

# RELATIONSHIP BETWEEN COMPETITION ANXIETY, AGGRESSION AND SPORTS PERFORMANCE AMONG ATHLETES



by

NOUF  
Bsp201005

A Research Thesis submitted to the  
DEPARTMENT OF PSYCHOLOGY  
in partial fulfillment of the requirements for the degree of  
BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Sciences  
Capital University of Science & Technology,  
Islamabad  
January, 2024

BSP201005

Department Of Psychology

JANUARY

2024

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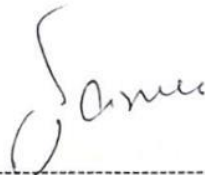
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## CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled "relationship between competition anxiety, aggression and sports performance among athletes" carried out by Nouf, Reg. No. BSP201005, under the supervision of Mr. Muhammad Naeem, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

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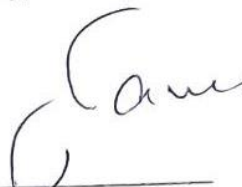
**Relationship between Competition Anxiety, Aggression and Sports  
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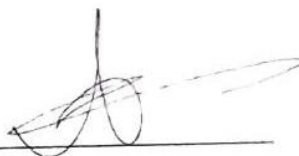
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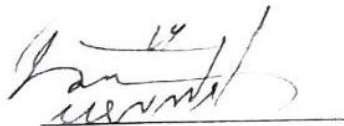
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BSP201005

January, 2024

## ACKNOWLEDGMENT

I am deeply thankful to my supervisor, Ms. Iqra Kiran, for her exceptional guidance, patience, and commitment to my academic development.

I extend my sincere appreciation to my friends, who directly contributed to the completion of my research thesis. Their unwavering support and encouragement played a vital role in overcoming challenges during the research process. Whether providing feedback on drafts, brainstorming ideas, or offering moral support, their assistance greatly impacted the quality and success of my work, making this journey more rewarding.

Lastly, I want to convey my gratitude to my family for their love, understanding, and continuous encouragement throughout this journey. Their steadfast support has been a constant source of strength, and I am thankful for their unwavering belief in me.

With heartfelt appreciation,

Nouf

## ABSTRACT

In sports, psychological factors can affect the overall performance of athletes. This study highlights how competition anxiety and aggression can possibly affect the performance of athletes in Pakistan. The current study aimed to find out the relationship between competition anxiety, aggression, and sports performance among athletes. For which purpose, a total of 250 males and females athletes were selected from Rawalpindi/Islamabad. The researcher administered sport competition anxiety test (Martens, R 1977), buss-Perry aggression questionnaire (BPAQ, 1992) and athletics subjective performance scale (Nahum et al., 2016) for measuring the major constructs such as competition anxiety, aggression, and performance. The results of the study indicate that there was positive significant relationship between competition anxiety and aggression among athletes. However, a significant gender difference was observed in terms of competition anxiety, aggression and sport performance, with male athletes reporting higher levels of aggression compared to females and female athletes reporting high level of competition anxiety and subjective performance compared to male. Furthermore, the results of the study indicate positive relationship between aggression and sport performance among athletes. Moreover, negative relationship between competition anxiety and sports performance among athletes was observed. These findings highlight the importance of recognizing the impact of psychological factors on athletes for coaches and trainers. More research is required to make sure these findings are accurate and to better grasp how competition anxiety, aggression, and sports performance are connected in sports.

**Keywords:** Competition Anxiety, Aggression, Sports Performance, Athletes.



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## Chapter 1

### Introduction

Various kinds of sports are essential for physical, psychological, and emotional well-being. Therefore, sports hold an important place in every athlete's life. Sports psychology is an advanced field that investigates the understanding of psychological factors that effects athletic performance. In the realm of sports, a competitive environment prevails, characterized by challenging and demanding situations that can induce distress for athletes (Singh, 2022). Within this context, athletes are required to deliver their optimal performance levels, often under high-pressure scenarios that have the potential to significantly impact their overall performance. There are many psychological constructs that could influence athletes' performance in sports contests. Competition requires physical, mental, and emotional toughness. The sociopsychological factors are crucial in encouraging athletes to display their best work during competition (Sharma & Kanojiya, 2021).

### Competition Anxiety

Competition is an integral aspect of sports and often evokes a wide range of emotions among athletes, including anxiety. Competition anxiety is the term used to describe the anxiety symptoms experienced by athletes when they face high-stakes competitions, before and during the competition. The anxiety experienced in competitive sports by athletes is named competition anxiety. Athletes competing in individual events experience more anxiety than in team (Thakur, 2016). When an athlete feels anxious the physical symptoms include palpitating of the heart, sweaty palms or weakness in knees etc. Competition anxiety is a common psychological state

experienced by athletes when facing competitive situations. It involves feelings of apprehension, nervousness, and worry, which can hinder an athlete's performance. When athletes perceive a competition as threatening or highly important, they may experience physiological arousal and negative thoughts. Competition anxiety has two main types: State anxiety and Trait anxiety. State anxiety is a temporary emotional state experienced by athletes before or during competition. It includes feelings of tension, nervousness, worry, and apprehension. Trait anxiety, on the other hand, represents a stable predisposition towards experiencing anxiety across various situations (Gumusdag, 2013). Athletes with higher trait anxiety may be more susceptible to experiencing heightened state anxiety in competitive environments. State anxiety has a multi-dimensional structure. Competition anxiety can have dual effects on sports performance, encompassing both positive and negative outcomes. The average amount of anxiety can enhance performance by increasing activation, attention, and inspiration, which can optimize an athlete's attentional capacity and readiness to perform.

Competitive anxiety in young athletes is a significant area of study due to its potential impact on emotional development and performance in sports. This research focuses on differentiating between somatic anxiety, worry, and concentration disruption in youth athletes. It aims to understand the cognitive and physiological components of anxiety and their effects on performance in competitive sports. The study also explores the potential differences in anxiety experiences between younger and older athletes, as well as between male and female athletes. Understanding and addressing competitive anxiety in young athletes is crucial for promoting their emotional well-being and optimizing their performance in sports (Grossbard et al., 2009).

Competition anxiety is a type of anxiety that athletes experience in competitive situations, where they perceive the competitive position as a threat. This anxiety can lead to feelings of worry and stress, which can negatively impact an athlete's performance. It is a common psychological factor that can affect athletes of all levels, from amateur to professional. Understanding and managing competition anxiety is important for athletes to perform at their best and achieve their goals. (Jamshidi et al., 2011).

### **Aggression**

Aggression is overt or covert behavior that can cause psychological or physiological harm to oneself or another person, either through verbal or physical actions. It will not be out of place to say that Sports competition without “aggression” is a body without soul (Thakur, 2016). Aggression within the context of sports refers to behavior intended to harm or gain an advantage over opponents, teammates, or officials. It can take various forms, such as physical aggression (e.g., aggressive tackles in football) or verbal aggression (e.g., trash-talking). Aggression in sports is influenced by factors like competitive pressure, frustration, and the desire to assert dominance. When there is any negative emotion in sport competitions, it can affect the thoughts of an athlete which can lead to a decrease in better performance overall. Sport competitions require aggressive behavior on a certain level and often trigger it, leading to a high level of achievement. The levels of anxiety and aggression vary among players and can differ across different situations, highlighting the individual and context-dependent nature of these psychological factors. In the sporting context, aggression can be classified into two primary types: instrumental aggression and hostile aggression. Instrumental aggression is strategic and goal-directed, where athletes engage in aggressive behaviors to achieve specific objectives within the game. This form of

aggression may involve assertiveness, determination, and a competitive drive. Hostile aggression, on the other hand, arises from anger, frustration, or the desire to harm others, often because of competitive situations. It is characterized by impulsive and reactive aggressive behaviors, driven by negative emotions. Aggression, as a general phenomenon, can yield both positive and negative outcomes, contingent upon individual differences. In sports, where intensity is heightened, aggression can serve as a motivating factor that pushes players to invest greater effort and display unwavering determination for the team's success. This amplified level of engagement can potentially enhance performance on the field. (Krishnaveni & Shahin, 2014).

Aggression in sports is a complex and multifaceted phenomenon that can significantly impact athletes' performance and behavior. The competitive nature of sports, combined with high emotional stress and the pressure to achieve success, creates an environment where aggression may manifest. This aggression can take various forms, including physical, indirect, and verbal aggression, as well as hostility and conflict. The specific sport and the level of competition can influence the prevalence and characteristics of aggressive behavior among athletes. Understanding the triggers and manifestations of aggression in sports is crucial for coaches, trainers, and sports psychologists to effectively support athletes in managing their emotions and maintaining a positive competitive mindset (Tetiana et al., 2021).

Aggression in sports is a complex and multifaceted phenomenon that has long been intertwined with the competitive nature of athletic performances. It stems from the innate human drive for excellence and the desire to demonstrate supremacy, both at an individual and national level. This competitive spirit serves as a catalyst, inspiring athletes and nations to push their limits, strive for greater achievements, and excel in



the intensely competitive world of sports. The concept of aggression in athletics encompasses a range of behaviors, from physical acts against opponents to the display of intense motivation and energy. It is a topic of significant interest and importance, as it influences not only individual athletic performances but also the dynamics of sports competitions and the broader societal attitudes towards sportsmanship and competition. (Tomar & Singh, 2012).

Positive emotions are commonly acknowledged as advantageous for an athlete's performance, whereas the connection between negative emotions, specifically competitive anxiety, and performance appears to be less conclusive. While some perspectives perceive anxiety as an impediment to athletes' performance, labeling an anxious athlete as weak, there exists an alternative viewpoint that considers anxiety as a driving force. This perspective highlights athletes who demonstrate exceptional performance solely under the intense pressure of competition and the heightened state of anxiety it elicits.

### **Sports performance**

Sports performance is a multidimensional construct that encompasses various physical, technical, tactical, and psychological factors contributing to an athlete's success in competitive sports. It represents the ability to execute skills effectively, make optimal decisions, and achieve desired outcomes in each sporting context. Athletes often face high-pressure situations during competitive events, which can elicit various emotional responses and behavioral tendencies. Competition anxiety and aggression have the potential to influence an athlete's performance, which is the ultimate measure of success in sports. Some levels of anxiety and aggression can be beneficial,

facilitating optimal performance by increasing arousal and motivation, excessive or maladaptive levels may hinder performance outcomes. (Kousar et al., 2022).

