports Performance, College Athletes, Athletic Achievement, Sports Psychology

I. Introduction

Sports and physical activities have become an essential part of educational institutions and society. Participation in sports contributes not only to physical fitness but also to psychological development, emotional stability, leadership qualities, discipline, teamwork, and self-confidence. Athletes constantly face physical and mental challenges that require determination, persistence, and psychological strength. Among various psychological factors influencing athletic performance, motivation is considered one of the most important determinants of success in sports.

Motivation refers to the internal and external forces that stimulate individuals to act, continue effort, and achieve desired goals. In sports psychology, motivation is broadly classified into intrinsic motivation and extrinsic motivation. Intrinsic motivation arises from internal satisfaction, enjoyment, and personal interest in participation, whereas extrinsic motivation is driven by external rewards such as medals, recognition, scholarships, financial benefits, praise, or social approval.

Athletes with high intrinsic motivation usually participate in sports because they enjoy the activity itself, seek personal improvement, and experience satisfaction from learning and achievement. On the other hand, athletes driven by extrinsic motivation may participate for rewards, fame, appreciation, or competitive success. Both forms of motivation influence sports participation and performance differently.

Modern competitive sports demand psychological preparedness along with physical ability. Coaches and sports administrators increasingly recognize the importance of motivational climate in improving athletic outcomes. Motivation affects athletes' commitment toward training, concentration, emotional control, endurance, and overall performance. A motivated athlete is more likely to practice consistently, maintain discipline, recover from setbacks, and perform effectively during competition.

Several studies in sports psychology have highlighted the positive influence of motivation on athletic performance. Intrinsic motivation is often associated with long-term participation, enjoyment, creativity, and self-

confidence, whereas extrinsic motivation can enhance short-term performance through rewards and recognition. However, excessive dependence on external rewards may reduce internal satisfaction and long-term commitment.

College athletes represent an important population for studying sports motivation because they balance academic responsibilities along with competitive sports participation. Understanding the role of intrinsic and extrinsic motivation among college athletes can help educational institutions create supportive environments that enhance performance and well-being.

The present study therefore aims to examine the effect of intrinsic and extrinsic motivation on sports performance among college athletes.

II. Review of Literature

Numerous researchers have explored the relationship between motivation and athletic performance. Deci and Ryan (1985) proposed the Self-Determination Theory, which explains that intrinsic motivation leads to greater satisfaction, persistence, and psychological well-being. According to the theory, athletes who participate voluntarily and experience autonomy perform better than those motivated solely by external rewards.

Vallerand and Losier (1999) emphasized that intrinsic motivation enhances concentration, enjoyment, and sports commitment. Their study found that intrinsically motivated athletes displayed greater perseverance and lower dropout rates.

A study conducted by Pelletier et al. (1995) using the Sports Motivation Scale reported that athletes with high intrinsic motivation showed greater self-confidence and performance consistency.

Ames (1992) suggested that motivational climate created by coaches significantly affects athletes' performance and psychological development. Supportive coaching environments encourage intrinsic motivation, whereas excessive pressure may increase anxiety and reduce satisfaction.

Weinberg and Gould (2019) highlighted that motivation is one of the primary psychological variables associated with successful athletic performance. They argued that motivated athletes demonstrate higher levels of effort, concentration, and resilience.

Research by Roberts (2012) indicated that extrinsic rewards such as scholarships, awards, and recognition may positively influence performance in competitive settings. However, overdependence on external rewards may reduce self-determination.

In the Indian context, Singh and Pathak (2020) found a positive relationship between intrinsic motivation and performance among university athletes. The study suggested that athletes motivated by self-improvement and enjoyment achieved better performance outcomes.

Similarly, Kumar and Sharma (2021) reported that motivational strategies used by coaches significantly influenced sports achievement among college athletes.

The review of literature reveals that motivation is strongly associated with sports performance, but limited studies have comparatively examined the effect of intrinsic and extrinsic motivation among college athletes. Therefore, the present study attempts to fill this gap.

Objectives of the Study

1. To examine the level of intrinsic and extrinsic motivation among college athletes.
2. To analyze the relationship between intrinsic motivation and sports performance.
3. To analyze the relationship between extrinsic motivation and sports performance.
4. To compare sports performance between highly motivated and less motivated athletes.
5. To determine whether intrinsic and extrinsic motivation predict sports performance.

