

Study the Relationship between Psychological Preparedness Sports Anxiety, and Sports Performance in Sportspersons

Arun Sangwan and Anjali Malik

Department of Psychology, M. D. University, Rohtak, Haryana

This study uncovers the correlation between psychological preparedness, sports anxiety, and sports performance. A comprehensive assessment of three hundred and fifty participants from various sports was conducted using the Sport Anxiety Scale (SAS) and the Psychological Preparedness Test (PPT). Performance was meticulously evaluated through the subjective tool, quality of performance (athlete's perception of their performance) and quality of performance (coach's perception of athlete's performance). The results revealed that the higher the psychological preparedness of a sportsperson, the lower the levels of his sports anxiety ($r = -0.781, p < .01$). Further psychological preparedness is positively correlated with sports performance, significant positive correlation was observed between psychological preparedness and Quality of performance (Athlete's Perception of their Performance) ($r = 0.666, p < .01$). Also, significant positive correlation found between psychological preparedness and Quality of performance (Coach's Perception of Athlete's Performance) ($r = 0.647, p < .01$). Similarly, a significant negative correlation between sports anxiety and Quality of performance (Athlete's Perception of their Performance) ($r = -0.406, p < .05$). Also, the relationship between sports anxiety and Quality of performance (Coach's Perception of Athlete's Performance) was found to be significantly inversely correlated ($r = -0.491, p < .01$). By implementing psychological preparedness programs, we could effectively reduce anxiety and enhance performance in athletes. This optimistic outlook underscores the critical role of psychological intervention training programs in athletic success.

Keywords: psychological preparedness, sports anxiety, sports performance

Athletic performance, a topic of great interest to our audience of sports psychologists, coaches, and researchers, is influenced by many physical and psychological factors. Psychological preparedness and sports anxiety, the focus of this study, are critical in determining an athlete's performance. Psychological preparedness is an essential aspect of an athlete's overall performance. It involves mental skills such as mental toughness, resilience, focus, and stress management. These skills enable athletes to handle competitive pressure effectively, maintain their composure, and execute their skills optimally during competitions (Pandian, Kumar, Kannan, Gurusamy, & Lakshmi, 2022). Psychological readiness and physical, technical, and tactical training are crucial in achieving peak performance. Sports anxiety, characterized by apprehension and nervousness experienced before or during competitions, can significantly hinder an athlete's performance (Cerin, 2003). Symptoms such as increased heart rate, tension, and self-doubt often stem from the pressure to perform well and the fear of failure. Understanding the factors influencing sports anxiety is vital for developing strategies to mitigate its impact. Sports performance, which measures an athlete's effectiveness in executing their skills

during competitions, is influenced by physical abilities, technical skills, tactical understanding, and psychological factors (Harmison, 2006). Achieving optimal performance requires harmonizing these elements, with psychological preparedness as a critical component.

The relationship between psychological preparedness, sports anxiety, and sports performance has been a focal point in sports psychology. This research, in line with previous studies, underscores the practical implications. It indicates that psychological preparedness can mitigate the negative effects of sports anxiety, thereby enhancing performance (Mahoney, Gabriel, & Perkins, 1987). Athletes who engage in mental skills training and adopt coping strategies are better equipped to handle competitive pressures, maintain focus, and execute their skills effectively. Conversely, high levels of sports anxiety can lead to performance decrements, as anxiety consumes cognitive resources that are essential for task execution (Gee, 2010). These findings directly affect the development of effective training programs and interventions in sports psychology.

Understanding the interplay between these factors is crucial for developing effective interventions that can help athletes optimize their performance. The present study investigates the relationships between psychological preparedness, sports anxiety, and sports performance in sportspersons. By exploring the intercorrelations, the study uncovers the insights that can inform the design of psychological training programs for enhancing athletic performance. Research suggests that psychologically prepared athletes can better manage the stress and anxiety associated with competition, leading to improved performance outcomes (Hagan, Pollmann, & Schack, 2017). Sports anxiety, on the other hand, can have debilitating effects on performance. It is often categorized into cognitive anxiety, which involves negative thoughts and worries,