Understanding the relationship between competition anxiety, aggression, and sports performance is of great importance for athletes, coaches, and sports psychologists. By investigating these constructs, researchers can gain insights into the psychological mechanisms that impact athletes' performance and well-being. Furthermore, such research can inform the development of effective interventions and strategies aimed at optimizing performance and managing psychological factors in sports settings. The relationship between competition anxiety and athletic performance has been a topic of extensive research, with differing perspectives emerging regarding the impact of anxiety on athletes' performance outcomes. While anxiety is commonly viewed as detrimental to performance, there is a contrasting viewpoint that perceives anxiety as a driving force that enhances performance under pressure. (Palazzolo, 2020).

The field of sports performance encompasses the study of various psychological constructs and dimensions that influence athletes' abilities and achievements. Over the past two decades, there has been a significant shift in the theoretical paradigms used to understand the mental abilities of athletes and their impact on performance. This evolution has led to a more comprehensive framework for examining both the positive and negative influences on sports performance. As a result, contemporary research in this area has become more interdisciplinary, integrating insights from fields such as psychology, physical education, and sports science. This shift has important implications for coaches, trainers, and athletes seeking to enhance performance through a deeper understanding of the psychological factors at play (Pierpaolo & Antonia , 2018).

Previous studies have addressed this topic and discussed the subject matter in question the individual effects of competition anxiety and aggression on performance, the specific relationship between these factors and their combined influence remains relatively underexplored, particularly within the context of athletes in Pakistan. This quantitative research aims to bridge this gap by investigating the relationship between competition anxiety, aggression, and performance among athletes in Pakistan. The aim of this study is to find the relationship between competition anxiety, aggression, and sports performance among athletes.

### **Literature Review**

The cognitive perspective on competition anxiety, as elucidated by Martens, Vealey, and Burton in their seminal work published in 1990, posits that anxiety emerges from an individual's cognitive interpretation and evaluation of competitive situations. These interpretations often encompass perceiving the competition as a potential threat to one's self-worth or as an opportunity for personal growth and challenge. The authors underscored the significance of recognizing that individuals with heightened competition anxiety tend to exhibit pessimistic interpretations, wherein the competition is regarded as a threat rather than a stimulating challenge. This adverse appraisal exacerbates the anxiety response and can engender a self-fulfilling prophecy of subpar performance (Martens et al., 1990).

When individuals assign significant importance to the outcome of a competitive event, it amplifies the pressure to succeed, ultimately resulting in heightened anxiety levels. The perceived significance of the outcome can trigger performance anxiety and instill a fear of failing to meet expectations. A study conducted by Donovan and Holewa in 2008 substantiated these observations by demonstrating a positive association

between higher levels of competition anxiety and the increased perception of outcome importance among young athletes (Donovan & Holewa, 2008).

The study presents a comparative study of Sports Competition Anxiety within Jimma University Male Players participating in various sports. The study aimed to analyze and compare the level of Sports Competitive Anxiety among football, basketball, table tennis, athletics, and gymnastics players. The Sports Competition Anxiety Test (SCAT) was used to measure anxiety, and statistical analyses, including descriptive statistics and independent t-tests, were employed to compare anxiety levels among the different sports. The results indicated significant differences in Sports Competition Anxiety among the male players. The study addresses the impact of anxiety on sports performance and aims to fill the gap in research on sports competition anxiety at the university level in Ethiopia (Khan & Sorate, 2016).

Mellalieu et al (2004) delve into the relationship between competitive anxiety and sport type, considering the intensity and direction of anxiety experienced by athletes in different sports. This study offers important vision into the intricate nature of competition anxiety by examining the potential variations in anxiety levels across various sports and levels of experience. The findings shed light on the distinct characteristics of anxiety experienced in different sporting contexts, contributing to a better understanding of this phenomenon. Considering the variability in anxiety experiences among athletes, this research contributes to our understanding of the potential interactions between anxiety, aggression, and sports performance (Mellalieu et al., 2004).

The study explored the mediating role of emotional intelligence in the relationship between competition anxiety and aggression in youth football players. The

findings showed that emotional intelligence partially intervenes the relationship, suggesting that higher emotional intelligence may mitigate the impact of competition anxiety on aggression (Oliveira et al., 2020).

In a thorough examination conducted by Shamsher Kasnia and Ravinder Pal Ahlawat (2018), the research aimed to unravel the psychological aspects within female hockey players, specifically those designated as attackers and defenders. Surprisingly, the study disclosed that there wasn't a noteworthy distinction in anxiety levels between players in these distinct roles. This unexpected discovery challenges conventional beliefs about position-related anxiety in hockey, prompting a reevaluation of the factors influencing the mental states of players in different positions on the field. Despite the absence of significant differences in anxiety, the study unearthed a fascinating dimension, a marked contrast in aggression levels between the two groups of players. This revelation sheds light on a potentially intriguing dynamic within the sport, suggesting that the nature of aggression may vary more distinctly based on player roles rather than anxiety levels. The study's nuanced approach, delving into both anxiety and aggression, provides a more holistic perspective on the psychological landscape of female hockey players. This research underscores the need for tailored interventions and support strategies that consider the unique psychological demands associated with different positions in the sport. By exploring the intricacies of both anxiety and aggression, this study makes a valuable contribution, fostering a deeper understanding of the multifaceted psychological aspects shaping athletes' experiences in the competitive realm of hockey (Kasnia & Ahlawat, 2018).

In a study conducted by Sevi et al. (2019), a thorough analysis uncovered a noteworthy distinction in levels of sports anxiety and aggression when comparing Volleyball and Basketball players. The research shed light on the nuanced

psychological dynamics within distinct sports, emphasizing that athletes in these two disciplines may experience and express anxiety and aggression differently, potentially influenced by the unique demands and characteristics of each sport (Sevi et al., 2019).

The study explores the relationship between aggressive behavior and anxiety in women kabaddi players. The study, conducted in Karnataka, aims to understand the psychological aspects of these athletes. The researchers administered questionnaires to 30 aggressive behavior players and anxiety players to assess their levels of aggression and anxiety. The findings of the study provide valuable insights into the psychological dynamics of women kabaddi players, shedding light on the interplay between aggressive behavior and anxiety in the context of sports performance. This research contributes to the growing body of knowledge in sports psychology and has implications for the development of tailored training and support programs for women kabaddi players. The study underscores the importance of considering psychological factors in the training and preparation of athletes, and it opens avenues for further research in this area (Shilpashree & Pujari, 2019).

In a study comparing the levels of aggression and anxiety among inter-collegiate and inter-university sportspersons, significant differences were observed. The findings indicated that anxiety levels were higher among inter-collegiate level players compared to inter-university level sportspersons. On the other hand, inter-university level sportspersons displayed higher levels of aggression in comparison to inter-collegiate level sportspersons (Singh, 2022).

Focusing on the influence of personality dimensions on coping strategies in sports, Kaiseler et al., (2012) investigate how individual differences may shape the way athletes manage competition anxiety and aggression. The study investigates the

influence of the Big Five personality traits on appraisal processes, coping strategies, and coping effectiveness within the context of sports. It explores how these personality traits impact the ways in which individuals assess and interpret situations, the strategies they employ to cope with stress, and the effectiveness of those coping mechanisms in a sporting context. By examining the role of personality in the context of competition, this research provides insights into the individual factors that may influence athletes' responses to anxiety and aggression during performance (Kaiseler et al., 2012).

In a recent study conducted by Zupančič and Tušak (2020) examined the relationship between competition anxiety and aggression in young athletes. The study aimed to explore how competition anxiety levels relate to aggressive behaviors displayed by athletes. The researchers conducted a quantitative investigation using a sample of young athletes from various sports. Participants completed measures assessing competition anxiety and aggression. The finding of the study suggested a positive relationship between competition anxiety and aggression in young athletes. The results demonstrated that high amount of competition anxiety was linked to elevated levels of aggression. This suggests that athletes who experience heightened anxiety during competitions may be more inclined to exhibit aggressive behaviors. (Zupančič & Tušak ,2020).

Similarly, a study by Bowers and Visek (2018) investigated the relationship between competitive anxiety and aggression in amateur athletes. The study aimed to explore how competitive anxiety and aggression levels relate to outcomes in this population. The researchers conducted a quantitative study involving amateur athletes from various sports. Participants completed measures assessing competitive anxiety and aggression. The findings of the study suggested that there was a significant positive

correlation between competitive anxiety and aggression, among amateur athletes (Bowers & Visek, 2018).

Furthermore, studies have examined the interaction between competition anxiety and aggression. Martens (2003) conducted a study investigating the relationship between anxiety and aggression in athletes. The findings revealed a weak positive relationship between these factors, suggesting that as anxiety levels increased, aggression levels also increased. However, it is worth noting that this correlation was not statistically significant, indicating that the relationship may be influenced by other variables (Martens et al., 2003).

The research examines the impact of mental training on aggression and anxiety related to sports competition in female intercollegiate volleyball players. The study, involving twenty participants, divided them into a mental training group and a control group. The mental training group underwent a six-week program, contrasting with the control group engaging in regular activities. Assessment of mental training effects utilized standardized questionnaires measuring aggression and sports competition anxiety. Results revealed significant improvements in both aggression and sports competition anxiety within the mental training group, while the control group did not display noteworthy changes in these aspects. This study underscores the significance of incorporating mental skills training to enhance the psychological well-being and performance of athletes (Subathra et al., 2021).

The systematic review focuses on aggression in soccer and its impact on sports performance. The authors reviewed a range of studies exploring different aspects of aggression in soccer, including its prevalence, causes, and consequences. The review highlights the multifaceted nature of aggression in soccer, encompassing verbal,



physical, and indirect aggressive behaviors. It also discusses the potential consequences of aggression, such as penalties, injuries, and disciplinary sanctions, which can negatively impact individual and team performance. The article emphasizes the importance of managing aggression in soccer and promoting fair play to ensure optimal performance and athlete well-being (Oliveira et al., 2012).

The investigation of aggression has garnered significant attention in various academic disciplines, encompassing psychology, sociology, and biology. Researchers from these fields have extensively explored the origins, outcomes, and underlying mechanisms of aggressive conduct. A noteworthy contribution to this area of study was made by Anderson and Bushman in 2002. Their research delved into the impact of exposure to violent media on aggressive behavior. The study established a notable correlation between exposure to violent media content and subsequent escalation in aggressive thoughts, emotions, and actions. This investigation shed light on the potential influence of environmental factors, particularly media violence, in shaping aggressive tendencies (Anderson & Bushman, 2002).

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Environmental factors also contribute to the development of aggression. The exposure to violence and aggression in one's environment, such as within the family or community, can influence aggressive tendencies. A study by Bandura demonstrated that children who witnessed aggressive behavior in a social learning experiment were more likely to exhibit aggressive responses themselves. This highlights the influence of observational learning and environmental modeling on aggressive behavior (Bandura et al., 1963).

