**EXPLORING COPING MECHANISMS IN MANAGING COMPETITIVE STATE ANXIETY AMONG SELECTED COMBAT SPORTS ATHLETES IN SRI LANKA**



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**Belihuloya**

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**By**

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# DECLARATION

The work described in this thesis was practically carried out by me, under the supervision of Mr.WMVD Chathuranga, Lecturer (Probationary), Department of Sports Sciences and Physical Education, Faculty of Applied Sciences, Sabaragamuwa University of Sri Lanka. This dissertation does not incorporate any research previously submitted for a degree or diploma in any other university. To the best of my knowledge and belief, this dissertation does not contain any research previously published in writing or orally communicated by another person. Also, due references are made to the relevant work where appropriate.

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# CERTIFICATE OF APPROVAL

We now declare this thesis from the student's work and effort, and all other sources of information used have been acknowledged. This thesis has been submitted with our approval.

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**Dedication**

***To my research supervisor,***

***Co – supervisor,***

***my family members and all resource persons to the research***

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# ABSTRACT

**EXPLORING COPING MECHANISMS IN MANAGING COMPETITIVE**

**STATE ANXIETY AMONG SELECTED COMBAT SPORTS ATHLETES IN SRI LANKA**

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Combat sports athletes face unique psychological challenges, including increased cognitive and somatic anxiety and fluctuations in self-confidence. There is limited research exploring how specific personality traits influence the experience of Competitive State Anxiety (CSA) and the effectiveness of coping strategies. This study aimed to explore how national-level female combat sports athletes manage CSA through coping mechanisms linked to their individual personality traits. A mixed-method approach was employed, involving (n=40) athletes from four combat sports: karate, taekwondo, wrestling, and judo. Participants first completed quantitative assessments based on the big five personality traits test and CSA questionnaire to assess their personality profiles and types of CSA. Based on these results, (n=10) athletes with elevated anxiety levels and distinct personality traits were selected for in-depth semi-structured interviews to explore their coping mechanisms and experiences. The findings were categorized into three key coping mechanisms for managing CSA: problem-focused, emotion-focused, and avoidance focused mechanisms. The choice of coping strategies varied according to personality traits. Neurotic athletes, who tend to experience somatic anxiety, employed self-talk, relaxation techniques, mindfulness, and superstition. Conscientious athletes managed cognitive anxiety through structured approaches such as journaling, planning, and mental rehearsal. Extraverted athletes relied on social coping strategies, including support from peers and mentors to manage cognitive anxiety. Agreeable athletes focused on collaboration, emotional expression, and team cohesion to handle somatic anxiety. Openness athletes adopted innovative strategies such as visualization, creative expression, and exploring diverse training methods to manage somatic anxiety. The results revealed athletes adopt different coping strategies depending on their personality profiles, and that specific mechanisms are more effective in managing cognitive or somatic anxiety. This underscores the importance of individualized psychological support in combat sports.

**Keywords**: Avoidance-focused, Emotional-focused, Problem-focused, Personality traits

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#### ABBREVIATIONS

CSA – Competitive State Anxiety

CIIS – Coping Inventory for Stressful Situation

CSAI-2 – Competitive State Anxiety Inventory-2

SPSS – Statistical Package for Social Sciences

MAT – Multidimensional Anxiety Theory

FFM –Five Factor Model

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# CHAPTER Ⅰ

# INTRODUCTION

## 1.1. Introduction

The role of competitive state anxiety (CSA) and coping mechanisms has gained significant attention due to their impact on athletic performance. Anxiety is a common psychological factor that can either enhance or impair an athlete's ability to perform under pressure (Craft et al., 2003). Among athletes, those in combat sports experience heightened levels of competitive anxiety due to the one-on-one nature of competition, intense physical demands, and psychological pressure (Robazza et al., 2006). The way athletes cope with this anxiety varies significantly based on their personality traits, which influence their anxiety response and coping strategies (Kaiseler et al., 2012).

Personality plays a crucial role in determining how athletes manage performance related anxiety. The big five personality traits openness, conscientiousness, extraversion, agreeableness, and neuroticism have been linked to different coping mechanisms in sports settings (Robert R. et al., 1999). For example, athletes high in neuroticism tend to experience higher levels of anxiety and often use emotion focused coping mechanisms, such as avoidance or self-blame, which may be less effective in high pressure situations (Allen et al., 2013). On the other hand, athletes high in conscientiousness or extraversion are more likely to employ problem focused coping, such as planning and seeking social support, which helps them manage stress more effectively (Kaiseler et al., 2009).

In combat sports, exploring coping mechanisms in managing CSA based on personality traits is particularly critical due to the unpredictable and physically intense nature of sports (Radochoński et al., 2011). A deeper understanding of how different personality types cope with CSA can provide valuable insights for how to manage CSA in under pressure, athlete training, psychological interventions, and performance enhancement strategies. This study aims to explore coping mechanisms in managing CSA among selected combat sports athletes in Sri Lanka, addressing a gap in existing research and contributing to the growing body of literature on sports psychology and athlete mental resilience.

In competitive sports, psychological factors are increasingly recognized as crucial determinants of athletic success. Among these, CSA and coping mechanisms play a significant role in shaping an athlete’s ability to perform under pressure. CSA refers to the situational and temporary anxiety experienced before or during competition, which can either facilitate or hinder performance depending on how athletes manage it (Craft et al., 2003). The ability to cope with competitive stress is influenced by personality traits, which affect an individual’s perception of stressors and their chosen coping mechanisms (Kaiseler et al., 2012). Understanding these relationships is particularly vital in combat sports, where intense physical contact, unpredictable opponents, and high-performance expectations create a psychologically demanding environment (Ruiz & Hanin, 2011).

Combat sports athletes must maintain a balance between psychological control and physiological readiness to perform effectively (Hanton et al., 2005). However, not all athletes respond to CSA in the same way some thrive under pressure, while others experience performance decrements due to overwhelming stress. Research has shown that personality traits such as extraversion, conscientiousness, and emotional stability are linked to adaptive coping mechanisms, such as problem solving and seeking social support, which help mitigate anxiety and enhance performance (Allen et al., 2013). In the other hand, athletes with high neuroticism tend to rely on maladaptive coping mechanisms, such as avoidance and self-blame, which can increase anxiety and impair performance (Kaiseler et al., 2009).

The increasing emphasis on sports psychology interventions and mental training programs highlights the need to understand how personality influences the way athletes handle CSA. Identifying the interaction between personality traits, coping mechanisms, and CSA can provide valuable insights for coaches, sport psychologists, and athletes in designing targeted psychological training to optimize performance.

This study aims to explore coping mechanisms in managing CSA among selected combat sports athletes in Sri Lanka, with personality traits as a mediating factor. Competitive sports, particularly combat sports, require athletes to manage intense psychological and physiological demands, making their ability to cope with anxiety a key determinant of performance outcomes (Hanton et al., 2005). However, the way athletes respond to competitive anxiety is highly individualized, influenced by their personality traits, which shape their perception of stress and the coping strategies they employ (Kaiseler et al., 2012).

Despite the growing body of research on sports anxiety and coping mechanisms, limited studies have specifically examined how personality traits influence these factors in combat sports athletes. Given the unique cultural, training, and competitive environments of Sri Lankan combat sports, there is a need to understand how personality driven coping mechanisms impact competitive state anxiety in this specific athletic population. This study will employ both quantitative and qualitative approaches to identify dominant personality traits among combat athletes, assess their levels of CSA, and explore the coping mechanisms they use in high pressure situations.

## 1.2. Background of the Study

### 1.2.1. Competitive State Anxiety in Combat Sports

CSA refers to the temporary and situation specific anxiety that athletes experience before or during a competition. It is a psychological and physiological response to the demands of competition, often triggered by the perceived pressure to perform well, fear of failure, or high expectations from coaches, teammates, or spectators (Martens et al., 1996). CSA is typically categorized into three components:

* Cognitive anxiety – Negative thoughts, self-doubt, or worry about performance outcomes (Martens, 1996).
* Somatic anxiety – Physical symptoms such as increased heart rate, muscle tension, or nausea (Robert Stephen Weinberg & Daniel Gould, 2011).
* Self-confidence – The belief in one's ability to succeed, which can buffer the negative effects of anxiety (Craft et al., 2003).