Author Note

Arun Sangwan, Research Scholar, Department of Psychology
M. D. University, Rohtak, Haryana

Anjali Malik, Professor, Department of Psychology, M. D.
University, Rohtak, Haryana

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Correspondence concerning this article should be addressed to
Arun Sangwan, Research Scholar, Department of Psychology
M.D. University, Rohtak, Haryana

E-mail: contact.arunsangwan@gmail.com

and somatic anxiety (Hanton, Wade, & Connaughton, 2005). Sports anxiety levels higher than normal can affect the execution of skills and the sportsperson's concentration, decreasing performance (Burton & Naylor, 1997) Cognitive interference theory posits that anxiety consumes attentional resources, making it difficult for athletes to focus on the task at hand (Zhang, Woodman, & Roberts, 2018). As such, managing sports anxiety is a critical component of performance enhancement.

The Rationale of the Study

The relationship between psychological preparedness, sports anxiety, and sports performance is paramount in sports. Understanding how these factors interact can inform the development of targeted interventions to optimize athletic performance. This study seeks to contribute to this knowledge by investigating the associations between psychological preparedness, sports anxiety, and performance among sportspersons. The findings are expected to underscore the importance of psychological training programs in decreasing sports anxiety and increasing performance levels, thus providing useful information to sportspersons and sports-related professionals.

Objective of the Study

To see whether there are intercorrelations between psychological preparedness, sports anxiety, quality of performance (athlete's perception of their performance), and quality of performance (coach's perception of athlete's performance).

Hypotheses of the Study

- Higher levels of psychological preparedness are significantly correlated with lower levels of sports anxiety.
- Higher levels of psychological preparedness are significantly correlated with better sports performance.
- Lower sports anxiety significantly correlates with better sports performance.
- An athlete's perception of their sports performance is significantly correlated with their coach's perception of the athlete's performance.

Method

Participants

Three hundred fifty sportspersons both (Male & Female) from Haryana from different sports (Wrestling, Badminton, Athletics, & Football) participated in the study. Participants ranged in age from 18 to 25.

Research Design

For the present research study, "A correlational design" was adopted.

Measures

The *Psychological Preparedness Test* was developed by Gupta, Malik, and Singh in 2015 as a 30-item measure designed to evaluate an individual's level of psychological preparedness. This test utilizes a 5-point scale for rating each item. Positively worded items, such as items 4, 8, and 13, are scored from "1" (*Strongly Disagree*) to "5" (*Strongly Agree*). Conversely, negatively worded items comprising the remaining 27 are scored in reverse, from 5 (*Strongly Disagree*) to 1 (*Strongly Agree*). The test range is from 30

to 150. Higher scores indicate a higher level of psychological preparedness. The reliability of this test has been validated in prior research.

Sport Anxiety Scale (SAS) was created by Smith, Smoll, Cumming, and Gossard in 2006 to measure anxiety levels in athletes. It consists of three sub-scales, each containing five items, amounting to 15 items. These items are rated on a 4-point scale where 1 stands for "Not at all," 2 for "A little bit," 3 for "Pretty much," and 4 for "Very much." The sub-scales are as follows: somatic anxiety, worry, and concentration disruption. Higher scores on this scale reflect greater sports anxiety. The SAS shows a high test-retest reliability with a Cronbach's alpha of 0.89. The reliability coefficients for the sub-scales are 0.76 for somatic anxiety, 0.90 for worry, and 0.85 for concentration disruption.

Quality of Performance (Athlete & Coach) Ebbeck and Weiss (1988) developed two self-report questionnaires to fill the need for subjective, process-oriented, sport-specific performance evaluations. The first, Questionnaire-A, allows athletes to rate their performance using a Likert scale. It includes eight items assessing rhythm, timing, concentration, and effort, focusing on the athlete's perception, which can differ from the objective outcome. Questionnaire-C provides a coach's perspective on the same performance aspects, using identical items adapted for coaches. This dual approach offers a comprehensive view of performance quality. Feedback from three track and field coaches established face validity for both questionnaires. Internal consistency was verified through 104 individual performances, resulting in a high Cronbach's alpha coefficient of $r = .92$, indicating a reliable measurement of a unified construct.