Aggressive behavior can have significant consequences, including physical harm and injury to both the aggressor and the victim. Such behavior can lead to immediate physical pain, injuries, and potential long-term health implications. For instance, a study conducted by Felson and Lane in 2010 demonstrated that engaging in physical aggression was a strong predictor of injury occurrence, emphasizing the direct impact of aggressive behavior on individuals' physical well-being. These findings highlight the importance of recognizing and addressing the harmful consequences of aggression to promote safer and healthier environments (Felson & Lane, 2010).

Research studies also depicted aggressive behavior by an athlete can distract and negatively affect performance of not only athletes but team. Furthermore, the study also conducted that poor team performance is correlated with increased aggression (Krishnaveni & Shahin, 2014).

This study explored the relationship between moral disengagement, aggression, and sports performance. The findings indicated that athletes who exhibited higher levels of moral disengagement were more likely to engage in aggressive behaviors, which, in turn, negatively affected their sports performance. This suggests a detrimental impact of aggression on sports performance (Kavussanu & Ring, 2017).

The study explores the relationship between moral functioning, achievement goals, and aggressive behavior in sport. It discusses how different achievement goals (e.g., task-oriented, ego-oriented) can influence an athlete's moral reasoning and subsequent aggressive behavior in competitive situations. The study examines the role of achievement goals in mediating the relationship between moral functioning and aggression. The findings highlight that athletes with higher ego-oriented goals and lower task-oriented goals tend to engage in more aggressive behavior. The article suggests that fostering task-oriented goals and promoting positive moral functioning can contribute to a more positive and sportsmanlike sporting environment (Kavussanu & Roberts, 2001).

In their study, Kavussanu and Boardley (2009) conducted an investigation into the link between aggression and sports performance. The findings revealed that heightened levels of aggression were connected to a decrease in performance and compromised decision-making abilities among athletes. The review shed light on the adverse impacts of aggression on sports performance, highlighting the necessity for interventions that address aggressive behaviors and foster positive sporting environments. Recognizing the correlation between aggression and sports performance holds great significance for coaches, athletes, and sports organizations, as it enables the creation of supportive and conducive settings that enhance overall athletic performance (Kavussanu & Boardley, 2009).

Addressing aggression as a pervasive issue in sports games worldwide, a study focused on examining the psychological factor of aggression and its influence on the performance of female handball teams in the Sargodha District. The research findings indicated a noteworthy correlation between aggression and players' performance. Furthermore, the study revealed that effective reinforcement strategies and winning

matches had a positive impact on the overall performance of female handball players. These results recognize the importance of addressing and managing aggression in sports, particularly among female athletes, and emphasize the significance of employing effective reinforcement techniques and achieving success in enhancing performance outcomes in handball (Kousar et al., 2022).

The study discussed highlights the concept of aggressiveness as a behavior associated with the intention to harm or injure. While some sports require a certain level of aggression that is permitted within the context of the game, it is important to understand how sports competitions can trigger aggressive behavior. The specific result of the study indicates a direct negative relationship between aggression and achievement in male kumite athletes in the sport of Karate. It suggests that as athletes achieve higher levels of success, there is a subsequent decrease in their overall performance, indicating an inverse relationship. Furthermore, the study reveals a positive direct relationship between the level of aggressiveness and Karate martial arts achievements in male kumite athletes. This means that as the athletes' aggressiveness increases, their achievement levels also increase. Lastly, the study identifies an indirect relationship between achievement and the level of aggressiveness, suggesting that higher levels of anxiety among athletes are associated with decreased aggressiveness and subsequently lower achievement levels. These findings provide valuable insights into the complex dynamics between aggression, anxiety, and achievement in the context of Karate martial arts competitions for male kumite athletes (Purba & Situmeang, 2019).

In terms of aggression, research has explored the impact of different forms of aggression on sports performance. A study by Kavussanu and Roberts (2001) investigated the relationship between aggression and performance in soccer players.

The results indicated that higher levels of aggression were associated with increased performance, as it enhanced motivation and arousal levels. However, it is important to note that this relationship may be influenced by factors such as sport type and individual differences (Kavussanu & Roberts, 2001).

A particular study highlighted that sports anxiety serves as a significant predictor for players' sports performance, with female players exhibiting higher levels of sports anxiety and subjective performance compared to their male counterparts. The investigation delved into the influence of sports anxiety on the overall sports performance of players, emphasizing the noteworthy role that anxiety levels play, especially among female athletes. Recognizing and addressing sports anxiety becomes pivotal in enhancing the performance outcomes of players, contributing to a comprehensive understanding of the dynamics between anxiety and sports achievements. (Bukhari et al., 2021).

Competition anxiety has a significant negative impact on performance as one of its primary consequences. When individuals experience high levels of anxiety, it impairs their concentration, focus, and ability to execute skills effectively. Consequently, their performance is diminished, resulting in suboptimal outcomes. Craft (2003) conducted a study that substantiated this relationship, revealing a negative correlation between competition anxiety and performance in young athletes. This research highlights the destructive impact of anxiety on athletic performance (Craft et al., 2003).

According to study, Competition anxiety refers to the psychological state of apprehension, worry, and tension experienced by athletes before or during competitive events. It is a common phenomenon among athletes and can significantly impact their

performance outcomes. Research has shown that competition anxiety is characterized by physiological arousal, cognitive interference, and negative affective states. High levels of competition anxiety have been associated with reduced focus, attentional disruptions, decreased self-confidence, and impaired motor performance. Studies have utilized various measures to assess competition anxiety; these measures have demonstrated good reliability and validity in capturing the multidimensional nature of competition anxiety among athletes (Smith et al., 1992; Martens et al., 1990).

The study examined the effects of competition anxiety on sports performance and achievement motivation. The findings revealed a negative correlation between competition anxiety and sports performance, showing that high amount of anxiety were linked with poorer performance outcomes (Yildiz, 2018).

In this particular study, the focus was on exploring how competitive anxiety impacts perceived exertion, mood state, and performance during a graded exercise test. The findings pointed towards a noteworthy connection where elevated levels of competition anxiety were linked to heightened perceived exertion and a negative mood state. These factors, in turn, had an impact on the overall performance outcomes of the individuals undergoing the graded exercise test. The study sheds light on the intricate relationship between competition anxiety, perception of exertion, mood, and subsequent performance, contributing valuable insights to understand how psychological factors can influence physical outcomes during exercise (Campbell et al., 2020).

In this insightful study, researchers took a closer look at how athletes navigate the realm of competitive anxiety in the week leading up to a competition. Their focus was on exploring various dimensions of this anxiety, such as its intensity, direction, and

frequency. The goal was to gain a nuanced understanding of how athletes both feel and show anxiety in the context of impending competition. The study's findings revealed that the way anxiety unfolds, its pattern and intensity, can significantly impact how athletes perform during the actual competition. This research delves into the intricate details of athletes' mental states, offering valuable insights that could inform strategies to better support athletes in managing and harnessing their anxiety for optimal performance outcomes (Terry & Hanton, 2018).

The study examined the relationship between competition anxiety and sports performance in athletes from different sports. The researchers found that the strength and control of competitive anxiety varied over sport types. Athletes who experienced higher levels of anxiety in competition reported lower performance levels, suggesting a negative relationship between competition anxiety and sports performance (Mellalieu et al., 2004).

Another study was concentrated on measuring and exploring the factors associated with sport-specific anxiety. The researchers developed a tool called the Sport Anxiety Scale, specifically designed to evaluate cognitive and somatic trait anxiety among athletes. The findings of previous studies suggested a negative relationship between higher levels of anxiety and sports performance, suggesting that competition anxiety has an adverse effect on an athlete's overall performance. (Smith et al., 1990).

Gender differences can be observed in the relationship between competition anxiety and performance outcomes, with females potentially experiencing a more significant negative impact. Mellalieu (2009) conducted research that demonstrated higher levels of competition anxiety having a more pronounced detrimental effect on the performance of female athletes compared to their male counterparts. These findings

suggest that anxiety may exert a stronger influence on performance outcomes for females within competitive contexts (Mellalieu et al., 2009).

Study examined a comparison of anxiety and aggression level between male and female players. The researchers found that Male players according to studies have been found to be more aggressive than female players. Female players on the other hand, experience higher levels of anxiety. Studies also suggest that aggression and competition are closely related concepts (Thakur, 2016).

Extensive research consistently demonstrates that there are notable gender differences in the expression of aggression, particularly in terms of physical aggression. A meta-analysis conducted by Archer in 2004 examined studies from various countries and age groups and consistently found that males tend to exhibit higher levels of physical aggression compared to females. The analysis revealed a consistent pattern of males reporting greater involvement in physically aggressive behaviors than females. These findings highlight a robust gender difference in the manifestation of physical aggression, underscoring the importance of understanding and addressing these distinctions in aggression research and intervention efforts (Archer, 2004).

Gender differences in sports performance are commonly attributed to physiological distinctions between males and females. Males generally possess greater muscular strength, power, and speed, providing them with advantages in sports that necessitate these attributes. In a study conducted by Drinkwater (2008), an investigation into gender differences in physical performance revealed that males generally outperformed females in activities that demanded upper body strength and anaerobic power. These findings highlight the influence of physiological disparities on gender-based variations in sports performance, emphasizing the importance of considering



these factors when analyzing athletic achievements across genders. (Drinkwater et al., 2008).

Extensive research has been conducted by experts and professionals in the field of sports science to comprehensively examine sports performance, its determinants, and methods for enhancing athletic achievement. A noteworthy study by Huijgen, Elferink-Gemser, and Visscher in 2013 made significant contributions in this area. Their research delved into the factors that impact sports performance among young athletes. The study highlighted the critical role of physical attributes such as speed and power, technical skills encompassing technique and accuracy, tactical understanding involving decision-making and game sense, and psychological factors including motivation and concentration. This investigation underscored the multifaceted nature of sports performance, emphasizing the need to consider and address a range of factors that influence an athlete's overall success (Huijgen et al., 2013).

The performance of athletes in sports is not solely dependent on their inherent physical and mental abilities but also on the contextual factors surrounding their competitive environment. These environmental factors play a crucial role in shaping an athlete's performance outcomes. Weather conditions, altitude, equipment quality, and the presence of a supportive crowd or competitive atmosphere are among the influential factors that can significantly impact sports performance. In a study conducted by Noakes (2000), the effects of environmental factors on athletic performance were examined in detail. The findings underscored the notion that these factors can exert an influence on an athlete's physical and physiological capacities, subsequently affecting their overall performance. By acknowledging and comprehending the impact of the environment, athletes and coaches can better equip themselves to prepare, adapt strategies, and optimize sports performance (Noakes, 2000).