The Competitive State Anxiety Inventory-2 (CSAI-2) is a widely used tool that assesses these dimensions, along with self-confidence levels, providing a comprehensive understanding of an athlete's psychological state before competition (Martens et al., 1990). The impact of CSA on athletic performance follows the inverted-U hypothesis, which suggests that moderate levels of anxiety can be beneficial, enhancing focus, alertness, and motivation. However, excessive anxiety can impair performance by disrupting concentration, increasing muscle tension, and reducing reaction time (Craft et al., 2003). Athletes who fail to regulate their anxiety may experience choking under pressure, which can lead to poor decision-making and performance decline (Hanton et al., 2005).

Combat sports athletes experience higher levels of CSA compared to athletes in noncontact sports due to the one-on-one competition format, high-intensity physical demands, and unpredictable nature of fights (Robazza et al., 2006). Unlike team sports, where responsibility is shared among multiple players, combat sports require athletes to face opponents directly, leading to increased pressure and self-imposed expectations. The physical confrontation, risk of injury, and direct competition heighten anxiety levels, making mental resilience and emotional regulation essential for success (Hanton et al., 2005).

Combat sports athletes, such as those competing in boxing, judo, wrestling, karate, and taekwondo tend to experience higher levels of CSA compared to athletes in non-contact sports. This is due to several key factors:

* One-on-one competition format – Unlike team sports where responsibilities are shared, combat athletes bear the full burden of victory or defeat, heightening psychological pressure (Robazza et al., 2006).
* High-intensity physical demands – Combat sports require explosive power, endurance, and rapid decision-making, all of which can be disrupted by excessive anxiety (Tabben et al., 2014).
* Unpredictable nature of fights – Unlike structured team sports with predefined plays, combat sports involve dynamic, rapidly changing situations, requiring fighters to make split-second tactical adjustments under extreme pressure (Jones et al., 1994).
* Direct physical confrontation – The inherent risk of injury and pain in combat sports further elevates anxiety levels, making mental resilience and emotional regulation essential for peak performance (Hanton et al., 2005).

Research has shown that elite combat athletes develop psychological coping mechanisms to manage CSA effectively. For example, fighters with higher self-confidence and strong emotional control can channel their anxiety into productive energy, leading to improved performance (Robazza et al., 2006). On the other hand, athletes who experience excessive cognitive anxiety or rely on maladaptive coping mechanisms (e.g., avoidance, self-doubt) tend to underperform or experience burnout (Kaiseler et al., 2009).

Combat athletes must develop strong psychological skills to manage CSA effectively. Studies show that elite fighters use pre-performance routines, visualization, controlled breathing, and cognitive restructuring to regulate anxiety and maintain focus (Tod et al., 2011). Those with higher levels of emotional stability and conscientiousness tend to experience lower CSA, as they employ adaptive coping mechanisms such as problemsolving and self-talk (Kaiseler et al., 2009). Understanding CSA in combat sports is crucial, as poor anxiety management can lead to impaired decision-making, reduced reaction time, and decreased confidence all of which can negatively impact fight outcomes. Therefore, examining how personality traits influence CSA and their own coping mechanisms is essential for developing targeted psychological training programs for combat athletes.

### 1.2.2. Coping Mechanisms in Competitive Sports

Coping is a process that we as individuals employ every day. We engage in coping when we feel under stress or want to manage a taxing situation. The process of coping involves two components, appraisal and coping. Appraisal is the act of perceiving a stressor and analysing one's own ability to deal with the stressor. Appraisal can be made in three different conditions: when we have experienced a stressor, when we anticipate a stressor and when we experience a chance for mastery or gain (Lazarus, 1966). Once we appraise a stressful situation, we must decide how we will respond or ‘cope’ with the stressor, either choosing to master it, reduce it or tolerate it. The coping mechanisms we engage in is ultimately determined by whether we believe we have the resources to resolve the stressor (Folkman, 2013).

In competitive sports, coping mechanisms are essential psychological strategies that athletes use to manage stress, regulate emotions, and maintain optimal performance during high-pressure situations. Coping plays a crucial role in an athlete’s ability to deal with

CSA, which can either enhance or hinder performance depending on how it is managed (Nicholls & Polman, 2007). Given that combat sports involve direct confrontation, intense physical exertion, and high stakes, athletes must develop effective coping mechanisms to navigate the psychological demands of competition.

Coping mechanisms are broadly categorized into three primary types:

1. Problem Focused Coping

Problem focused coping refers to strategies that directly address the source of stress and aim to change or control the situation causing anxiety. Athletes who use this type of coping are proactive in managing performance related challenges by implementing practical solutions. Examples include:

* + Goal setting – Setting specific, measurable, and realistic goals to stay focused and motivated.
  + Mental preparation – Engaging in pre-competition visualization, self-talk, and breathing techniques to enhance confidence and concentration.
  + Tactical adjustments – Making strategic changes during competition, such as modifying fighting techniques or adjusting game plans based on the opponent’s weaknesses.

Research indicates that problem focused coping is generally linked to better anxiety management and improved performance outcomes, as it helps athletes remain in control of the situation and reduce uncertainty (Kaiseler et al., 2012). In combat sports, high performing athletes tend to use problem focused coping mechanisms more frequently, as they are associated with resilience, adaptability, and a strong competitive mindset (Fletcher & Sarkar, 2012).

1. Emotion Focused Coping

Emotion focused coping involves strategies aimed at managing the emotional response to stress, rather than directly addressing the stressor itself. While some emotion focused mechanisms can be adaptive (e.g., relaxation techniques), many are maladaptive and may negatively impact performance, particularly in high-pressure competitive settings (Kaiseler et al., 2009). Examples include:

* + Self-blame – Attributing failure to personal inadequacies, leading to decreased confidence.
  + Avoidance – Ignoring or distancing oneself from the stressor, which can lead to disengagement and lack of preparation.
  + Denial – Refusing to acknowledge anxiety or competitive pressure, potentially resulting in poor performance and lack of strategic adjustments.

Studies suggest that athletes with higher levels of competitive state anxiety tend to rely more on emotion focused coping, which can be detrimental to performance in demanding sports like combat sports (Ntoumanis & Biddle, 1998). This is because combat sports require quick decision-making, emotional control, and tactical flexibility, all of which can be hindered by excessive emotional distress (Ruiz & Hanin, 2011).

1. Avoidance Focused Coping

Avoidance focused coping is a subtype of emotion-focused coping where athletes attempt to manage stress by evading, ignoring, or distancing themselves from the stressor rather than actively addressing it (Krohne & Hock, 1993). While avoidance strategies may provide temporary relief from anxiety, they are generally ineffective in high pressure competitive environments, such as combat sports, where athletes must engage directly with their opponents and challenges. Examples include:

* + Procrastination in training and preparation
  + Mental disengagement during competition
  + Avoiding feedback and coaching advice
  + Self-handicapping (making excuses before competition)
  + Quitting or withdrawing from competition
  + Using distractions to escape anxiety

Although avoidance focused coping may reduce immediate competitive state anxiety, research suggests that it is detrimental to long term athletic performance because it prevents athletes from developing constructive problem-solving skills and adaptive emotional regulation (Nicholls & Polman, 2007).

### 1.2.3. Effectiveness of Coping Mechanisms in Athletes

The effectiveness of coping mechanisms varies across athletes, influenced by factors such as personality traits, competitive experience, and psychological training (Kaiseler & Polman, 2012). Research has found that; Athletes with higher self-confidence and emotional regulation skills tend to use more problem-focused coping, leading to better anxiety management and performance. Athletes who exhibit neurotic tendencies or lack mental resilience often resort to maladaptive emotion focused coping, which can worsen competitive anxiety and impair performance (Kaiseler et al., 2009). Elite level athletes demonstrate greater adaptability in using a combination of coping mechanisms, depending on the demands of the competition (Fletcher & Sarkar, 2012).

