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## Comparative analysis of psychoticism personality traits in athletes from volleyball and track & field

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### Abstract

Psychoticism, as conceptualized by *Hans Eysenck*, is a personality trait encompassing impulsivity, aggression, risk-taking, and creativity. This study explores the influence of psychoticism on athletes from distinct sports disciplines-track and field (Individual) and volleyball (Team-based). Employing the Eysenck Personality Questionnaire-Revised (EPQ-R), the research examines psychoticism traits in 485 athletes categorized into three age groups: junior, youth, and senior. The study aims to evaluate differences in psychoticism levels between individual and team sports, analyse their impact on athletic performance, and provide insights for coaches and sports professionals. The findings reveal slight variations in psychoticism scores across sports disciplines, with volleyball athletes demonstrating marginally higher mean scores (11.85) compared to track and field athletes (11.39). However, an analysis of variance (ANOVA) indicates that these differences are not statistically significant ( $F = 2.33$ ,  $P = 0.073$ ). This suggests that psychoticism traits are relatively consistent among athletes, regardless of their participation in individual or team sports. Descriptive statistics further highlight moderate variability within groups, reflecting diverse manifestations of psychoticism across individuals. The study underscores the dual nature of psychoticism in sports. Traits like risk-taking and creativity can enhance performance by fostering bold decision-making and innovative problem-solving. Conversely, tendencies toward impulsivity and aggression may disrupt team dynamics and hinder disciplined training. The contextual demands of individual and team sports shape the expression and implications of psychoticism, influencing athletes' interpersonal relationships, performance outcomes, and overall adaptability. By examining psychoticism in two contrasting sports environments, this research contributes to a nuanced understanding of the interplay between personality traits and athletic performance. It emphasizes the importance of tailored coaching strategies to manage psychoticism traits constructively, enabling athletes to harness their potential while mitigating challenges. Additionally, the findings offer valuable insights into the role of personality in sports psychology, highlighting the need for further exploration of environmental and situational factors in shaping athletic behaviour and success.

**Keywords:** Psychoticism, sports psychology

### 1. Introduction

Psychoticism, a personality trait introduced by psychologist *Hans Eysenck*, is characterized by impulsivity, aggression, antisocial tendencies, creativity, and a propensity for risk-taking. Individuals with high levels of psychoticism often challenge social norms and exhibit unconventional or non-conforming behaviour. This trait manifests in various ways, including acting without forethought, showing hostility or dominance in interactions, seeking out uncertain or dangerous situations, preferring independence over societal rules, and thinking creatively to solve problems. In the context of sports, psychoticism can significantly influence an athlete's behaviour, performance, and team dynamics, offering both advantages and challenges. On the positive side, athletes with higher psychotic traits may excel in taking bold and fearless decisions, such as attempting challenging plays or strategies. Their aggressive determination can drive peak performance, and their creativity often helps in overcoming obstacles in innovative ways. However, psychoticism can also lead to potential drawbacks, including friction with teammates or coaches due to aggressive or non-conforming tendencies, impulsivity that hampers disciplined training, and a greater likelihood of unsportsmanlike conduct or rule-breaking. The influence of psychoticism varies across different sports. In contact sports like football or boxing, its traits can be advantageous

for physical dominance and resilience. Similarly, extreme sports requiring fearlessness, such as rock climbing or skydiving, align well with high psychoticism. However, in team sports like soccer or basketball, the same traits might disrupt team cohesion, despite helping individuals stand out. Coaches and team managers can benefit from understanding the psychotic tendencies of their athletes to tailor their training and management approaches. By encouraging self-control and channelling their energy constructively, coaches can help athletes leverage their creativity and competitiveness while minimizing conflicts or disciplinary issues. Ultimately, the impact of psychoticism on athletic performance depends on the sport and the individual's ability to manage its associated traits effectively. The study focuses on analysing the personality trait of psychoticism in athletes from two distinct sports disciplines: track and field and volleyball. Psychoticism, as defined by Eysenck's personality theory, includes traits such as impulsivity, aggression, creativity, and a propensity for risk-taking. These characteristics can influence an athlete's performance and behaviour differently depending on the nature of their sport. Track and field, often emphasizing individual performance and self-discipline, may align with certain aspects of psychoticism, such as independence and risk-taking. In contrast, volleyball, being a highly collaborative and team-oriented sport, might be affected more by the interpersonal and aggressive tendencies of this trait. By examining how psychoticism manifests in athletes from these two domains, the study aims to uncover variations that may be shaped by the contrasting demands of individual versus team sports, contributing to a deeper understanding of the relationship between personality traits and athletic performance.

## 2. Importance of the Study

Understanding the personality trait of psychoticism in athletes is critical for optimizing performance, enhancing team dynamics, and tailoring training programs to individual needs. Track and field and volleyball represent distinct types of sports individual and team-based, respectively offering a unique opportunity to explore how psychoticism influences athletic behavior and outcomes in different contexts. Insights from this study could assist coaches, sports psychologists, and trainers in managing traits like aggression, creativity, and risk-taking in ways that benefit athletes and teams. Moreover, the findings can contribute to the broader field of sports psychology by elucidating the interplay between personality traits and the demands of specific sports, fostering improved athlete development and overall well-being.

## 3. Objectives of the Study

1. To evaluate the levels of psychoticism in athletes participating in track and field versus volleyball.
2. To identify potential differences in the manifestation of psychoticism traits between individual and team sports.
3. To explore how psychoticism traits impact athletic performance, interpersonal relationships, and training outcomes in both sports.
4. To provide recommendations for coaches and sports professionals on managing psychoticism traits to enhance athlete performance and team cohesion.