Participating in sports and attaining exceptional levels of performance can be instrumental in fostering personal development and facilitating individual growth. Successful engagement in sports has the potential to elevate one's self-esteem, self-confidence, and self-efficacy. In a study conducted by Harwood (2015), the psychological effects of sports participation were explored, revealing a significant correlation between high levels of sports performance and heightened self-esteem, as well as positive psychological well-being. These findings highlight the positive impact that sports can have on an individual's sense of self-worth and overall mental health. By recognizing and acknowledging the psychological benefits of sports performance, individuals can harness the transformative power of sports to foster personal growth and well-being (Harwood et al., 2015).

Additionally, a study led by Mayank Sharma and Dr. Rahul Kanojiya delved into the intricate interplay of psychosocial variables impacting athlete performance during competitive events. The research, conducted in 2021, revealed intriguing findings regarding anxiety and aggression levels among volleyball players participating at both inter-university and national levels. Surprisingly, the study uncovered similarities in anxiety and aggression levels, challenging conventional assumptions about the potential escalation of these psychological factors at higher competitive tiers. This suggests that psychosocial factors play a complex role in shaping athletes' mental states across different competitive contexts, and the relationship between anxiety, aggression, and performance is multifaceted (Sharma & Kanojiya, 2021).

Trait anxiety, a construct reflecting an individual's inherent inclination towards anxiety across diverse situations, has emerged as a prominent factor influencing the association between competition anxiety and sports performance (Eysenck, 1992). Athletes exhibiting elevated trait anxiety levels are prone to experiencing heightened

anxiety during competitive scenarios, thereby increasing the likelihood of performance deterioration (Hanton et al., 2002).

Competition anxiety is a common psychological phenomenon experienced by athletes before and during competitive events. A study conducted by Jones and Swain (1992) examined the relationship between competition anxiety and sports performance in collegiate athletes. The results revealed a negative correlation between anxiety levels and performance, suggesting that higher levels of anxiety were associated with lower performance outcomes (Jones & Swain, 1992). Similar findings were reported by Hanton (2005), who found that increased anxiety levels were related to decreased performance in elite athletes across various sports (Hanton et al., 2005).

Gender differences in the relationship between competition anxiety, aggression, and sports performance have also been examined. A study by Woodman and Hardy (2001) investigated gender differences in anxiety and performance among athletes. The findings revealed that female athletes tended to report higher levels of anxiety compared to male athletes (Woodman & Hardy, 2001). Additionally, research by Kavussanu and McArdle (2006) explored gender differences in aggression and performance in basketball players. The results showed that males displayed higher levels of physical aggression, while females exhibited higher levels of verbal aggression. These gender differences highlight the importance of considering individual and contextual factors when examining the relationship

### **Theoretical Framework**

The Inverted-U hypothesis by Robert Yerkes and John Dodson (1908) suggests that there is an optimal level of arousal for athletes to perform their best, and too much or too little arousal can negatively impact performance. Competition anxiety and

aggression can both contribute to increased arousal levels, which can harm performance if arousal becomes too high. According to this theory, competition anxiety and aggression can be beneficial up to a certain point, beyond which they start to impair performance.

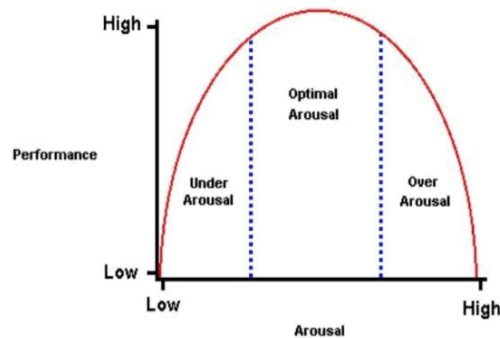
The inverted U hypothesis, also known as the Yerkes-Dodson law, proposes that there is an optimal level of arousal or stimulation for peak performance. In the context of competition anxiety, aggression, and performance among athletes, this hypothesis suggests that there is an ideal balance or midpoint at which these factors contribute to the best performance outcomes.

At the core of this framework is the notion of arousal levels along the X-axis, ranging from low to high. At low arousal levels, athletes might find themselves lacking the necessary stimulation and alertness required for optimal performance. This deficiency in arousal could result in reduced focus, motivation, and overall engagement during competition, leading to underperformance due to a lack of readiness.

Conversely, at high arousal levels, athletes may experience heightened anxiety and aggression, which can negatively impact decision-making, concentration, and focus. Beyond a certain point, excessive arousal can hinder an athlete's ability to execute skills effectively, resulting in performance decline. The optimal level of arousal lies in between these extremes, where athletes are optimally stimulated, motivated, and focused.

Performance levels, depicted along the Y-axis, correspond to the athlete's output in terms of skill execution and overall success in the competitive environment. At low performance levels, associated with low arousal, athletes may exhibit suboptimal performance due to a lack of necessary arousal. Conversely, optimal performance is

achieved when the athlete operates within the balanced arousal zone, where anxiety and aggression contribute positively to focus, motivation, and skill execution.



Examining competition anxiety within this framework reveals that low anxiety levels may lead to complacency, while excessive anxiety can result in heightened stress and impaired cognitive functioning. The optimal anxiety level aligns with the peak of the inverted U, where athletes experience an appropriate amount of anxiety to enhance their alertness, focus, and competitive drive.

Similarly, aggression is considered as a contributing factor to athlete performance. Low aggression may result in a lack of assertiveness and competitive drive, while excessive aggression can lead to undisciplined behavior. The optimal aggression level aligns with the peak of the inverted U, where athletes display a balanced and assertive approach, leveraging aggression in a controlled manner to enhance competitive drive and performance.

The inverted U hypothesis suggests that finding the right balance or optimal level of competition anxiety and aggression is crucial for maximizing performance. It emphasizes that too little or too much competition anxiety or aggression can lead to suboptimal performance outcomes.

## **Rationale**

The main purpose of the study was to investigate the relationship between competition anxiety and aggression on the sport performance of athletes. Moreover, to find out how psychological constructs such as competition anxiety and aggression influences the sport performance of athletes as a whole during performance. It is important for athletes to perform better, for this they must be psychologically stable. This study aimed to contribute to the existing literature by investigating these relationships in a new sample of athletes, different methods, and different variables in Pakistan, which can provide additional insights into these relationships.

## **Objectives**

The objectives of this study are:

1. To find out the relation of competition anxiety with aggression and sport performance of athletes.
2. To explore the relation between aggression and sport performance in athletes.
3. To explore gender differences in competition anxiety and aggression among athletes.

## **Hypotheses**

1. There will be a positive relationship between competition anxiety and aggression among athletes.

2. There will be a negative relationship between aggression and sport performance among athletes.
3. There will be a negative relationship between competition anxiety and sport performance among athletes.
4. There will be more competition anxiety among female athletes than male athletes.
5. There will be more aggression among male athletes than female athletes.

## Chapter 2

### Method

#### Research Design

A correlational research design was used in this study. It was a quantitative study that aimed to find out the relationship between competition anxiety, aggression, and sports performance among athletes.

#### Participants/sample

In this research, the sample consist of 250 participants (n=250) containing both genders from different sports clubs and universities of Islamabad and Rawalpindi. Participates who were involved in sports such as cricket, football, volleyball, etc. games.

#### Inclusion criteria

Following are the inclusion criteria:

- Males and females were included.
- Those who play sport were included.
- The age range of 18 to 27 years was included.
- Those who were actively involved in competitive sports
- Those who were willing to participate

#### Exclusion criteria

Following are the exclusion criteria:

- Those who were mentally and physically unstable.
- Professional's athletes.



- Those who were not willing to participate.

### **Sampling Procedures**

A purposive sampling approach was applied.

### **Research Instruments**

The following instruments were used for data collection:

*Sport Competition Anxiety Test (SCAT):* The Sport Competition Anxiety Test (SCAT) is a self-report questionnaire developed by Rainer Martens in 1977. It is widely used to assess competition anxiety in athletes. The SCAT consists of 15 items that measure an athlete's subjective experience of anxiety in competitive situations. The questionnaire utilizes a 3-point Likert scale (rarely, sometimes, often) for respondents to indicate the frequency of their feelings. The psychometric properties of the SCAT indicate high internal consistency, with reported Cronbach's Alpha coefficients ranging from 0.95 to 0.97. The test includes 10 items that measure symptoms associated with anxiety, while the remaining 5 items are considered spurious and not scored. The inclusion of these spurious items aims to reduce response bias and ensure more accurate results. To determine an athlete's level of competition anxiety, the scores of the 10 relevant items are summed up. Higher total scores indicate a greater tendency to experience competitive anxiety. Items 1, 4, 7, 10, and 13 are spurious and scored as 0, while the other 10 items contribute to the overall anxiety score. The total score can range from 10 to 30, with higher scores indicating higher levels of trait anxiety in a competitive context.

***Buss-Perry Aggression Questionnaire (BPAQ):*** The Buss and Perry Aggression Questionnaire (BPAQ) is a widely used psychological instrument designed to assess various dimensions of aggression in individuals. It was developed by Arnold H. Buss and Mark Perry in the late 20th century. The questionnaire is designed to measure different facets of aggression rather than providing a single overall aggression score. The BPAQ consists of 29 items, and respondents are required to indicate the extent to which each statement reflects their own behavior on a scale, typically ranging from 1 (extremely uncharacteristic of me) to 5 (extremely characteristic of me). The reliability coefficient is 0.93 and the BPAQ has been found to have strong construct validity, meaning that it effectively measures the intended constructs of physical aggression, verbal aggression, anger, and hostility.

The BPAQ categorizes aggression into four main subscales:

1. **Physical Aggression (PHYS):** This subscale assesses tendencies toward physically harming others.
2. **Verbal Aggression (VERB):** It measures the inclination to use words to express aggression, including insults, threats, and other verbal means.
3. **Anger (ANGR):** This subscale gauges the intensity and frequency of feelings of anger and the tendency to react with anger in various situations.
4. **Hostility (HOST):** Hostility is assessed through this subscale, which includes items related to suspicion, resentment, and a general negative attitude towards others.

***Athletics Subjective Performance Scale (ASPS):*** this scale was invented by Ohad Nahum in 2016. It measures the subjective performance of athletes. It contains 6-items scale. The scale identified three major aspects of sports performance; general

performance, team contribution, and personal ability. The scoring system of this questionnaire employs a 10-point Likert scale, where participants rate their satisfaction levels on a range from 1 (representing "not at all satisfied") to 10 (representing "completely satisfied"). The cumulative scores obtained from these ratings are utilized to determine the overall performance level. The scores obtained from the participants were aggregated to calculate the subjective performance. Cronbach's alpha is 0.97 and 0.96.