### 1.2.4. Personality

The American Psychological Association (APA) defines personality as the, “individual differences in characteristic patterns of thinking, feeling and behaving,”(American Psychological Association, 2015). The field of personality is different from many other disciplines. Personality theory is holistic in nature because it studies all aspects of an individual instead of one component (Matthew H. et al., 2011). Thus, personality theories must synthesize human nature by combining different areas of study such as biology, neuroscience and philosophy (Olson et al., 2011). This approach allows personality theorists to encompass virtually all components of human nature and provide explanations of individual behaviour. However, personality is not concrete, but rather a dynamic process that has the ability to change. Martens (1975) explains that individual behaviour may change depending on the situation (Robert Stephen Weinberg & Daniel Gould, 2011). Personality can fluctuate because individuals can respond either characteristically or in response to the demands of the environment. Personality theorists’ goals are to explain the components of human nature and how humans are similar and different across situations. Research explains that not one theory is completely successful in describing human nature. Therefore, it is important to recognize that most theories emphasize different aspects (Matthew H. et al., 2011). **1.2.4.1. Types of personality**

Extraversion – The extraversion factor assesses the amount of social interaction, activity level and the feature of joy in an individual (Trninić et al., 2008). Extraversion is the sociability factor and assesses how “outgoing” an individual may be. Individuals with higher scores prefer frequent interpersonal interactions and are typically energized and optimistic. These individuals can be described as warm, sociable, active, fun loving, dominant and cheerful. Individuals with lower scores are more reserved and prefer a few close relationships than compared to a large group of people (McCrae & Sutin, 2007).

Agreeableness – The agreeableness factor accounts for the quality of relationships with others (Trninić et al., 2008). Agreeableness explains how an individual acts with and towards others. Individuals with higher scores tend to act unselfishly and regard others with sympathy. These individuals can be described as trusting, honest, humble and forgiving. Individuals with lower scores are typically not concerned about other people. Individuals with low agreeableness scores can be described as hostile, suspicious, manipulative, selfish and stubborn (McCrae & Sutin, 2007).

Conscientiousness – The conscientiousness factor describes an individual’s task orientation and goal orientation behaviours as well as their level of impulse control (Trninić et al., 2008). Individuals with high conscientiousness scores, “control their behaviour in the service of their goals,”. These individuals are often described as careful, self-disciplined, ambitious, efficient and organized. Low scorers reflect behaviours of disorganization, unreliability and tend to have a hard time keeping a consistent schedule. These individuals can also be described as: lax, lazy, weak-willed or untidy (McCrae & Sutin, 2007).

Neuroticism – The neuroticism factor identifies individuals whom are emotionally stable or emotionally unstable. This trait recognizes, “persons who tend to feel negative emotions (anxiety, bitterness, sorrow), who suffer from unrealistic ideas, excessive yearning and urges and have or suffer from maladaptive stress-coping strategies,” (Trninić et al., 2008). High scorers experience a variety of emotional distresses. These individuals can be described as: anxious, irritable, self-conscious and impulsive (McCrae & Sutin, 2007).

Openness to Experience – The openness to experience factor also referred to as intellect assesses an individual’s level of adventurous and self-seeking qualities. Individuals with high scores have a tendency to seek out new experiences. These individuals are often described as imaginative, artistic, curious and empathic. Low scorers are typically traditional, conservative and prefer familiarity. Lower openness to experience scores also reflect individuals that are described as “down-to-earth”, old-fashioned or concrete (McCrae & Sutin, 2007).

### 1.2.5. Role of Personality Traits in Coping and Competitive State Anxiety

Personality traits significantly influence an athlete’s ability to cope with stress and anxiety in competitive settings. The big five personality traits model (Robert R. et al., 1999) categorizes personality into five dimensions: openness, conscientiousness, extraversion, agreeableness, and neuroticism. These traits impact how athletes respond to stressors, regulate emotions, and adopt coping mechanisms, making personality a critical factor in understanding competitive state anxiety (CSA).

Extraversion and conscientiousness have been linked to more adaptive coping mechanisms, enabling athletes to manage stress and anxiety more effectively. Extraverted athletes, characterized by sociability, assertiveness, and positive emotionality, tend to employ problem-focused coping mechanisms such as seeking social support and engaging in task-oriented behaviours (Kaiseler et al., 2012). Conscientious athletes, who exhibit high levels of discipline, organization, and goal orientation, are more likely to utilize effective coping mechanisms such as planning and cognitive restructuring, reducing the adverse effects of anxiety (Kaiseler et al., 2009). These traits contribute to better emotional regulation and resilience in high-pressure sports environments.

Neuroticism is strongly associated with heightened levels of CSA and a reliance on maladaptive coping mechanisms. Neurotic athletes, who experience heightened emotional instability, are prone to excessive worry, self-doubt, and negative thinking, leading to increased stress and anxiety before and during competition (Kaiseler & Polman, 2012). Research suggests that neurotic athletes frequently resort to avoidance, denial, and selfblame, which exacerbate anxiety and hinder performance (Allen et al., 2013). Such athletes may struggle with cognitive and emotional control, making them more vulnerable to performance declines under pressure. Understanding an athlete’s personality can provide valuable insights into their stress responses and coping effectiveness.

## 1.3. Rationale and Justification

Competitive state anxiety is a significant psychological factor influencing athlete performance, particularly in high-intensity sports such as combat sports. Examples include karate, taekwondo, wrestling, and judo. Combat sports athletes often face extreme physical and psychological pressures, requiring not only physical strength but also mental resilience to manage stress, aggression, and performance expectations (Jones, 1995). Anxiety in these athletes can impact confidence, decision-making, and concentration, potentially leading to performance declines (Allen et al., 2013). Consequently, understanding how athletes cope with anxiety is crucial in optimizing their psychological and competitive readiness.

Coping mechanisms play a vital role in an athlete’s ability to manage CSA effectively. Coping strategies categorized as problem-focused, emotion-focused, or avoidance-based help athletes regulate stress, anxiety, and maintain performance levels under pressure (Endler & Parker, 1990). However, the application of coping mechanisms in combat sports remains underexplored, despite the sport specific demands of managing direct physical confrontation, aggression control, and rapid decision-making. Importantly, not all athletes respond to CSA in the same way, as individual personality traits influence how CSA is perceived and managed. Research indicates that extraverted and conscientious athletes tend to adopt adaptive coping mechanisms, while neurotic athletes are more prone to maladaptive coping mechanisms, such as avoidance or self-blame (Kaiseler et al., 2012).

Despite the well-established combination between personality traits, CSA, and coping mechanisms, previous studies have largely examined these variables separately. Research has explored personality traits in sports performance (Martens et al., 1996), CSA and its effects (Zhang et al., 2018), and the role of coping mechanisms (Nicholls & Polman, 2007), yet few studies have investigated the interrelationships among these factors in combat sports. Given the sport’s psychological demands such as maintaining composure under pressure, managing pre-fight nerves, and responding to intense physical challenges, understanding how personality traits influence coping mechanisms in combat athletes is a necessary area of study.

Furthermore, most research on anxiety and coping in sports has been conducted in Western contexts, with limited focus on South Asian athletes, particularly in Sri Lanka. Cultural differences in training environments, competition stressors, and psychological resilience may significantly affect how athletes cope with CSA (Nicholls et al., 2010). Many Sri Lankan coaches and sports psychologists still adopt a "one-size-fits-all" approach to mental training, which may overlook individual personality differences in coping effectiveness. This gap in research highlights the need for a personalized psychological approach tailored to different personality types to enhance mental wellbeing and optimize performance.

By first identifying athletes’ personality traits, then assessing their CSA levels, and finally exploring their coping mechanisms through qualitative interviews, this study provided a comprehensive view of how different personality types manage CSA in high stakes competitive environments. The findings will contribute to sports psychology by offering empirical evidence for the development of personalized mental training programs. Such programs can help combat sports athletes enhance their psychological preparation, improve anxiety regulation, and maximize their competitive performance based on their unique personality profiles.

This study addresses an important gap in sports psychology by bridging the interaction between personality traits, CSA, and coping mechanisms in combat sports athletes. The insights gained will be valuable for sports psychologists, coaches, and athletes, enabling them to implement targeted interventions that foster psychological resilience and improve athletic outcomes.

## 1.4. Research Problem

Combat sports athletes operate in high-pressure environments where success depends not only on physical skill but also on psychological resilience. CSA is a key psychological factor that influences performance, affecting concentration, emotional control, and aggression regulation. While some athletes harness anxiety to enhance focus and motivation, others struggle with its negative effects, leading to impaired decision-making, loss of confidence, and decreased performance. Given the intense and unpredictable nature of combat sports, understanding how athletes manage CSA is essential for optimizing their psychological and competitive readiness.