Statistical Analysis

To analyze the data generated during the study bivariate correlations were done using SPSS statistical software.

Procedure

For the present investigation, sportspersons from different sports training facilities in Haryana were contacted; consent was obtained, and responses to the above-mentioned psychological measures were recorded in the response sheets. The scores were then analyzed using SPSS to make valuable data inferences about the relationships between psychological preparedness, sports anxiety, and sports performance.

Results

The results of the present research investigation are as follows: Table 1 shows the descriptive statistics, and Table 2 shows the correlations between different variables.

Table 1

Descriptive Statistics for Psychological Preparedness, Sports Anxiety, Quality of Performance (Athlete's Perception), Quality of Performance (Coach's Perception), N=350

Variable	Mean	SD	N
Psychological Preparedness	96.80	17.80	350
Sports Anxiety	31.57	6.48	350
Quality of Performance (Athlete's Perception)	26.07	3.10	350
Quality of Performance (Coach's Perception)	25.53	3.82	350

Table 2

Correlations for Psychological Preparedness, Sports Anxiety, Quality of Performance (Athlete's Perception), Quality of Performance (Coach's Perception), N=350

Variable	PP	SAS	QP_A	QP_C
PP	-	-.781**	.666**	.647**
SAS	-.781**	-	-.406*	-.491**
QP_A	.666**	-.406*	-	.857**
QP_C	.647**	-.491**	.857**	-

Note. "**" 0.05 significance level, "***" 0.01 significance level

Studying Table 2, the "Pearson correlation" analysis revealed a significant negative correlation between psychological preparedness and sports anxiety ($r = -0.781, p < .01$); this finding proved the first hypothesis, which states that "Higher levels of psychological preparedness are significantly correlated with lower levels of sports anxiety."

For the second hypothesis, "Higher levels of psychological preparedness are significantly correlated with better sports performance." to be proved we see the results and found a significant positive correlation between psychological preparedness and Quality of performance (Athlete's Perception of their Performance) ($r = 0.666, p < .01$). Additionally, there was positive correlation significant at 0.01 level, between the psychological preparedness and Quality of performance (Coach's Perception of Athlete's Performance) ($r = 0.647, p < .01$). Hence proving the hypothesis.

Now moving on to the third hypothesis, which states that "Lower sports anxiety significantly correlates with better sports performance," to investigate that we further explore and found a significant negative correlation between sports anxiety and Quality of performance (Athlete's Perception of their Performance) ($r = -0.406, p < .05$). Additionally, there was also, a significant negative correlation amongst sports anxiety and Quality of performance (Coach's Perception of Athlete's Performance) ($r = -0.491, p < .01$). The above results prove the third hypothesis.

Moving on to the fourth and final hypothesis, "An athlete's perception of their sports performance is significantly correlated with their coach's perception of the athlete's performance." We framed this hypothesis to validate the performance and whether the subjective point of view of athletes' perception of their performance was accurate by further testifying the athlete's performance from the point of reference of their respective coaches. The results were encouraging, and there found a significant positive correlation between Quality of performance (Athlete's Perception of their Performance) and Quality of performance (Coach's Perception of Athlete's Performance) ($r = 0.857, p < .01$). The correlation was high enough to validate that the athlete's performance was what was stated by the athlete and validated by the coach. Moving on to the discussion section, we will review the research findings considering similar previous research studies.

Discussion

The results support the above findings that higher psychological preparedness is associated with lower sports anxiety and better athlete performance. Gould, Weinberg, and Jackson (1980) did two experiments to assess whether various psychological preparation strategies affect performance in strength and whether arousal