### **Procedures**

Before visiting any sports clubs or universities, permission was requested for data collection from the authorities. After receiving permission, the participants were approached from different sports clubs and universities. The purpose and information of the study was shared with them and was asked to sign informed consent which shows their approval and involvement. *The sport competition anxiety test (SCAT)*, *Buss-perry aggression questionnaire (BPAQ)* and *Athletics subjective performance scale (ASPS)* was used in this study. The researcher helped participants while having trouble when filling out surveys. The information gathered was kept anonymous and private.

### **Ethical Considerations**

When we conducted our study with athletes, we made sure to follow ethical guidelines to protect the rights, well-being, and dignity of the participants. A crucial aspect was obtaining informed consent from the athletes, ensuring they fully grasped the study's purpose, procedures, potential risks, benefits, and their rights as participants. We also prioritized confidentiality and anonymity to keep their privacy safe. Respecting athletes' autonomy was essential, allowing them the freedom to choose their level of

participation without any pressure. We treated all athletes fairly, with respect and without discrimination, promoting inclusivity and equal opportunities for participation.

Getting approval from an institutional review board and following their guidelines was a fundamental step in our research process. We implemented secure data storage and handling procedures to protect participants' sensitive information, adhering to data protection guidelines to prevent unauthorized access or breaches. Throughout the study, we prioritized participants' well-being, avoided plagiarism and misconduct, and provided truthful information about the study, ensuring transparency.

## Chapter 3

### Results

. The present study aimed to examine the relationship between competition anxiety, aggression and sport performance among athletes. Data analysis was carried out by using SPSS- version 26. The research project involved gathering information from a sample of 250 athletes from universities and sports club in Rawalpindi and Islamabad. The demographics characteristics were identified through frequencies and percentages. Descriptive statistics, including means and standard deviations, were calculated to provide an overview of the data and summarize the characteristics of the research participants.

To ensure the reliability of the measurement scales used to assess competition anxiety, aggression, and sport performance. The study conducted a reliability analysis, employing methods such as Cronbach's alpha. This analysis aimed to evaluate the internal consistency of the measurement instruments, confirming their reliability in measuring the targeted constructs.

In addition to descriptive statistics and reliability analysis, Spearman correlation coefficients were computed to investigate the relationships between Competition anxiety, aggression, and sport performance. This statistical method quantified the strength and direction of associations between variables, offering insights into potential connections among the study variables. Mann-Whitney U test is applied for gender.

By employing these analytical techniques, the study sought to provide a comprehensive understanding of the relationships between competition anxiety, aggression, and sport performance among athletes. The outcomes of the analysis are expected to contribute to existing knowledge on the topic and may have implications

for interventions and support strategies aimed at enhancing students' psychological well-being and addressing challenges they encounter during their academic journey.

### Demographic characteristics of athletes

**Table 1**

*Demographics characteristics of sample (N=250)*

<i>Demographic Characteristics</i>	<i>Categories</i>	<i>f</i>	<i>%</i>
Gender	Female	96	38.4
	Male	154	61.6
Age	18	16	6.4
	19	24	9.6
	20	45	18
	21	50	20
	22	51	20.4
	23	37	14.8
	24	17	6.8
	25	5	2
	26	3	1.2
	27	2	.8
Sport	Cricket	113	45.2
	Football	41	16.4
	Badminton	43	17.2
	Basketball	15	6

	Tennis	8	3.2
	Volleyball	3	1.2
	Table tennis	3	1.2
	Others	24	9.6
City			
	Islamabad	137	54.8
	Rawalpindi	113	45.2
Education			
	Intermediate	242	96.8
	Bachelors	8	3.2
Semester			
	1	36	14.4
	2	9	3.6
	3	43	17.2
	4	25	10
	5	29	11.6
	6	22	8.8
	7	58	23.2
	8	28	11.2
Marital status			
	Single	231	92.4
	Married	10	4
	Engaged	9	3.6
Time			
	1-5 years	106	42.4
	6-10 years	84	33.6
	11-15 years	36	14.4

16-20 years	23	9.2
21-25 years	1	.4

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*Note: f=frequency, %=percentage.*

Table 1 provides the frequency and percentages of demographics characteristics. Out of 250 participants, there are 96 (38.4%) females and 154 (61.6%) males. The participants aged 18 to 27, show highest representation in the 22 years age group (20.4%). The 21 years age category has substantial representation (20%), and the 20 years age group is significant (18%). In summary, participants are distributed across various age categories, with a concentration in the 22 years age group. Cricket is the most popular sport (45.2%), followed by badminton (17.2%) and football (16.4%). Basketball constitutes 6%, tennis 3.2%, while volleyball and table tennis each have 1.2%. Other unspecified sports make up 9.6% of the total sample. The table provides the frequency and percentage of participants from each city. For example, 137 participants (54.8%) are from Islamabad, while 113 participants (45.2%) are from Rawalpindi. The overwhelming majority of participants have an intermediate education level (96.8%), with a smaller percentage holding bachelor's degrees (3.2%). Semester 7 has the highest participation (23.2%), followed by Semester 3 (17.2%) and Semester 1 (14.4%). Semesters 5 and 8 account for 11.6% and 11.2%, respectively. Semesters 4 and 6 each have 10% and 8.8%, while Semester 2 has the smallest share at 3.6%. Regarding marital status, 92.4% of the respondents are single, 4% were married, and 3.6% were engaged. Regarding the time period, participants are categorized into five groups within the table: those involved in activities for 1-5 years amount to 105 individuals (42.4%), while those engaged for 6-10 years total 84 individuals (33.6%). Participants engaged for 11-15 years and The 16-20 years category amount to 36 and



23 individuals, making up (14.4%) and (9.2%) of the total sample. In the 21-25 years category, there is only 1 participant, accounting for (0.4%) of the total sample.

### **Psychometric properties of Sport Competition Anxiety Test, Buss and Perry Aggression Questionnaire and Athletes Subjective Performance**

**Table 2**

*Cronbach's alpha reliability of the Sport Competition Anxiety Test (SCAT), Buss and Perry Aggression Questionnaire (BPAQ) And Athlete Subjective Performance Scale (ASPS)*

<i>Scale</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Range</i>		<i>α</i>
				<i>Actual</i>	<i>Potential</i>	
SCAT	15	19.8	3.9	10-30	0-45	.68
BPAQ	29	84.3	15.7	43-124	29-145	.85
ASPS	6	41.0	9.8	14-60	6-60	.79

*Note: N=items of scale, α = alpha reliability, M = mean, SD = standard deviation, SCAT=, Sport Competition Anxiety Test, BPAQ= Buss and Perry Aggression Questionnaire, ASPS= Athlete Subjective Performance Scale*

Table 2 displays the reliability and descriptive statistics for three scales: SCAT (Sport Competition Anxiety Test), BPAQ (Buss and Perry Aggression Questionnaire), and ASPS (Athlete Subjective Performance Scale). The reliability of each scale is assessed using Cronbach's alpha ( $\alpha$ ). For SCAT (15 items), the alpha reliability is 0.68, indicating moderate internal consistency. The mean score (M) is 19.8, with a standard deviation (SD) of 3.9 and a range of 20. Moving to BPAQ (29 items), the alpha reliability is higher at 0.85, suggesting strong internal consistency. The mean score for BPAQ is 84.3, with a standard deviation of 15.7 and a broader range of 81. Lastly, ASPS (6 items) demonstrates an alpha reliability of 0.79, signifying good internal consistency.

The mean score for ASPS is 41.0, with a standard deviation of 9.8 and a range of 46. These reliability coefficients indicate that the measurement scales used to assess competition anxiety (SCAT), aggression (BPAQ), and subjective performance (ASPS) have acceptable to strong internal consistency, supporting their reliability in the study.

### **Reliability of subscales of Buss and Perry Aggression Questionnaire (BPAQ)**

**Table 3**

*Cronbach's Alpha reliability of the subscales of the buss and Perry aggression questionnaire (BPAQ)*

<i>Scale</i>	<i>Subscales</i>	<i>Items</i>	<i><math>\alpha</math></i>
BPAQ	Physical aggression	9	0.68
	Verbal aggression	5	0.69
	Anger	7	0.63
	Hostility	8	0.67

### **Descriptive analysis of Sport Competitions Anxiety Test, Buss and Perry Aggression Questionnaire and Athletes Subjective Performance Scale**

**Table 4**

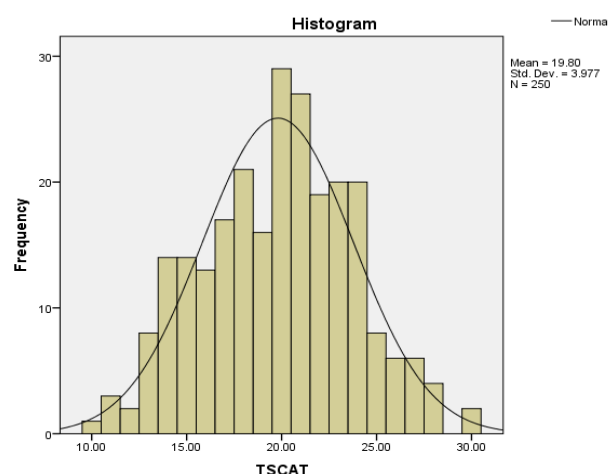
*Mean Median, Mode, Standard deviation, skewness, Kurtosis, and Kolmogorov-Smirnov test statistics of the Sport Competition Anxiety Test (SCAT), Buss and Perry Aggression Questionnaire (BPAQ) And Athlete Subjective Performance Scale (ASPS)*

<i>Variables</i>	<i>M</i>	<i>Median</i>	<i>Mode</i>	<i>SD</i>	<i>Skew</i>	<i>Kurt</i>	<i>K-S</i>	<i>p</i>
SCAT	19.8	20	20	3.97	-.031	-.43	.084	.000
BPAQ	84.3	84	77 <sup>a</sup>	15.76	.138	-.312	.052	.097
ASPS	41	42	46	9.82	-.386	-.358	.078	.001

*Note: M= Mean, SD= Standard Deviation, skew=skewness, Kurt=kurtosis, K-S= Kolmogorov-Smirnov, p= K-S significance value, SCAT=, Sport Competition Anxiety Test, BPAQ= Buss and Perry Aggression Questionnaire, ASPSP= Athlete Subjective Performance Scale*

In table 4, the sport competition anxiety scale (SCAT) shows mean value 19.8, with a median of 20 and mode of 20, suggesting a relatively symmetric distribution. The standard deviation (SD) is 3.97, indicating some variability in the scores. The negative skewness (-.031) suggests a slight leftward skew, and the kurtosis is -.43, implying a distribution with lighter tails compared to a normal distribution. The K-S test has a significance value (p) of .000, indicating a non-normal distribution of data. Therefore, the distribution of SCAT scores is non-normal.