Personality traits play a crucial role in how athletes perceive and respond to CSA. Research suggests that extraverted and conscientious athletes tend to adopt adaptive coping mechanisms, while neurotic athletes are more prone to maladaptive coping mechanisms such as avoidance and self-blame (Kaiseler et al., 2012). However, the specific role of personality traits as a mediator between coping mechanisms and CSA remains underexplored, particularly in combat sports athletes. Without a deeper understanding of these psychological interactions, existing mental training programs may fail to address the unique needs of athletes with different personality profiles. This study seeks to address the following key research problem, how do coping mechanisms manage competitive state anxiety, and to what extent do personality traits mediate? And how do psychological coping mechanisms vary among athletes with different personality profiles.

Existing research has separately examined personality traits in sports performance, competitive anxiety, and coping mechanisms (Cosway et al., 2000; Hanson et al., 1992;

Radochoński et al., 2011). However, few studies have explored their interrelationships within combat sports, where athletes face distinct stressors such as cognitive anxiety, somatic anxiety and self-confidence. Furthermore, most research in this field has been conducted in Western contexts, with limited focus on athletes from non-Western countries like Sri Lanka, where cultural factors may influence CSA and coping styles (Nicholls et al., 2009).

Without a clear understanding of how personality traits, CSA, and coping mechanisms interact, coaches, trainers, and sports psychologists may struggle to design effective, personalized mental training programs that cater to individual differences. This study aims to fill this gap by investigating these psychological variables in Sri Lankan combat sports athletes, it helps contributing to the development of tailored interventions that enhance mental resilience and performance.

## 1.5. Objectives

### 1.5.1. Overall Objective

• To explore the coping mechanisms for manage competitive state anxiety based on personality traits in combat sports athletes in Sri Lanka.

### 1.5.2. Specific Objective

• To identify the different personality traits of combat sports athletes.

## 1.6. Significance of the Study

This study aims to enhance the understanding of how personality traits, CSA, and coping mechanisms interact in combat sports athletes. Given the psychological demands of combat sports, where athletes must manage high-pressure situations, direct confrontation, and intense competition, mental resilience is as crucial as physical skill. However, current psychological training programs often adopt a one-size-fits-all approach, overlooking individual differences in personality and coping mechanisms. This study seeks to fill this gap by providing empirical evidence on the psychological factors influencing CSA regulation in combat sports.

Theoretical Contributions

* This study will contribute to sports psychology literature by exploring the mediating role of personality traits to CSA and coping mechanisms, a relatively underexplored area in combat sports.
* It will extend existing research on personality in sports performance, offering insights into how different personality types experience and manage CSA in selected combat sports athletes
* The findings will be particularly relevant in non-Western contexts, addressing the lack of research on Sri Lankan combat sports athletes and examining potential cultural influences on CSA and coping mechanisms.

Practical Contributions

* For Coaches and Trainers: The study’s findings will help coaches design personalized mental training programs based on athletes' personality traits, optimizing their ability to manage CSA and enhance performance.
* For Sports Psychologists: Understanding how personality influences coping mechanisms will allow psychologists to develop individualized interventions, improving athletes' mental resilience and competitive mindset.
* For Athletes: By identifying which coping mechanisms are most effective for different personality types, this research will empower athletes to develop better self-regulation techniques, beneficial for improving their ability to perform under pressure.

## 1.7. Limitations of the Study

While this study aims to provide valuable insights into the CSA and coping mechanisms in selected combat sports athletes based on their different personality profiles. It is subject to several limitations that must be acknowledged.

Sample size and generalizability: This research focuses on a selected group of combat sports athletes in Sri Lanka, which may limit the generalizability of the findings to other populations. Future research should consider larger and more diverse samples to improve external validity.

Self-report measures: The study relies on self-report questionnaires to assess personality traits, CSA, and coping mechanisms. While these tools are widely used in sports psychology, self-reported data may be subject to biases such as social desirability or misinterpretation of questions. Triangulating self-reports with behavioral observations or physiological measures of anxiety (e.g., heart rate variability) could strengthen future research.

Gender specific focus: This study exclusively examines female combat sports athletes, which limits the generalizability of the findings to male athletes. Research suggests that gender differences exist in anxiety responses and coping mechanisms, with some studies indicating that female athletes may experience higher levels of CSA and rely more on emotion-focused coping than males (Tamres et al., 2002). Future research should include male athletes to determine whether similar patterns exist across genders.

## 1.8. Definitions of the Key Terms

Coping mechanisms – Coping mechanisms are the strategies and techniques individuals use to manage stress, anxiety, and challenging situations. In sports, coping mechanisms help athletes regulate their emotions and maintain focus during competition. These strategies can be problem-focused (actively addressing the source of stress), emotionfocused (managing emotional responses), or avoidance-based (distancing oneself from the stressor) (Endler & Parker, 1990).

Competitive state anxiety – CSA refers to the temporary feelings of nervousness, worry, and tension that athletes experience before or during a competition. It includes physical symptoms like sweating and rapid heartbeat, as well as mental effects such as fear of failure and loss of focus. CSA can be either helpful or harmful, depending on how an athlete manages it (Martens et al., 1990).

Personality traits – Personality traits are stable patterns of thoughts, feelings, and behaviors that differentiate individuals from one another (Robert R. et al., 1999). These traits influence how people react to different situations, including stress and competition. The big five personality traits model categorizes personality into five key dimensions: openness, conscientiousness, extraversion, agreeableness, and neuroticism. Each trait affects how individuals handle challenges, including anxiety and coping in sports (Oliver P. John & Sanjay Srivastava, 1999).

Emotional regulation – Emotional regulation refers to the ability to manage and control one’s emotional responses to different situations, especially stressful or high-pressure events. It involves recognizing emotions, adjusting them when necessary, and using strategies to maintain emotional stability (Gross, 1998). In sports, emotional regulation helps athletes stay focused, control anxiety, and perform effectively under pressure (Wagstaff, 2014).

Emotional resilience – Emotional resilience is the ability to adapt, recover, and maintain emotional stability in the face of stress, challenges, or adversity (Sarkar & Fletcher, 2014).

In sports, emotionally resilient athletes can manage pressure, stay focused, and perform well despite setbacks or anxiety. This resilience helps them cope with competition stress and maintain confidence during high-pressure situations (Galli & Gonzalez, 2015).

## 1.9. Structure of the Thesis

# Chapter Ⅰ

The introduction chapter establishes the foundation of this study by exploring coping mechanisms in managing CSA among selected female combat sports athletes aged 20–25 in Sri Lanka. It highlights the significance of personality based coping mechanisms in combat sports, emphasizing how different coping mechanisms influence CSA and how personality traits mediate it. The study adopts a mixed-methods approach to identify personality traits, assess CSA levels, and explore coping mechanisms through qualitative interviews. While the study offers valuable contributions, it acknowledges limitations such as its gender-specific focus, and reliance on self-report measures. Overall, this research seeks to enhance the understanding of psychological factors in combat sports, contributing to both academic knowledge and practical applications in sports psychology. Chapter Ⅱ

The theoretical framework and literature review chapter established the foundation for this study by integrating key psychological theories and existing research related to personality traits, competitive state anxiety, and coping mechanisms in sports psychology. The big five personality traits model (Robert R. et al., 1999)provided the theoretical basis for understanding individual differences in personality and their influence on anxiety regulation. Additionally, theories of competitive anxiety (Martens et al., 1996) and coping mechanisms (Endler & Parker, 1990) explained how people respond to stress in highpressure environments. The literature review examined prior research on personality traits and CSA, highlighting findings that extraversion and conscientiousness are associated with adaptive coping, whereas neuroticism correlates with maladaptive responses (Kaiseler et al., 2012). While existing studies have explored these relationships in separately in sports settings, there is a lack of research specifically on these three factors influence in female combat sports athletes.

Chapter Ⅲ

Materials and methodology are covered in the third chapter. The third chapter begins with an introduction to the research's problem statement. This chapter outlines the procedures and methods used to conduct the study. It provides a detailed description of the research design, study area, the target population, sample size, and the sampling techniques used to select participants. It also explains the tests used for data collection and the methods applied in data analysis. Furthermore, the materials utilized, and software tools employed in processing the data are discussed. Finally, the chapter addresses the ethical considerations that were observed throughout the research process, ensuring that the study adhered to the necessary ethical standards.

Chapter Ⅳ

The results are discussed in the fourth chapter. This study aimed to explore how personality traits influence CSA and the coping mechanisms employed by female combat sport athletes in Sri Lanka. The results from both quantitative and qualitative analyses offer an integrated understanding of the psychological disposition and anxiety management in high-performance environments. This section interprets the findings in relation to previous literature, highlights practical implications, and outlines future research directions.