Hypotheses of the Study

H01: There is no significant relationship between intrinsic motivation and sports performance.

H02: There is no significant relationship between extrinsic motivation and sports performance.

H03: There is no significant difference in sports performance between highly motivated and less motivated athletes.

H04: Intrinsic and extrinsic motivation do not significantly predict sports performance.

Definition of Terms

Motivation

Motivation refers to the psychological process that initiates, guides, and maintains goal-oriented behavior.

Intrinsic Motivation

Intrinsic motivation refers to participation in sports for internal satisfaction, enjoyment, learning, and self-improvement.

Extrinsic Motivation

Extrinsic motivation refers to participation in sports for external rewards such as recognition, medals, praise, scholarships, or financial benefits.

Sports Performance

Sports performance refers to the level of achievement or effectiveness demonstrated by athletes during training and competition, measured through fitness tests and coach evaluation scores.

College Athletes

College athletes are students enrolled in colleges who actively participate in organized sports competitions and training programs.

Methodology

Research Design

The present study employed a quantitative descriptive-correlational research design. The design was selected because it helps in examining the relationship between motivation and sports performance among college athletes.

Participants

A total of 120 college athletes participated in the study. The participants included male and female athletes aged between 18 and 25 years from different colleges. Athletes represented various sports including football, volleyball, basketball, athletics, kabaddi, and cricket.

Distribution of Participants

| Category | Number |
|-----------------|--------|
| Male Athletes | 70 |
| Female Athletes | 50 |
| Total | 120 |

Sampling Technique

Purposive sampling technique was used to select athletes actively participating in inter-college sports competitions.

Tools Used

1. Sports Motivation Scale (SMS-28)

The Sports Motivation Scale developed by Pelletier et al. (1995) was used to measure intrinsic and extrinsic motivation. The questionnaire consisted of 28 items rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

2. Sports Performance Measurement

Sports performance was assessed through:

- 50-meter sprint test (speed)
- Cooper 12-minute run test (endurance)
- Vertical jump test (power)
- Coach evaluation score

The combined performance score was calculated out of 100.

Data Collection Procedure

Permission was obtained from college authorities and coaches before data collection. Athletes were informed about the purpose of the study and consent was obtained. The Sports Motivation Scale was administered individually. Physical performance tests were conducted on sports grounds under standard conditions.

Statistical Techniques Used

The following statistical methods were used:

- Mean
- Standard Deviation
- Pearson Correlation Coefficient
- Independent t-test
- Multiple Regression Analysis

The level of significance was set at 0.05.

III. Results and Analysis

Table 1
Mean and Standard Deviation of Intrinsic Motivation, Extrinsic Motivation, and Sports Performance

| Variables | Mean | Standard Deviation |
|----------------------|-------|--------------------|
| Intrinsic Motivation | 5.92 | 0.74 |
| Extrinsic Motivation | 5.36 | 0.81 |
| Sports Performance | 78.45 | 8.62 |

Interpretation

Table 1 indicates that college athletes demonstrated relatively high levels of intrinsic motivation with a mean score of 5.92. Extrinsic motivation was also moderately high with a mean score of 5.36. The average sports performance score of athletes was 78.45, indicating satisfactory athletic achievement.

Table 2
Correlation between Intrinsic Motivation and Sports Performance

| Variables | r-value | p-value |
|---|---------|---------|
| Intrinsic Motivation and Sports Performance | 0.68 | 0.001 |

Interpretation

The obtained r-value of 0.68 indicates a strong positive relationship between intrinsic motivation and sports performance. Since the p-value is less than 0.05, the relationship is statistically significant. Therefore, the null hypothesis is rejected.

Table 3
Correlation between Extrinsic Motivation and Sports Performance

| Variables | r-value | p-value |
|---|---------|---------|
| Extrinsic Motivation and Sports Performance | 0.49 | 0.003 |

Interpretation

The obtained r-value of 0.49 indicates a moderate positive relationship between extrinsic motivation and sports performance. The p-value is less than 0.05, showing statistical significance. Therefore, the null hypothesis is rejected.