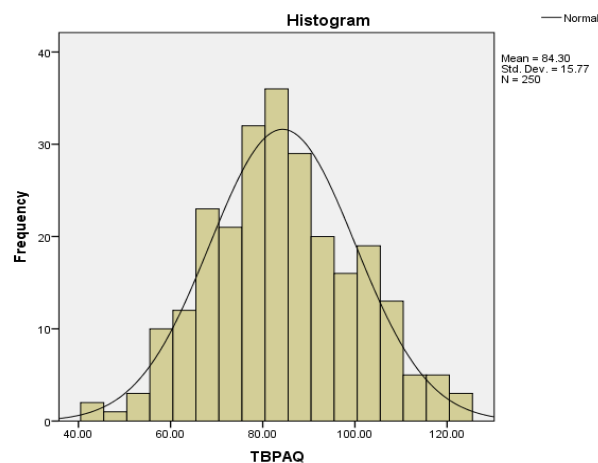
**Figure 1** Distribution across the scores of scales “Sport Competition Anxiety Test”



The figure shows non normal distribution of data.

Buss and Perry aggression questionnaire (BPAQ) had mean value 84.3, with a median of 84 and mode at 77. The standard deviation (SD) is 15.76, indicating moderate variability. The positive skewness (0.138) suggests a slight rightward skew, and the kurtosis is  $-0.312$ , indicating a distribution with slightly lighter tails than a normal distribution. The K-S test has a significance value ( $p$ ) of  $.097$ , suggesting that the BPAQ scores do not significantly deviate from normality. The distribution of BPAQ scores is normal.

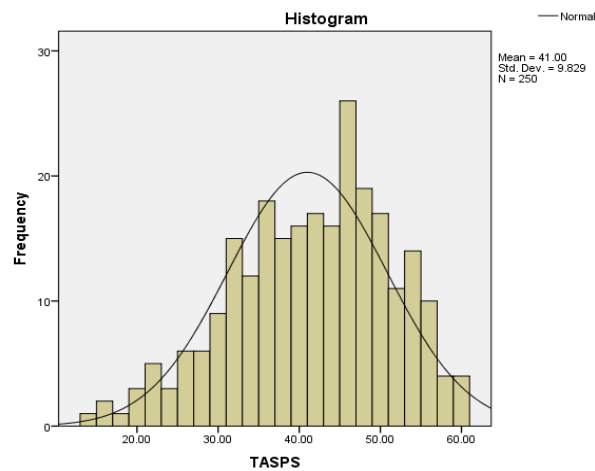
**Figure 2** Distribution across the scores of scales “Buss and Perry Aggression Questionnaire”



The figure shows normal distribution of data.

Athlete subjective performance scale (ASPS) had mean value 41, with a median of 42 and mode of 46. The standard deviation (SD) is 9.82, indicating moderate variability. The negative skewness ( $-0.386$ ) suggests a leftward skew, and the kurtosis is  $-0.358$ , indicating a distribution with slightly lighter tails than a normal distribution. The K-S test has a significance value ( $p$ ) of  $.001$ , indicating a non-normality of data. Therefore, the distribution of ASPS scores is non-normal.

**Figure 3** Distribution across the scores of scales “Athlete Subjective Performance Scale”



The figure shows non normal distribution of data

### Gender differences in Competition Anxiety, Aggression and Sports Performance

**Table 5**

*Mann-Whitney U- Test values for scales in both genders of athletes*

<i>Variables</i>	<i>Female</i>		<i>Male</i>		<i>U</i>	<i>p</i>
	<i>N</i>	<i>M</i>	<i>N</i>	<i>M</i>		
SCAT	96	158.01	154	105.23	4271.0	.000
BPAQ	96	115.82	154	131.53	6463.0	.095
ASPS	96	130.08	154	122.64	6952.0	.429

*Note: N= Number of participants, M=mean rank, U=Mann-Whitney-u, p=Significant value of U, SCAT=, Sport Competition Anxiety Test, BPAQ= Buss and Perry Aggression Questionnaire, ASPSP= Athlete Subjective Performance Scale*

In table 5, The Mann-Whitney U-Test was employed to analyze potential gender differences in three key variables: SCAT (Sport Competition Anxiety Test), BPAQ (Buss and Perry Aggression Questionnaire), and ASPSP (Athlete Subjective

Performance Scale) within the study focused on the interplay between competition anxiety, aggression, and sport performance among athletes. In the case of competition anxiety (SCAT), there was a significant difference between male and female athletes ( $U = 4271.0$ ,  $p = .000$ ) and  $p$ -value is less than 0.05. The mean rank for females was notably higher (158.01) than for males (105.23), signifying that female athletes experienced higher levels of competition anxiety compared to their male counterparts. However, concerning aggression (BPAQ), there was a significant difference between male and female athletes ( $U = 6463.0$ ,  $p = .095$ ). The mean rank for females (115.82) and males (131.53) suggested that male athletes experienced higher levels of aggression compared to female athletes. Similarly, subjective performance (ASPS) also revealed significant difference between both genders ( $U = 6952.0$ ,  $p = .429$ ). The mean rank for females (130.08) and males (122.64) indicated that subjective performance is shown more in female athletes than in male athletes.

### **Relationship between Completion Anxiety, Aggression and Sports Performance**

**Table 6**

*Spearman Correlational analysis for scales (N=250).*

<i>Variables</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SCAT</i>	<i>BPAQ</i>	<i>ASPS</i>
SCAT	250	19.8	3.97	-	.093	-.182**
BPAQ	250	84.3	15.76		-	.023
ASPS	250	41	9.82			-

*Note: SCAT=, Sport Competition Anxiety Test, BPAQ= Buss and Perry Aggression Questionnaire,*

*ASPS= Athlete Subjective Performance Scale, M=Mean, SD= Standard deviation*

Table 6 indicates the correlation coefficient between SCAT and BPAQ is .093, indicating a very weak positive relationship. However, the p-value is not significant ( $> .05$ ), suggesting that this relationship is not statistically significant. Therefore, there is insufficient evidence to support the hypothesis of a positive relationship between competition anxiety and aggression among athletes. The correlation coefficient between BPAQ and ASPS is .023, suggesting a very weak positive relationship. The p-value is not significant, indicating that this relationship is not statistically significant. Consequently, there is insufficient evidence to support the hypothesis of a negative relationship between aggression and sport performance among athletes. The correlation coefficient between SCAT (competition anxiety) and ASPS (sport performance) is reported as  $-0.182^{**}$ , and it is statistically significant at the  $p < 0.01$  level (indicated by "\*\*\*"). This significant negative correlation supports the hypothesis and suggests that there is a modest negative relationship between competition anxiety and sport performance among athletes. In other words, higher levels of competition anxiety are associated with lower subjective sport performance ratings.

## Chapter 4

### Discussion

The present study aims to explore relationship between Competition Anxiety, Aggression and Sports Performance among Athletes. The insights gained from the data presented in Tables 1 to 6 offer valuable information related to the research objectives and hypotheses.

#### **Relationship between Competition Anxiety and Aggression**

Objective 1 and hypothesis 1 aimed to find out the positive relationship between competition anxiety and aggression among athletes. Table 5 findings suggest a weak positive relationship between competition anxiety and aggression among athletes. The correlation coefficient between SCAT and BPAQ found .093 that indicates weak positive relationship between competition anxiety and aggression. This result supported the previous researches that found a positive correlation between levels of anxiety and aggressiveness in athletes who participate in combat sports. This suggests that athletes who experience higher levels of anxiety may be more likely to exhibit aggressive behavior in competitive situations. This relationship may be explained by the fact that anxiety can lead to feelings of frustration and anger, which can then be expressed through aggressive behavior. The findings of my study revealed a weak connection between competition anxiety and aggression, and this relationship is affected by cultural differences, individual dissimilarities among athletes, and the specific sports environment in Pakistan. It's crucial to understand that not every athlete facing competition anxiety will display aggressive behavior. The link between these two factors is intricate and influenced by various individual and situational elements. For instance, some athletes might redirect their anxiety into heightened motivation and



concentration instead of turning to aggression. Factors like cultural distinctions play a significant role in how anxiety and aggression are expressed. Different cultures have varying norms and expectations related to competitive behavior and emotional expression, impacting the link between anxiety and aggression. In the case of Pakistan, the cultural context may contribute to a unique strength in the relationship between these variables. Additionally, individual differences, like personal coping strategies, emotional regulation skills, and past experiences among athletes, can also impact how anxiety and aggression are related. These individual differences may differ across diverse populations and contribute to the observed variations in the connection between anxiety and aggression (Tiric-Campara et al., 2012).

There is a positive relationship between aggression and anxiety in Brazilian Jujitsu athletes. Specifically, the results showed that athletes who used more behaviors aimed at constraining and intimidating opponents tended to have higher levels of trait anxiety. This suggests that anxiety may lead athletes to use aggressive behaviors as a way of compensating for their preoccupation in competitive situations. Research has shown that individuals with high levels of trait anxiety are more likely to engage in aggressive behaviors when they perceive a threat. Additionally, anxiety has been found to mediate the relationship between cognitive errors and relational aggression in athletes (Bartholomeu et al., 2015).

The positive correlation between competition anxiety and aggression among male karate athletes has various positive aspects. Firstly, having a moderate level of anxiety triggers a response that boosts adrenaline and preparedness, leading to controlled aggression and improved performance. Secondly, anxiety acts as a driving force for competition, turning into assertive actions and determination, which contributes to dominance and better results. Thirdly, this connection provides a strategic

advantage, allowing athletes to assert themselves effectively, seize opportunities, and gain a competitive edge. Additionally, competition anxiety serves as motivation, enhancing focus and determination for improved performance. Lastly, in the context of karate, the link between anxiety and aggression is seen as an adaptive response, turning anxiety into controlled aggression, helping athletes excel under high-pressure situations (Purba & Situmeang, 2019).

Gumusdag suggest that there is a positive relationship between certain types of aggression and anxiety levels. Specifically, the study revealed that hostile aggression was associated with self-confidence, somatic anxiety, and trait anxiety, while passive aggression was positively predicted by somatic anxiety, self-confidence, and cognitive anxiety. Additionally, somatic anxiety, self-confidence, trait anxiety, and cognitive anxiety were significant predictors of assertiveness. (Gumusdag, 2013).