Chapter Ⅴ

The fifth chapter consists of the conclusion. Using a mixed-methods approach, the research found that athletes adopt coping strategies aligned with their personality profiles. Neurotic individuals tended to struggle with somatic anxiety, while conscientious athletes managed cognitive anxiety through structure and planning. Extraverts relied on social support, agreeable athletes fostered emotional connection, and those high in openness used creative coping techniques. The findings highlight the importance of personalized mental skills training based on individual personality traits, offering practical implications for coaches and sport psychologists. The study emphasizes the value of a tailored approach to athlete development and psychological well-being.

**CHAPTER Ⅱ**

# THEORETICAL FRAMEWORK AND LITERATURE REVIEW

## 2.1. Theoretical Framework

This section should present the theories that explain the coping mechanisms, competitive state anxiety and personality traits in combat sports athletes.

### 2.1.1. Multidimensional Anxiety Theory (MAT)

The multidimensional anxiety theory (MAT), is a framework that explains the relationship between anxiety and sports performance by distinguishing between different components of anxiety. Unlike earlier models that treated anxiety as a single construct, MAT identifies cognitive anxiety, somatic anxiety, and self-confidence as key factors influencing an athlete’s performance.

Cognitive Anxiety refers to the mental aspects of anxiety, such as worry, negative thoughts, and fear of failure. This type of anxiety is primarily associated with performance expectations, self-doubt, and an athlete’s perception of their ability to succeed. High levels of cognitive anxiety are typically detrimental to performance, as excessive worry can impair concentration and decision-making.

Somatic Anxiety involves the physiological symptoms of anxiety, including increased heart rate, muscle tension, sweating, and nervousness. Unlike cognitive anxiety, which tends to be stable leading up to competition, somatic anxiety usually peaks just before performance and declines once the competition begins. A moderate level of somatic anxiety can sometimes be beneficial, as it signals physiological readiness for action, but excessive levels can lead to impaired coordination and fatigue.

Self-Confidence is an important moderating factor in MAT. Athletes with higher selfconfidence are better able to manage anxiety and maintain focus under pressure. According to the theory, self-confidence can counteract the negative effects of cognitive and somatic anxiety, helping athletes perform at their best even in high-stress situations.

The multidimensional anxiety theory suggests that cognitive anxiety has a negative linear relationship with performance meaning that as worry increases, performance tends to decline. In contrast, somatic anxiety follows an inverted-U relationship, meaning that moderate levels can enhance performance, but too much or too little somatic anxiety can be detrimental (Martens, 1996).

### 2.1.2. The Multidimensional Model of Coping

The multidimensional model of coping, expands on earlier coping theories by categorizing coping responses into a structured and hierarchical framework. This model highlights that coping is a complex and dynamic process, involving multiple strategies that individuals use to regulate stress. Unlike traditional models that classify coping into broad categories such as problem-focused and emotion-focused coping, the multidimensional model of coping identifies higher order dimensions of coping strategies, recognizing that athletes often employ a combination of coping mechanisms rather than relying on a single approach.

The model classifies coping strategies into three primary dimensions: engagement coping, disengagement coping, and secondary control coping. Engagement coping refers to active efforts to deal with a stressor and includes problem-solving, seeking social support, and positive reappraisal. This strategy is commonly used when an athlete perceives a stressor as controllable and wants to take action to improve performance. Disengagement coping, on the other hand, involves avoiding or withdrawing from the stressor, such as denial, distraction, or mental disengagement. While disengagement coping may provide temporary relief, over-reliance on avoidance strategies can lead to long-term performance issues. Secondary control coping involves adjusting oneself to the stressor rather than trying to change the situation. This includes strategies such as acceptance, cognitive restructuring, and emotional regulation.

In the context of competitive sports, the multidimensional model of coping provides a nuanced perspective on how athletes regulate stress and anxiety. Combat sports athletes, for example, may use engagement coping by refining their techniques or seeking advice from a coach, while others may resort to disengagement coping, such as mentally withdrawing from competition to reduce pressure. Additionally, athletes may use secondary control coping strategies like acceptance and self-reflection to adapt to the stress of competition. The model emphasizes that coping is not a one-size-fits-all approach and that athletes must develop a flexible coping repertoire to effectively manage competitive anxiety (Skinner et al., 2003).

### 2.1.3. The Five Factor Model (Big Five Personality Traits)

Personality theorists have created a number of inventories to assess an individual’s personality. Derived from Cattell’s Sixteen Personality Factor Questionnaire (16PF; Cattell, 1957, 1973) the Five Factor Model (FFM) is one of the most common and empirically tested assessments for explaining personality. The FFM provides a framework for describing personality and has been supported through application and practice (Oliver

P. John & Sanjay Srivastava, 1999). This model has been applied to a variety of settings and populations including, cross-cultural research (Rolland, 2002), clinical settings (Costa & McCrae, 1990), and career development (Lee et al., 2000). Other inventories have been created based on the FFM, such as the Revised Neuroticism, Extraversion, and Openness to Experience Personality Inventory (Costa et al., 1992), the Big Five Inventory (Lewis Goldberg, 1990)and Chinese Personality Assessment Inventory (Heine, 2012). Given the importance and utility of the FFM, as well as the quality of the measures that have been created for non-clinical populations the FFM would appear to be an appropriate way to address the issues pertaining to personality.

The Five Factor Model (FFM), also known as the Big Five Personality Traits, is a widely accepted framework in psychology that describes human personality through five broad dimensions: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (Costa, 1999).This model suggests that personality traits influence how individuals perceive, respond to, and cope with competitive state anxiety, making it highly relevant in the context of sports psychology and competitive anxiety.

Openness to Experience refers to an individual’s willingness to engage in novel experiences, creativity, and adaptability. Athletes high in openness may be more receptive to new training methods and innovative coping strategies, allowing them to handle stress with flexibility (Allen et al., 2013).

Conscientiousness reflects self-discipline, organization, and goal-oriented behavior. Highly conscientious athletes tend to adopt problem-focused coping mechanisms, such as structured preparation and perseverance, to manage competitive anxiety effectively (Mitić et al., 2021).

Extraversion is characterized by sociability, assertiveness, and high energy levels. Extraverted athletes often thrive in high-pressure environments and use engagement coping mechanisms, such as seeking social support and positive self-talk, to enhance performance (Mosley & Laborde, 2016; Roberts & Woodman, 2017).

Agreeableness involves traits like cooperation, empathy, and trust. Athletes with high agreeableness may rely on teamwork and interpersonal relationships to manage stress, benefiting from emotional support and collaborative coping strategies (Ziv, 2013).

Neuroticism, the tendency to experience negative emotions such as anxiety and mood instability, is particularly relevant in sports psychology. Athletes high in neuroticism are more prone to competitive state anxiety and may engage in maladaptive coping strategies, such as avoidance or self-doubt, which can negatively impact performance (Bojanić et al., 2019).

The FFM provides researchers with a simplistic method to organize personality. The growing popularity of the FFM (Boyle, 2008) and the utility of the instrument has led to the study of personality from general settings to more unique circumstances and situations. Specifically, athletes and the impact of their personalities on their performances has been a question for many researchers. For example, research demonstrated the usefulness of the FFM as a predictor of performances as well as a theoretical paradigm to understand athletic behaviour (Piedmont et al., 1999). This particular branch of personality research has provided researchers with opportunities to observe, study and understand personality as it pertains to the athletic setting.

## 2.2. Literature Review

### 2.2.1. Coping Mechanisms and Competitive State Anxiety

##### 2.2.1.1. Avoidant Focused Coping and Competitive State Anxiety

Avoidant coping strategies, characterized by efforts to evade stressors rather than confront them, have been extensively examined within the context of competitive state anxiety (CSA) among athletes. These strategies include behaviors such as denial, distraction, and mental disengagement, which may provide temporary relief but often fail to address the underlying causes of anxiety (B & Dsouza, 2025).

Research indicates that reliance on avoidant coping is positively associated with increased levels of CSA. A study found that athletes who frequently employed avoidance coping strategies experienced higher anxiety levels during competition. This relationship suggests that avoidant coping may exacerbate feelings of apprehension and nervousness, potentially hindering athletic performance (Kaiseler & Polman, 2012).