5. To contribute to the literature on personality traits in sports and their role in shaping athletic success and psychological resilience.

## 4. Methodology

This chapter outlines the methodology and procedures adopted for the study, including the selection of subjects, administration of questionnaires, data collection, and the statistical techniques employed for analysis. The primary focus is to assess the personality trait of psychoticism among athletes using validated tools and methods.

## 5. Selection of Subjects

The study included athletes across two sports disciplines: Track & Field, Volleyball, Subjects were categorized into Junior (16-18 years), Youth (19-21 years), and Senior (22 years and above) age groups. A minimum of 150 athletes from each sport were selected, ensuring diversity and adequate representation. Eligibility criteria required participants to have competed at least at the district level, confirming a baseline standard of athletic experience and commitment.

## 6. Collection of Data

The data collection process involved the administration of the Eysenck Personality Questionnaire-Revised (EPQ-R), a tool developed by Eysenck H.J. and Eysenck S.B.G. (1975). This questionnaire is designed to measure three primary dimensions of personality: Psychoticism, Neuroticism, and Extraversion. For the purposes of this study, psychoticism was the primary variable of interest. The questionnaire evaluates traits such as aggression, tough-mindedness, non-conformity, hostility, and impulsiveness, which are associated with psychoticism.

## 7. Selection of Test Items

The Eysenck Personality Questionnaire-Revised (EPQ-R) was selected for its robust psychometric properties and relevance to the research objectives. The questionnaire provides a reliable and standardized method to assess personality dimensions, offering insights into the psychological traits of athletes across different sports. The psychoticism scale, specifically, measures characteristics that influence behaviour, decision-making, and social interactions, making it particularly suitable for analysing personality in the context of competitive sports.

## 8. Statistical Techniques

The collected data were analysed using appropriate statistical techniques to identify patterns and differences in psychoticism levels among athletes from the four selected sports. The analysis aimed to explore correlations between psychoticism traits and athletic participation in team versus individual sports, contributing to a nuanced understanding of personality's role in sports psychology.

### 8.1 Analysis of Data

The study analysed the psychoticism scores of athletes from two sports disciplines: Track & Field, Volleyball, Data were processed using descriptive and inferential statistics. Descriptive statistics included measures of central tendency (Arithmetic mean) and dispersion (Standard deviation). The results are summarized in the table below.

**Table 1:** Data and test of significance of personality scores of athletes among various sports

Variable	Sports	N	AM	SD	Source	SS	df	MS	F	P
Psychoticism	Track & Field	260	11.39	2.41	BG	33.81	3	11.27	2.33	0.073 ns
	Volleyball	225	11.85	2.07	WG	4616.04	956	4.83		

**Note:** BG = Between Groups, WG = Within Groups, T = Total, AM = Arithmetic Mean, SD = Standard Deviation, ns = Not Significant.

### 9. Summary

The analysis of psychoticism scores among athletes from track and field and volleyball revealed slight variations in mean scores, with volleyball athletes showing a marginally higher mean (11.85) compared to track and field athletes (11.39). The standard deviation values indicate moderate variability within each group. However, the analysis of variance (ANOVA) results ( $F = 2.33$ ,  $P = 0.073$ ) demonstrate that the differences in mean scores across the sports are not statistically significant. This suggests that psychoticism traits are relatively consistent among athletes, regardless of whether they participate in individual or team sports, highlighting the universality of these personality traits in competitive athletic contexts and suggesting that the observed differences in means were not statistically meaningful.

### 10. Conclusion

The analysis of psychoticism scores among athletes from different sports did not reveal any significant differences across the disciplines studied. This indicates that the trait of psychoticism is relatively consistent among athletes, irrespective of whether they participate in individual (Track & Field) or team sports (Volleyball). While minor variations in mean scores exist, they do not reach statistical significance. These findings highlight the potential universality of psychoticism traits among competitive athletes, suggesting that other factors, such as training, environment, or competition level, may play a more prominent role in shaping personality within sports contexts.

### 11. References

1. Eysenck HJ, Eysenck SBG. Manual of the Eysenck Personality Questionnaire (EPQ-R). London (UK): Hodder and Stoughton; c1975.
2. Eysenck HJ. Personality and individual differences: A natural science approach. New York (NY): Plenum Press; c1994.
3. Zuckerman M. Behavioral expressions and biosocial bases of sensation seeking. Cambridge (UK): Cambridge University Press; c1994.
4. Wilson GD. The psychology of the psychotic personality. London (UK): HarperCollins; c1993.
5. Kemp S. Psychoticism, aggression, and personality: The relationship between psychoticism and behavioral traits in athletes. *J Sports Psychol.* 1995;17(3):213-220.
6. Costa PT, McCrae RR. The five-factor model of personality and its relevance to personality disorders. *J Pers Disord.* 1992;6(3):236-246.
7. Miller RS. Psychoticism in athletes: Implications for sports performance. *J Appl Soc Psychol.* 2006;36(11):2627-2635.
8. Cloninger CR. The Temperament and Character Inventory (TCI): A guide to the development and use of the TCI. St. Louis (MO): Center for the Study of Personality and Neurobiology; c1994.

9. Vaughn LA, Hogg MA. Psychoticism and conformity: A study of the impact of personality on sports behavior. *J Sports Behav.* 2005;28(2):125-138.
10. MacLeod CM, Mathews A. Cognitive approaches to personality in sport. *J Sport Exerc Psychol.* 1997;19(4):292-306.