The reason behind moderate internal consistency 0.68 cronbach's alpha of sport competition anxiety test is diversity in responses among the participants, leading to less consistency in their answers. This could be due to cultural, individual, or situational differences in how athletes perceive and respond to competition anxiety. The sample of athletes taking the test may be heterogeneous, meaning they vary significantly in their characteristics or experiences. Heterogeneity can contribute to lower internal consistency (Anicich et al., 2021).

### **Relationship between Aggression and Sport Performances**

Objective 2 and hypothesis 2 aimed to find out the negative relationship between aggression and sports performance among athletes. But Table 5 showcases the positive relationship between aggression and performance among athletes. The

correlation coefficient between BPAQ and ASPS is .023, suggesting a very weak positive relationship.

Previous studies found a positive relationship between aggression and the performance of female handball players of Sargodha. The results of the study showed that there was a significant correlation between aggression and the overall performance of the handball players. The study also revealed that effective reinforcement and winning the match had a positive impact on the overall performance of the participating female handball players. These findings suggest that a certain level of aggression can be beneficial for athletes in terms of enhancing their performance and achieving success in their sport. The reason for the positive link between aggression and performance in Pakistan, as found in the current study, can be explained by cultural and social factors. In Pakistan, sports hold significant value, and athletes are viewed as national heroes. Winning in sports is a matter of pride for the athletes, their teams, and the country. This cultural emphasis on sports success may make athletes more willing to use aggressive behavior to secure victory. Firstly, the cultural importance of winning is highlighted, making athletes more inclined to be aggressive to achieve success. Secondly, the study discovered that winning and positive reinforcement had a beneficial impact on the overall performance. This suggests that the positive connection between aggression and performance could be because aggression acts as a motivating factor, increasing arousal levels and driving athletes to perform at a higher level, ultimately improving their overall performance (Kousar et al., 2022).

Aggression in sports is often viewed as a negative behavior; there is evidence to suggest that there is a positive relationship between aggression and performance. This relationship is complex and depends on several factors, including the type of sport, the level of competition, and the individual athlete's personality and motivation. In

some sports, such as combat sports or contact sports like football or hockey, aggression can be a necessary component of success. Athletes who are more aggressive may be more likely to win physical battles for the ball or puck, or to intimidate their opponents. In these sports, aggression can be seen as a positive attribute that can lead to better performance. (Krishnaveni & Shahin, 2014). The positive correlation between aggression and performance in sports is a complex and multifaceted topic. While aggression is often associated with negative connotations, it can also have a positive impact on athletic performance under certain circumstances. In the context of sports, aggression can be channeled into a competitive drive, determination, and assertiveness, which may enhance an athlete's performance. When utilized effectively, aggression can fuel an athlete's motivation, focus, and intensity, leading to improved physical and mental output during competitions (Bali, 2015).

While aggression is often viewed as a negative trait in sports, there is evidence to suggest that it can have a positive impact on performance in certain situations. For example, in contact sports like football or hockey, aggression can help players out-physical their opponents and generate enthusiasm from the crowd. Additionally, a moderate level of aggression can create anxiety in the minds of opponents, potentially giving the aggressive athlete a psychological advantage. However, it is important to note that this positive relationship between aggression and performance is not always the case. Excessive aggression can lead to penalties, ejections, and even injuries, which can ultimately harm the athlete's performance and the team's success. Furthermore, aggression can be a manifestation of frustration or anger, which can distract athletes from their goals and negatively impact their performance. The positive connection between aggression and performance in Pakistan's sports scene can be explained by the cultural and competitive environment. In Pakistan, sports like cricket, field hockey, and

squash are hugely popular, creating a cultural focus on qualities like assertiveness, physicality, and a strong competitive spirit in sports. This emphasis may lead to the belief that a certain level of aggression can enhance sports performance. Additionally, the competitive nature of sports in Pakistan, coupled with the drive for excellence, motivates athletes to express their aggression in ways seen as beneficial for their performance. Athletes may perceive assertive and aggressive behaviors as a way to gain a competitive advantage on the field or court, aligning with the cultural values and the pursuit of success in sports (Iftikhar et al., 2021).

### **Relationship between Competition Anxiety and Sports Performance**

Objective 1 and hypothesis 3 aimed to find out the negative relationship between competition anxiety and sports performance among athletes. Table 5 presents the correlation coefficient between SCAT (competition anxiety) and ASPS (sport performance) is reported as  $-0.182^{**}$ , and it is statistically significant at the  $p < 0.01$  level (indicated by "\*\*\*"). This result supported by previous studies that demonstrated a negative correlation between sports anxiety and sports performance. The findings suggest that heightened levels of sports anxiety are associated with decreased sports performance, as athletes may experience disrupted attention, reduced focus, and impaired execution of skills when experiencing anxiety. This negative impact on performance underscores the significance of addressing anxiety in sports settings (Bukhari et al., 2021). The study discusses the negative relationship between competition anxiety and sports performance, highlighting the impact of cognitive anxiety on athletes. It is noted that studies consistently demonstrate a negative linear relationship between the cognitive element of competitive anxiety and performance, indicating that heightened anxiety is likely to lead to deteriorating performance (Palazzolo, 2020).

The negative relationship between competition anxiety and performance has been a subject of interest in sports psychology. Several studies have demonstrated that pre-competitive anxiety can lead to detrimental effects on athletic performance. Athletes with high levels of trait anxiety are more likely to experience elevated state anxiety in competitive situations, which can result in underperformance. It was found that pre-competitive state anxiety negatively influenced the players' performance. The findings suggest that higher levels of anxiety were associated with decreased efficacy in basketball performance. This aligns with the broader literature on the impact of anxiety on athletic performance, indicating that heightened anxiety levels can lead to impaired focus, attentional control, and decision-making, all of which are crucial for optimal performance in sports (Abenza et al., 2009).

### **Gender differences in Competition Anxiety and Aggression**

The focus of objective 3 and hypotheses 4, 5 is to explore gender differences in competition anxiety, aggression sports performance between male and female athletes. Results from Table 6 showcase that there is a significant difference between males and females regarding competition anxiety, aggression and sports performance among athletes. These results align with previous researches. The previous study's findings indicated that male players exhibited notably higher levels of aggression compared to female players, whereas female players demonstrated significantly greater levels of anxiety than their male counterparts (Thakur, 2016). These gender disparities in sports anxiety and performance align with previous literature that revealed female players exhibited higher levels of sports anxiety compared to male players. Additionally, the study indicated that female athletes had higher subjective performance levels than their male counterparts in Bahawalpur and Multan cities of Punjab Province (Bukhari et al., 2021). The results of the present study also supported by previous study found a

significant difference in sports competitive anxiety between male and female sportspersons participating in state-level tournaments. The results indicated that female sportspersons exhibited higher levels of sports competitive anxiety compared to their male counterparts. On the other hand, male sportspersons displayed lower levels of sports competition anxiety in the study (Kumar & Dhapola, 2004). The results of the previous study indicate a significant difference in aggression levels between male and female athletes. Specifically, male athletes demonstrated higher levels of aggression compared to their female counterparts (Ullah & Iftikhar, 2021).

## **Conclusion**

In conclusion, this study investigated relationship between competition anxiety, aggression, and sports performance among athletes. The results showed clear differences between male and female athletes. Male athletes tended to display more aggression, while female athletes experienced higher levels of anxiety and subjective performance. The findings also indicated a weak positive relationship between competition anxiety and aggression, meaning that as anxiety levels increases, so does aggression. However, this correlation was not statistically significant. Additionally, there was positive relationship in sports performance based on aggression levels. This suggests that increased aggression level leads to improved performance. On the other hand, there was a negative and significant correlation between competition anxiety and sports performance, indicating that higher anxiety levels are associated with lower performance. These findings enhance our understanding of the complex dynamics among competition anxiety, aggression, and sports performance in athletes.



## Limitations

When exploring the relationship between competition anxiety, aggression, and performance among athletes, there are several limitations to consider.

1. The study's focus on a specific sport, such as cricket or football, may limit the generalizability of the findings to other sports or athletic contexts.
2. The study's reliance on samples from a particular city or region may introduce geographical bias, potentially limiting the applicability of the results to athletes from different locations.
3. Individual differences, such as personality traits and previous experiences, can influence competition anxiety, aggression, and performance, thereby impacting the generalizability of the findings to an athlete population.
4. Focusing on a specific age group of athletes may overlook the developmental aspects of competition anxiety and aggression. Younger and older athletes may respond differently to competitive stressors, and their coping mechanisms and performance outcomes may vary.
5. A study with a short duration may capture only a snapshot of the relationship between competition anxiety, aggression, and performance. Longitudinal studies that track athletes over an extended period would provide a more comprehensive understanding of how these factors evolve over time.
6. The study focuses on athletes in Pakistan, and cultural factors can significantly influence psychological variables. The results may not be universally applicable, and caution should be taken when extending conclusions to athletes from different cultural backgrounds.
7. The study focused primarily on anxiety and aggression, neglecting other potentially influential psychological factors, such as motivation, self-efficacy,

and resilience. A more comprehensive examination of the psychological landscape could offer a holistic perspective on athletes' experiences.

8. Future studies could analyze deeper into the influence of other demographic factors such as age, education, and years of engagement in sports.

## **Recommendations\implications**

The study on the competition anxiety, aggression and sports performance among athletes have several implications for future and practical application:

1. The study underscores the need for coaches and trainers in university and sports academy to be acutely aware of the psychological impact on athletes, emphasizing proactive measures. Integrating stress management, coping strategies, and psychosocial support into training programs can mitigate anxiety and aggression, promoting overall athlete well-being and optimal performance.
2. The study's findings could inform the development of tailored psychological support programs for athletes, considering the specific nuances of gender differences in anxiety, aggression, and performance. Psychologists and coaches can use this information to design interventions that cater to the unique needs of male and female athletes.
3. The study recommends that conflicts among athletes should be resolved immediately to prevent the escalation of aggressive behavior. Coaches and trainers should be trained in conflict resolution techniques to help them manage conflicts effectively and promote a positive team environment.
4. The findings of the study can be used to inform policy and decision-making in sports organizations. Sports organizations can use the findings to develop policies and programs that support the mental health and well-being of athletes.
5. The study underscores the importance of athlete-centered support systems that recognize and accommodate individual differences. Sports organizations can use this knowledge to create environments that prioritize athletes' mental health, providing resources and support networks tailored to their unique psychological needs.