The interplay between coping mechanisms and psychological resilience is significant. Athletes with higher resilience tend to adopt proactive coping methods, which can buffer the impact of CSA. A study highlighted that resilient athlete perceive competitive challenges as opportunities for growth, thereby reducing the likelihood of resorting to avoidant behaviors (Fletcher & Sarkar, 2012) The literature suggests that avoidant coping strategies are linked to heightened competitive state anxiety among athletes. Encouraging the development of active coping mechanisms and enhancing psychological resilience may serve as effective interventions to alleviate CSA and promote optimal performance.

##### 2.2.1.2. Problem Focused Coping and Competitive State Anxiety

Competitive state anxiety is a common experience among athletes, characterized by feelings of tension and apprehension in competitive settings. To manage CSA effectively, athletes often employ various coping mechanisms, significantly problem focused coping. This approach involves actively addressing the source of stress through strategies such as goal setting, time management, and seeking support, aiming to mitigate the stressor directly (Folkman & Lazarus, 1980).

Research indicates that problem focused coping can significantly influence athletes' experiences of CSA. A study involving young martial arts athletes found that those who utilized problem focused mechanisms, such as developing specific plans to improve performance, reported lower levels of competitive anxiety (Radochoński et al., 2011). This suggests that by actively engaging with the stressor, athletes can reduce anxiety and enhance performance.

The effectiveness of problem focused coping may be moderated by factors such as emotional intelligence and the coping strategies employed. A recent study on track and field athletes demonstrated that those with higher emotional intelligence and effective coping mechanisms experienced reduced CSA and improved performance (Yue et al., 2025). This highlights the importance of developing emotional intelligence alongside problem focused coping skills to manage competitive anxiety effectively.

Coping strategies play a mediating role between CSA and sport commitment. In a study of adolescent athletes, problem focused coping was found to mediate the relationship between cognitive anxiety and sport commitment, indicating that effective coping can enhance athletes' dedication to their sport despite experiencing anxiety (Pons et al., 2018).

##### 2.2.1.3. Emotion Focused Coping and Competitive State Anxiety

Emotion focused coping plays a significant role in how athletes manage competitive state anxiety (CSA), particularly in high pressure environments such as combat sports. This coping strategy involves regulating emotional responses to stressors rather than directly addressing the stressor itself. Techniques such as relaxation, meditation, and cognitive restructuring are commonly employed to alleviate the emotional distress associated with competition (Folkman & Lazarus, 1980).

Research indicates that athletes often utilize emotion focused coping mechanisms to manage CSA. Studies have observed that female athletes tend to employ emotion focused coping strategies more frequently than their male counterparts, potentially due to higher levels of anxiety experienced in competitive settings (Nuetzel, 2023). The intensity of cognitive anxiety has been linked to the use of emotion focused and avoidance coping mechanisms, suggesting that athletes perceiving higher anxiety may resort to these methods to mitigate stress (Nicholls & Polman, 2007).

The effectiveness of emotion focused coping in managing CSA varies among athletes. While some studies suggest that these strategies can help in reducing anxiety levels, others indicate that they may not directly enhance performance outcomes. For example, research comparing martial arts athletes to track and field athletes found that martial artists reported higher self-confidence and lower cognitive and somatic anxiety, potentially due to their training in emotion regulation techniques (Ziv, 2013). However, the direct impact of emotion focused coping on performance metrics requires further investigation. In the context of combat sports, the unpredictable and high stakes nature of competition can exacerbate CSA. Athletes may face unique stressors, including the risk of injury and the need for rapid decision-making under pressure. Emotion focused coping mechanisms, such as mindfulness and relaxation techniques, have been suggested to help athletes manage these stressors effectively. Implementing stress management programs that incorporate these techniques can lead to reduced anxiety and improved performance (Nuetzel, 2023).

### 2.2.2. Relationship between Competitive State Anxiety and Coping Mechanisms

Research has examined how different coping mechanisms interact with cognitive and somatic anxiety. Research found that problem-focused coping mechanisms are more effective in reducing cognitive anxiety, as they help athletes regain control over stressful situations (Kaiseler et al., 2013).Emotion-focused coping mechanisms, such as deep breathing and mindfulness, are particularly useful in managing somatic anxiety by reducing physiological symptoms (Birrer & Morgan, 2010). Avoidance coping, has been consistently linked to increased cognitive and somatic anxiety. Athletes who avoid dealing with competition related stressors tend to experience greater pre-competition anxiety and lower performance levels (Nicholls & Polman, 2007). Self-confidence plays a mediating role in the relationship between coping and competitive anxiety. Athletes with high selfconfidence are more likely to use adaptive coping strategies and experience lower levels of competitive anxiety (Woodman, Tim, et al., 2003).

### 2.2.3. Gender and Experience based Differences in Coping

Coping mechanisms play a crucial role in managing competitive state anxiety among athletes. Various studies have highlighted differences in coping mechanics based on gender and competitive experience, with athletes adopting diverse methods to handle psychological stressors (Nicholls et al., 2009; Kaiseler et al., 2012). Research indicates that male and female athletes often exhibit different coping styles due to psychological, social, and cultural factors. Studies suggest that females are more likely to use emotionfocused coping mechanisms such as seeking social support and positive reappraisal, whereas males tend to favor problem-focused coping, such as active planning and behavioral strategies (Nicholls & Polman, 2007; Tamres et al., 2002). Kaiseler et al. (2012) found that female athletes reported higher levels of avoidance coping, such as distancing themselves from stressful situations, compared to male athletes, who exhibited higher levels of active coping. Research showed men tend to use more direct, confrontational coping mechanisms, whereas women rely on cognitive reappraisal and emotional regulation (Crocker & Graham, 1995). In combat sports, these differences may be particularly relevant, as female athletes may experience higher social pressure and genderrelated stereotypes, influencing their coping choices (Didymus, 2017). However, some studies indicate that as competition levels increase, gender differences in coping may diminish due to the influence of training and psychological conditioning (Nicholls et al., 2009).

Athletic experience significantly influences the selection and effectiveness of coping strategies. Research shows that experienced athletes develop more adaptive coping mechanisms compared to novices, as they possess higher psychological resilience and sport specific coping skills (Nicholls et al., 2006). Experienced athletes tend to employ problem-focused strategies, including task-oriented coping and cognitive restructuring, which enable them to regulate emotions effectively during competition (Krohne & Hock, 1993). In the other hand, less experienced athletes often resort to avoidance strategies or display a higher tendency for emotional distress when confronted with competitive pressure (Ntoumanis & Biddle, 1998). Elite athletes demonstrate superior self-regulation and cognitive appraisal skills, which allow them to reframe competitive anxiety as a challenge rather than a threat (Kaiseler et al., 2009). This ability is linked to their prolonged exposure to high-pressure situations, enabling them to refine their coping mechanics through experience and training (Krohne & Hock, 1993).

While gender and experience independently influence coping strategies, their interaction can further differentiate coping responses. For example, experienced female athletes may develop more problem-focused mechanics compared to less experienced counterparts

(Nicholls & Polman, 2007). Research suggests that male athletes with lower experience levels may rely more on avoidance-based coping, while those with extensive competitive exposure display greater emotional regulation and adaptability (Tamres et al., 2002).

### 2.2.4. Personality and Athletes

Researchers have sought to explore the notion of an “ideal” athletic personality type. When comparing performances of successful athletes to unsuccessful athletes there appears to be major differences between these two groups. Are there innate, cognitive differences or personalities that underlie the performances of these groups of athletes? Much inquiry has been applied to this thought and research has been mostly inconclusive. Research has been unable to identify a sound theoretical background as well as consistent research that supports a distinguishable athletic personality type (Shirl J. Hoffman, 2013).

Researchers have questioned whether there are distinctive differences in personality types between athletes and non-athlete. Many studies have investigated this claim by comparing athletes from individual sports and team sports (Saeid Rezaei Talyabee et al., 2013), contact athletes and no contact athletes (Stuart J. Mckelvie et al., 2003), endurance sport athletes (Egloff & Gruhn, 1996) and athletes that are male and female (Malinauskas et al., 2014) with non-athletes. Researchers have noted some differences between athletes and non-athletes.