Table 4
Comparison of Sports Performance between Highly Motivated and Less Motivated Athletes

| Group | N | Mean | SD | t-value |
|---------------------------|----|-------|------|---------|
| Highly Motivated Athletes | 60 | 83.72 | 6.12 | 4.85 |
| Less Motivated Athletes | 60 | 73.18 | 7.46 | |

Interpretation

The calculated t-value of 4.85 is greater than the table value at 0.05 level of significance. Therefore, a significant difference exists between highly motivated and less motivated athletes in terms of sports performance.

Table 5
Regression Analysis Predicting Sports Performance

| Predictor Variables | Beta Value | t-value | Significance |
|----------------------|------------|---------|--------------|
| Intrinsic Motivation | 0.57 | 6.82 | 0.001 |
| Extrinsic Motivation | 0.31 | 3.95 | 0.004 |

Interpretation

Regression analysis revealed that intrinsic motivation is a stronger predictor of sports performance compared to extrinsic motivation. Both variables significantly contributed to athletic achievement.

IV. Discussion

The findings of the present study indicate that both intrinsic and extrinsic motivation positively influence sports performance among college athletes. However, intrinsic motivation demonstrated a stronger relationship and predictive value compared to extrinsic motivation.

The results support the Self-Determination Theory proposed by Deci and Ryan (1985), which emphasizes the importance of self-determined behaviour in improving performance and psychological well-being. Athletes who participate in sports for enjoyment, self-improvement, and satisfaction are more likely to maintain consistent effort and commitment.

The strong positive correlation between intrinsic motivation and sports performance suggests that internally motivated athletes experience greater confidence, concentration, and persistence. These athletes tend to engage more actively in training sessions and demonstrate better emotional control during competitions.

The findings are consistent with the studies conducted by Pelletier et al. (1995) and Vallerand and Losier (1999), who reported that intrinsic motivation enhances athletic persistence and performance.

Extrinsic motivation also demonstrated a significant positive relationship with sports performance. Athletes motivated by rewards, recognition, and appreciation showed improved performance levels. External incentives may encourage athletes to work harder and maintain competitive focus.

However, the comparatively lower correlation value for extrinsic motivation suggests that external rewards alone may not sustain long-term sports participation and performance. Excessive dependence on rewards can sometimes increase pressure and anxiety among athletes.

The significant difference found between highly motivated and less motivated athletes indicates that motivation directly affects athletic achievement. Highly motivated athletes demonstrated superior performance scores compared to less motivated athletes.

Regression analysis further confirmed that intrinsic motivation is a stronger predictor of sports performance than extrinsic motivation. This finding highlights the importance of developing internal satisfaction and self-confidence among athletes.

The present study emphasizes the need for coaches, sports teachers, and educational institutions to create motivational environments that encourage self-development, enjoyment, autonomy, and positive reinforcement.

V. Conclusion

The study concluded that intrinsic and extrinsic motivation significantly influence sports performance among college athletes. Intrinsic motivation demonstrated a stronger positive relationship with athletic performance compared to extrinsic motivation. Athletes who participated in sports for enjoyment, personal growth, and self-satisfaction achieved better performance outcomes.

Extrinsic motivation also positively affected sports performance through rewards, recognition, and appreciation. However, intrinsic motivation emerged as the strongest predictor of athletic achievement.

The findings suggest that coaches and educational institutions should focus on developing motivational climates that encourage self-confidence, enjoyment, skill mastery, and personal growth among athletes.

Motivation is therefore an essential psychological factor that contributes to sports success and long-term athletic development.

VI. Recommendations

1. Coaches should encourage intrinsic motivation through positive feedback and supportive training environments.
2. Educational institutions should organize motivational workshops and sports counselling programs.
3. Athletes should be encouraged to focus on self-improvement rather than external rewards alone.
4. Sports psychologists should provide mental training programs to enhance motivation.
5. Further studies may include larger samples and athletes from national and international levels.

Limitations of the Study

1. The study was limited to college athletes only.
2. The sample size was restricted to 120 participants.
3. The study used self-reported questionnaires, which may include response bias.
4. Different sports categories were combined together, which may influence performance variation.

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