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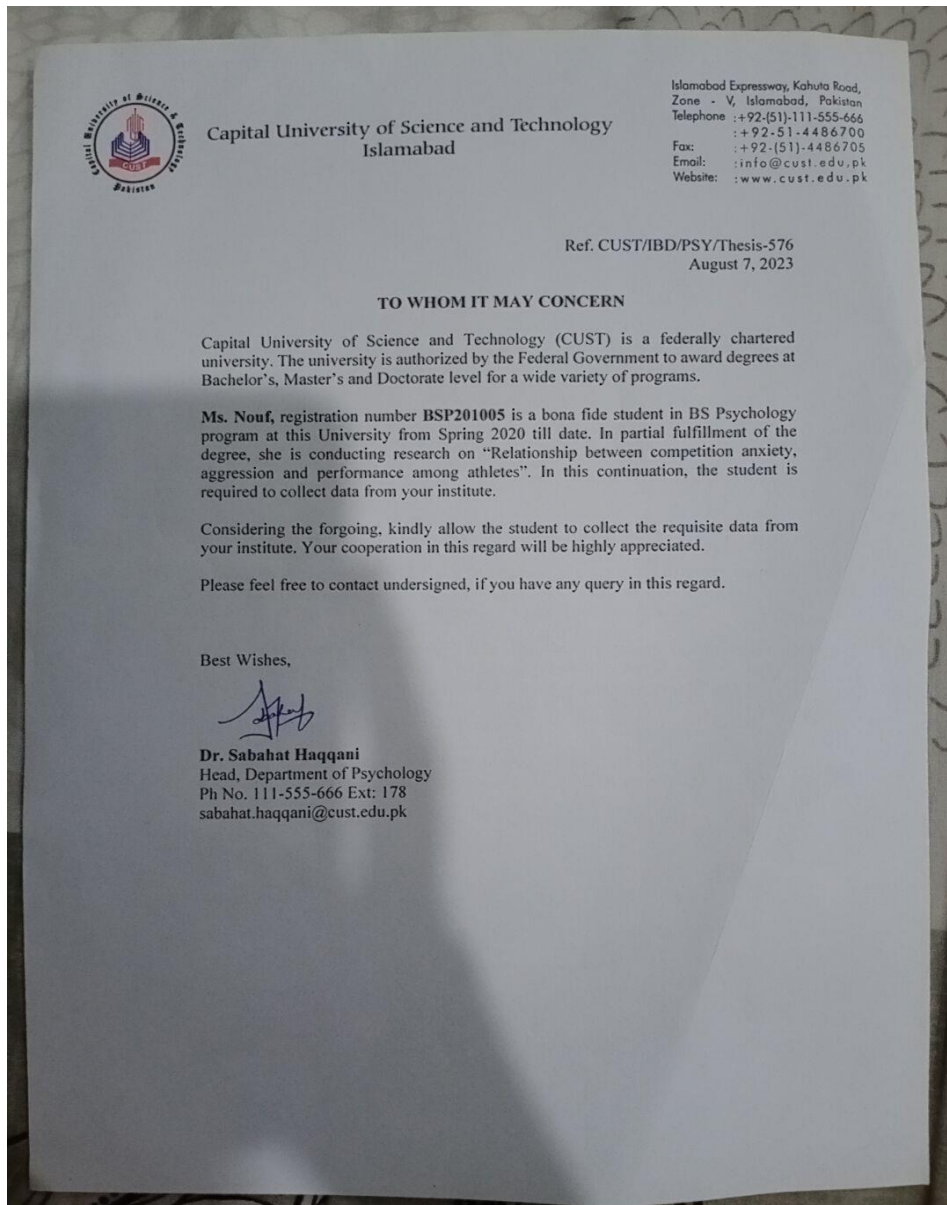
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## Appendices

### Appendix A

#### Support letter



**Appendix B****Demographic sheet**

Age

18  19  20  21  22  23  24  25  26   
27

Gender

Female  Male

What sport do you play? \_\_\_\_\_

City

Islamabad  Rawalpindi

Highest level of education you have? \_\_\_\_\_

Which semester are you in? \_\_\_\_\_

What is your marital status? \_\_\_\_\_

How long have you played sport for? \_\_\_\_\_

**Appendix C****Inform consent**

Dear participant,

I am Nouf enrolled in BS Psychology in Capital University of Science and Technology. I invite you to participate in a research study investigating the relationship between competition anxiety, aggression, and sports performance among athletes. The purpose of this study is to gain insights into how these psychological factors may influence sports performance. We kindly request your voluntary participation.

If you agree to participate, you will be asked to complete a set of questionnaires that assess competition anxiety, aggression, and sports performance. The questionnaires will inquire about your subjective experiences, thoughts, and behaviors in competitive sports settings. Your individual responses will remain confidential and anonymous. Only the researchers involved in the study will have access to the data. However, it would be really appreciated if you took part in this and provided your sincere responses.

Signature of participant \_\_\_\_\_

Date \_\_\_\_\_



## Appendix D

### Sport Competition Anxiety Test

Read each statement below, decide if you "Rarely", "Sometimes" or "Often" feel this way when competing in your sport, and tick the appropriate box to indicate your response.

- |  |                            |
|--|----------------------------|
| 1. Competing against others is socially enjoyable                    | Rarely / Sometimes / Often |
| 2. Before I compete I feel uneasy                                    | Rarely / Sometimes / Often |
| 3. Before I compete I worry about not performing Well                | Rarely / Sometimes / Often |
| 4. I am a good sportsman when I compete                              | Rarely / Sometimes / Often |
| 5. When I compete, I worry about making mistakes                     | Rarely / Sometimes / Often |
| 6. Before I compete I am calm  | Rarely / Sometimes / Often |
| 7. Setting a goal is important when competing                        | Rarely / Sometimes / Often |
| 8. Before I compete I get a queasy feeling in my stomach             | Rarely / Sometimes / Often |
| 9. Just before competing, I notice my heart beats faster than usual  | Rarely / Sometimes / Often |
| 10. I like to compete in games that demands a lot of physical energy | Rarely / Sometimes / Often |
| 11. Before I compete I feel relaxed                                  | Rarely / Sometimes / Often |
| 12. Before I compete I am nervous                                    | Rarely / Sometimes / Often |
| 13. Team sports are more exciting than individual sports             | Rarely / Sometimes / Often |
| 14. I get nervous wanting to start the game                          | Rarely / Sometimes / Often |
| 15. Before I compete I usually get uptight                           | Rarely / Sometimes / Often |

## Appendix E

## Buss and Perry aggression questionnaire

Please rate each of the following items in terms of how characteristic they are of you.

		Extremely uncharacteristic	Somewhat uncharacteristic	Neither uncharacteristic nor characteristic	Somewhat characteristic	Extremely characteristic
1	Once in a while I can't control the urge to strike another person.					
2	Given enough provocation, I may hit another person					
3	If somebody hits me, I hit back.					
4	I get into fights a little more than the average person.					
5	If I have to resort to violence to protect my rights, I will.					
6	There are people who pushed me so far that we came to blows.					

7	I can think of no good reason for ever hitting a person (R).					
8	I have threatened people I know.					
9	I have become so mad that I have broken things.					
10	I tell my friends openly when I disagree with them.					
11	I often find myself disagreeing with people.					
12	When people annoy me, I may tell them what I think of them.					
13	I can't help getting into arguments when people disagree with me					
14	My friends say that I'm somewhat argumentative.					
15	I flare up quickly but get over it quickly					

16	When frustrated, I let my irritation show					
17	I sometimes feel like a powder keg ready to explode.					
18	I am an even-tempered person (R).					
19	Some of my friends think I'm a hothead.					
20	Sometimes I fly off the handle for no good reason.					
21	I have trouble controlling my temper					
22	I am sometimes eaten up with jealousy					
23	At times I feel I have gotten a raw deal out of life.					
24	Other people always seem to get the breaks.					
25	I wonder why sometimes I feel so bitter about things					
26	I know that "friends" talk about me					

	behind my back.					
27	I am suspicious of overly friendly strangers					
28	I sometimes feel that people are laughing at me behind me back.					
29	When people are especially nice, I wonder what they want.					

## Appendix F

## Athletes Subjective Performance Scale

Please rate your performance during the past week according to your own opinion.  
Use the scale between 1-10: 1="not at all satisfied", 10="fully satisfied":

- |   | fully<br>satisfied   | Not at all<br>satisfied |
|---|----------------------|-------------------------|
| 1. Overall – to what extent are you satisfied<br>with your sporting performance this week                   | 1 2 3 4 5 6 7 8 9 10 |                         |
| 2. To what extent did you contribute to the<br>success of the team this week                                | 1 2 3 4 5 6 7 8 9 10 |                         |
| 3. To what extent were your capabilities truly<br>reflected this week                                       | 1 2 3 4 5 6 7 8 9 10 |                         |
| 4. To what extent did you contribute to<br>Improving the performance of the players<br>around you this week | 1 2 3 4 5 6 7 8 9 10 |                         |
| 5. To what extent are you satisfied with your<br>functioning during the challenging moments<br>this week    | 1 2 3 4 5 6 7 8 9 10 |                         |
| 6. To what extent do you think the coach was<br>satisfied with your performance this week                   | 1 2 3 4 5 6 7 8 9 10 |                         |



**Noufi Khan** <noufikhan35@gmail.com>

to me ▾

Respected sir,

I am writing this email to you to seek permission to use your sports competition anxiety scale questionnaire for my research for my academic requirements at the university. I am a student at the capital university of Science and Technology and it's my research on competition anxiety, aggression, and sports performance among athletes. I will make sure that I will not misuse it. I am hopeful that you will allow me to use your instrumental questionnaire scale for my research.

Thank you



**Rainer Marten**

to Noufi ▾

Hello,

I grant you to use the sport competition anxiety test in your study.

Good luck,

Rainer

for permission to use questionnaire Inbox x



**Noufi Khan** <noufikhan35@gmail.com>

to ohadnahum ▾

Respected author,

I am writing this email to you to seek permission to use your questionnaire for my research which is a compulsory part of my thesis. I am a student at the capital university of Science and Technology and it's my final year of Bs psychology. I am doing research on competition anxiety, aggression, and sports performance among athletes. For my research, I need your permission to use your Athletes' Subjective Questionnaire. Please give me permission to use your questionnaire in my research. I will make sure that I will not misuse it. I am hopeful that you will allow me to use your instrumental questionnaire scale for my research.

Thank you



**Ohad Nahum** <ohadnahum@gmail.com>

to me ▾

Hello,

The permission is granted on the ASPS website. Good luck with your work and if you translate it to Hebrew, please let me know.

Best,

Ohad