Many studies have investigated whether athletes of different sports vary in personality. In one study, researchers compared individual sport athletes’ personalities and team sport athletes’ personalities. Findings demonstrated that individual sport athletes were significantly different than team sport athletes on extraversion, openness to experience and conscientiousness (Gasem Ilyasi & Mir Hamid Salehian, 2011). Furthermore, individual sport athletes reflected higher scores on all these factors (i.e., extraversion, openness to experience and conscientiousness). Other researchers have studied the differences between individual sport and team sport athletes and have found significant differences but have failed to produce similar results (F. Behzad, 2012; Peterson et al., 1967). By identifying the personality traits of the athletes, it is possible to identify the own coping mechanisms to reduce CSA.

### 2.2.5. Importance of Personality based Coping Mechanisms

Coping mechanisms are essential for athletes to manage stress, anxiety, and competitive pressure. Research indicates that personality traits significantly influence the selection and effectiveness of coping mechanisms (Kaiseler & Polman, 2012).In combat sports, where athletes face intense physical and psychological challenges, personality based coping mechanisms play a crucial role in regulating emotions, maintaining focus, and optimizing performance (Nicholls & Polman, 2007).

Longitudinal studies of subjective well-being show that some individuals consistently see life more positively and that these differences can be explained by dispositional traits

(Leandro & Castillo, 2010). In short, it is believed that traits can affect the manner in which individuals experience stressors (Kammeyer-Mueller et al., 2009).

Research presented a model in which a script to help systematize the study of the relationships between the stress processes and the coping strategies with personality dimensions is suggested. These authors state that personality may influence the stress process in three ways: first, in the exposure to the stressor, second, in the reactivity to the stressor, and finally, in both. Similarly, an individual's personality may influence the reactivity to the stressor, thus resulting in the choice of the coping method, the degree of effectiveness of the chosen coping strategy, or both (Leandro & Castillo, 2010).

### 2.2.6. Personality Traits and Preferred Coping Mechanisms

##### 2.2.6.1. Conscientiousness and Problem-Focused Coping

Conscientious athletes exhibit high levels of discipline, perseverance, and self-regulation, making them more likely to engage in problem-focused coping (Kaiseler & Polman, 2012). These athletes manage stress by setting performance goals, developing strategies, and maintaining structured routines (Nicholls & Polman, 2007). Problem-focused coping is particularly effective in combat sports, where strategic preparation and adaptability are critical (Ziv, 2013).

##### 2.2.6.2. Extraversion and Emotion-Focused Coping

Extraversion is associated with emotion-focused coping, which includes seeking social support, positive self-talk, and using humor to reduce stress (Malkoç, 2011). Extraverted athletes often perform better in high-pressure situations due to their ability to regulate emotions through interpersonal interactions (Kaiseler et al., 2013).In combat sports, extraverted athletes may benefit from team support, coaching feedback, and external motivation to enhance performance.

##### 2.2.6.3. Neuroticism and Maladaptive Coping

Neurotic athletes tend to experience higher levels of competitive anxiety and are more likely to use avoidance coping mechanisms, such as denial and disengagement. Avoidance coping has been linked to increased stress and reduced performance in combat sports (Woodman, Tim, et al., 2003). Athletes with high neuroticism may require psychological interventions, such as mindfulness training, to enhance emotional stability and resilience (Birrer & Morgan, 2010).

##### 2.2.6.4. Openness and Adaptive Coping

Openness to experience is associated with cognitive flexibility and adaptability, allowing athletes to experiment with different coping strategies (Malkoç, 2011). Combat athletes high in openness tend to use cognitive restructuring, visualization, and mindfulness techniques to manage stress (Ziv, 2013).

##### 2.2.6.5 Agreeableness and Social Coping

Agreeable athletes are more likely to seek social support and rely on teammates, coaches, and family for emotional regulation (Kaiseler et al., 2009). However, in highly competitive individual sports like combat sports, excessive reliance on external support may hinder self-reliance and decision-making (Barley & Harms, 2021).

### 2.2.7. Disadvantages of Athletes Not Knowing Their Own Coping Mechanisms to Reduce Competitive State Anxiety

Athletes who are unaware of their coping mechanisms may struggle to manage competitive state anxiety effectively, leading to impaired performance. According to (Lew Hardy et al., 2018), excessive cognitive and somatic anxiety can disrupt focus, coordination, and decision-making. When athletes do not recognize their anxiety responses, they may experience performance deterioration, particularly in high-stakes situations where psychological resilience is crucial.

Without proper coping mechanisms, prolonged exposure to competitive state anxiety can contribute to burnout. Burnout, characterized by emotional exhaustion, devaluation of sport, and reduced personal accomplishment, is more prevalent in athletes who lack selfawareness of their stress-coping techniques (Gustafsson et al., 2011). Athletes who fail to regulate anxiety may also experience mental fatigue, reducing motivation and enjoyment in sports.

Athletes unaware of their coping mechanisms may resort to avoidance strategies, such as ignoring stressors or withdrawing from competition, which can be counterproductive. Research suggests that avoidance coping often leads to short-term relief but fails to address the underlying anxiety, resulting in long-term psychological distress (Krohne & Hock, 1993). In some cases, athletes may develop maladaptive behaviours such as excessive aggression, emotional outbursts, or substance use to cope with competitionrelated anxiety(Bhadauriya & Tripathi, 2018).

Competitive sports require athletes to develop mental toughness, which involves confidence, resilience, and emotional regulation. When athletes do not recognize or utilize effective coping mechanisms, they may experience reduced self-confidence, leading to hesitation and fear of failure (Jones et al., 2002). Over time, a lack of confidence can create a self-fulfilling cycle where anxiety continues to escalate, further impairing performance and well-being.

Psychological stress and anxiety are linked to delayed physical recovery and increased injury risk. Research indicates that high anxiety levels can impair neuromuscular control, increasing susceptibility to injuries in combat sports. Athletes who do not understand how to manage their anxiety may also struggle with post-injury psychological recovery, leading to longer rehabilitation times and potential career setbacks (Ivarsson et al., 2017).

### 2.2.8. New Trends for Reduce Competitive State Anxiety in Athletes

Recent advancements in sport psychology have introduced innovative coping mechanisms aimed at reducing CSA among athletes. These contemporary strategies focus on mental flexibility, emotional openness, and resilience training, marking a departure from traditional approaches that emphasized mere endurance of anxiety.

The traditional notion of "pushing through pain" is being revaluated in favour of fostering mental flexibility and self-awareness. Sports psychologist Dr. Jim Taylor introduces the concept of "prime confidence," where athletes balance resilience with adaptability, leading to healthier competition and better anxiety management. This shift encourages athletes to focus on personal growth and satisfaction rather than solely on winning, thereby reducing CSA (Megan Tady, 2024). Modern athletes are increasingly encouraged to acknowledge and address their mental health challenges openly. NBA star DeMar DeRozan's public discussion of his battle with depression has sparked a broader conversation about mental health in sports, encouraging athletes to seek support and not suppress emotions (Rachel Murphy, 2025) This shift towards emotional openness helps in reducing CSA by normalizing mental health struggles and promoting supportive environments. Learning to confront and manage failure is now considered an essential objective for top athletes. Sports psychologist Denis Hauw emphasizes the importance of resilience training, suggesting that recognizing and confronting failure can transform it into a source of future success (Patricia Jolly, 2024). By developing rational and emotional coping mechanisms, athletes can better handle setbacks, thereby reducing anxiety associated with competition. Music is utilized as a valuable strategy to help athletes manage arousal levels, thereby influencing performance outcomes. Sedative music can mitigate somatic state anxiety, while stimulating music can elevate arousal levels to an optimal state. Listening to music influences arousal levels through the activation of the prefrontal cortex, directly affecting the emotional state of an individual. Athletes often listen to music to prepare for events, as it can shift their attention inward, preventing external distractions that could lead to higher arousal and negatively impact performance (Song et al., 2024).

### 2.2.9. Summary

While extensive research has examined CSA and coping mechanisms in sports, there remains a significant gap in understanding the mediating role of personality traits in combat sports athletes. Most existing studies have primarily focused on general athlete populations or team sports, with limited research specifically investigating how personality traits influence CSA and coping in combat sports athletes. Given the individualistic nature of combat sports, where athletes face direct physical and psychological confrontations, their coping mechanisms and anxiety responses may differ from those in other sports disciplines and also athlete to athlete.