mediates this relationship. Using different mental preparation conditions (preparatory arousal, control rest, imagery, attentional focus, and cognitive distraction), findings revealed that preparatory arousal and imagery techniques significantly enhanced performance. However, inconsistent cognitive state changes were attributed to methodological issues in self-report assessments. Weinberg (1981) reviewed the literature on mental practice and its impact on skilled performance. It concludes that mental practice enhances performance, especially when combined with physical practice. The effectiveness depends on conceptualizing ability, experience, task type, and practice length. Techniques such as preparatory arousal, imagery, attentional focus, self-efficacy statements, and relaxation are explored, with present-era methods like visuo-motor behavior rehearsal and stress inoculation training showing promise. Further controlled studies are needed to validate these findings. Mahoney, Gabriel, and Perkins (1987) explored the main skills for identifying the elite top performers. The main themes that emerged from the study were concentration, anxiety management, self-confidence, mental preparation, and motivation. These themes significantly differentiated skill levels among elite, pre-elite, and nonelite athletes. Martin and Gill (1991) investigated the correlation between state and trait psychological variables and the performance of distance runners (male athletes) in high school. Using various inventories and self-efficacy scales, it found that trait sport-confidence predicted state sport-confidence and outcome self-efficacy. State sport confidence and self-efficacy predicted performance, with outcome self-efficacy being a stronger predictor than performance self-efficacy. Mamassis and Doganis (2004) investigated the impact of a Mental Training Program (MTP), implemented over an entire season, on elite junior tennis players. The MTP group showed improvements in somatic anxiety, cognitive anxiety, self-confidence, and overall tennis performance, demonstrating the effectiveness of psychological skills training in enhancing competitive performance and addressing specific performance issues. Bertollo, Saltarelli, and Robazza (2009) examined elite modern pentathletes' preparation strategies and coping responses before, during, and after the competition. Interviews with 14 athletes revealed key strategies such as perseverance, goal setting, emotion control, and mental practice. The results highlighted the importance of psychological preparation for optimal performance and the need for individualized mental training programs. Fletcher and Sarkar (2012) employed a grounded theory methodology to investigate the link between psychological resilience and peak sports performance in twelve Olympic champions. Results showed that positive personality, motivation, confidence, focus, and social support help athletes manage stress, influencing challenge appraisal and meta-cognitions and promoting optimal performance. Ohuruogu, Jonathan, and Ikechukwu (2016) in their paper review techniques used by sports psychologists to prepare athletes for peak performance. It emphasizes integrating mental and physical training, highlighting the crucial role of sports psychologists in providing therapy for athletes affected by personal, motivational, and environmental factors. Recommendations include practicing mental skills training and accelerating injury rehabilitation. Bryan's (2017) study did not find any significant results, although it aimed to assess the influence of psychological preparedness on sports anxiety and performance in college-level dancers. A psychological skills intervention program was implemented over six weeks. Results showed no significant

differences between treatment and control groups in coping skills, pain appraisals, or injuries. Nunez Prats and Garcia Mas (2017) conducted a study that systematically reviewed the relationship between athletic performance and competitive anxiety using the Web of Knowledge database. Despite the recurring theme in sports psychology, findings indicate insufficient evidence to clarify how anxiety impacts performance. Vecenane and Vazne (2020) studied that athletic success hinges on physical and psychological fitness, with mental toughness essential for handling stress. This study examined autogenous training (AT) in young female volleyball players, finding significant improvements in their well-being. Post-intervention, 7.7% mastered AT techniques, 30.8% found them easy but inconsistent, 53.8% had occasional success, and 7.7% struggled with AT acquisition. Смоленцева and Маснюк (2021) found that the results of biathlon shooting activities underscored the need to explore and enhance athletes' psychological preparedness using psychological interventions. Psychotraining tailored to winter biathlon athletes focused on regulating emotions, controlling breathing, sustaining attention, and managing muscle tension during shooting. Positive outcomes indicated improved individual psychological traits, enhancing performance results in biathlon shooting.

So, finally, it can be concluded that the study's research results were in line with the existing research literature and further validated the findings.

Implications of the Study

- Psychological preparedness is crucial during the preparatory training phase of any sportsperson, as it builds resilience, mental strength, confidence, and adaptability.
- The management of sports anxiety is essential for sports performance, as optimal arousal is required for better performance.
- For the all-round development of sportspersons, any comprehensive psychological training program must be included in their training regimen from the grassroots level.
- Routine evaluation of sports performance using different parameters is essential for continued progress and breaking the performance plateau.
- The coach's and athlete's perspectives must be discussed and aligned for better coordination and teamwork.

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