Furthermore, the majority of studies on CSA and coping mechanisms have been conducted in western contexts (Nicholls & Polman, 2007). Cultural differences play a crucial role in sports psychology, influencing how athletes perceive stress and anxiety, regulate emotions, and utilize coping mechanisms. Training environments, coaching philosophies, and societal attitudes toward competition and mental toughness vary significantly across cultures, which may affect the personality traits, CSA, and coping mechanisms. In Sri Lanka, where combat sports are growing in popularity, there is a lack of empirical research on the psychological aspects of athlete performance, particularly concerning personality traits as a mediating factor in competitive state anxiety management. Given these gaps, this study aims to provide novel insights by investigating the mediating role of personality traits in the influence of CSA and coping mechanisms in Sri Lankan combat sports athletes. By addressing this unexplored area, this study aims to contribute to a more comprehensive understanding of sports psychology. Identifying these relationships can help sports psychologists and coaches design tailored mental training programs that improve athletes' coping mechanisms and overall performance.

Given the interrelationship between personality traits, CSA, and coping mechanisms, it is essential to explore. While previous studies have quantitatively examined these constructs independently, there is a gap in understanding athletes’ personal experiences and perceptions in managing CSA. By exploring this quantitatively and qualitatively, this study aims to provide deeper insights into how personality influences CSA and the coping mechanics combat sports athletes employ to regulate their emotional states. This study first identified athletes' personality traits, followed by an assessment of their CSA levels using quantitative method. Subsequently, it explores the own coping mechanisms athletes use to manage their CSA. Through qualitative interviews.

# CHAPTER Ⅲ

# MATERIALS AND METHODOLOGY

## 3.1. Introduction

In this chapter, the procedures and methods are described used to conduct the study. Study area, study population, sample selection, sample technique, data collection methods, data analysis, software tools, research design, materials, and ethical considerations discussed clearly.

**Phase Procedure Product**

Purposive sampling method (n=40) Numeric data

Quantitative Data

Analysis

Case

Selection

Qualitative Data

Collection

Qualitative Data

Analysis

Interpretation

of Entire

A

nalysis

Qua

ntitative

Data

Collection

Big five personality test

Competitive state anxiety inventory– 2

Frequencies Descriptive

SPSS software statistics (mean,

SD, Min, Max)

Purposively selected

the participants for (n=10)

thematic analysis (n=10)

Individual in-depth

semi-structured Text data (interview interviews transcripts)

Coping mechanisms interview

Themes and codes

Coding and thematic

analysis (manual) Visual data display

Explaining the meaning of Discussion quantitative results

Recommendations fo Explaining the meaning of future research

themes and codes

Figure 3.1: Explanatory Sequential Research Design

## 3.2. Research Problem

The primary aim of this study is to explore coping mechanisms in managing CSA among female combat sports athletes, with personality traits as a mediating factor. Combat sports athletes must maintain competitive state anxiety, focus, and emotional control to succeed in high-pressure environments. However, many athletes struggle with CSA, which can negatively impact concentration, aggression, and overall performance. While coping mechanisms influence how athletes experience and respond to CSA, and also personality traits mediate this remain unexplored. Without a clear understanding of these relationships, coaches, trainers, and sports psychologists may struggle to implement effective mental training programs tailored to individual athletes. This study seeks to address the following problems, how do coping mechanisms influence competitive state anxiety, and to what extent do personality traits mediate and how do psychological coping mechanisms vary among athletes with different personality profiles?

To ensure the validity of the research methodology, a pilot test was conducted with six combat sports athletes. The pilot test provided preliminary insights into the applicability of questionnaires and interviews for data collection and confirmed their suitability for the study. The pilot test results indicated that athletes were able to complete the questionnaires without confusion, confirming their feasibility for the main study. Additionally, responses showed variance in coping mechanisms and CSA levels, supporting the need for further exploration through in-depth qualitative methods. The pilot test interviews revealed that athletes were willing to discuss their psychological experiences and provided rich qualitative data. This confirms that qualitative interviews are an effective complement to the questionnaires.

The results highlighted distinct variations in how athletes manage CSA based on their personality profiles, reinforcing the need for an individualized approach to studying these interactions. The findings from the pilot test also confirmed that the chosen psychological scales effectively identified personality traits and CSA types, justifying their use in the main study. The combination of quantitative data collection through validated questionnaires, followed by qualitative exploration through semi-structured interviews, ensures methodological rigor while allowing for a deeper investigation of the research questions. Given the complexity of psychological variables and their interactions, a mixed-method approach is necessary to obtain a comprehensive understanding of how athletes perceive and respond to CSA under competitive conditions. By employing this approach, the study aims to explore the coping mechanisms for manage CSA based on different personality traits in combat sports athletes in Sri Lanka, that contribute to the development of tailored mental training programs for athletes.

## 3.3. Research Design

This study adopts an explanatory sequential research design, a type of mixed-method approach that integrates both quantitative and qualitative data collection and analysis. The study is conducted in two distinct phases, beginning with a quantitative assessment to identify key psychological variables of personality traits and CSA types, followed by a qualitative phase to explore athletes' coping mechanisms in depth. This approach allows for a more comprehensive understanding of how coping mechanisms influence CSA and the mediating role of personality traits among combat sports athletes.

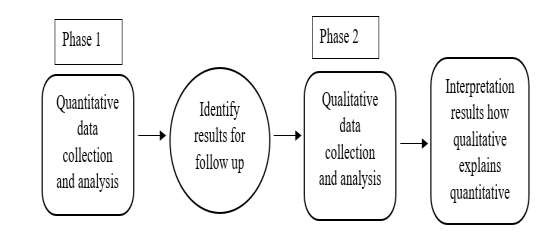


Figure 3.2: Explanatory Sequential Research Design

## 3.4. Study Area

This study focuses on CSA in selected combat sports athletes, specifically those competing in karate, wrestling, judo, and taekwondo. Combat sports are characterized by intense physical and psychological demands, requiring athletes to perform under highpressure situations where success depends not only on technical and physical skills but also on mental resilience. Given the unpredictable nature of these sports, athletes often experience CSA, which can influence their concentration, emotional control, decisionmaking, and overall performance. The study examines CSA within the context of Sri Lankan combat sports athletes, an area that remains underexplored compared to Western research. By investigating CSA across four combat sports disciplines karate, wrestling, judo, and taekwondo this study aims to identify different personality profiles and the role of coping mechanisms in regulating CSA.

## 3.5. Study Population

The study population consists of national level female combat sports athletes in Sri Lanka who compete in karate, wrestling, judo, and taekwondo. Given the intense physical and mental demands of combat sports, female athletes may experience unique psychological challenges, making it essential to explore how coping mechanisms and personality traits influence their ability to manage CSA. This study focuses on female athletes aged 20 to 25 competing at the national level, as they represent a critical stage in athletic development where psychological resilience is crucial for performance optimization and long-term career success.

## 3.6. Study Sample

The study sample consists of 10 national level female athletes competing in karate, wrestling, judo, and taekwondo in Sri Lanka. These athletes regularly participate in highstakes competitive environments, making them ideal subjects for exploring how personality traits, CSA, and coping mechanisms interact to influence performance under pressure. By selecting athletes from multiple combat sports disciplines, the study ensures a diverse range of experiences, allowing for a more comprehensive understanding of how different sport specific demands shape psychological responses to competition. Each combat sport presents unique physical, tactical, and psychological challenges, which may influence the way athletes experience and manage CSA. The selection of 10 athletes allows for a focused yet meaningful exploration of psychological factors while maintaining feasibility for in-depth qualitative analysis. This targeted sampling approach ensures that the study captures both individual differences and sport-specific psychological patterns, contributing to a nuanced understanding of how Sri Lankan national level female combat sports athletes cope with CSA.

## 3.7. Sample Selection Plan

The selection of participants occurs in two phases:

Phase 1: Quantitative Sampling

A larger initial pool of national-level athletes is considered (n=40). Participants completed questionnaires assessing personality traits and CSA types. The data collected is analyzed to classify athletes based on their personality traits and CSA types.

Table 3.1: Sample Selection Plan

|  |  |
| --- | --- |
| **Sport** | **Sample size** |
| Karate | 10 |
| Wrestling | 10 |
| Judo | 10 |
| Taekwondo | 10 |
| **Total** | **40** |

Phase 2: Qualitative Sampling

From the initial pool, 10 athletes are selected using criterion-based sampling to ensure representation of different personality profiles and combat sports disciplines. These athletes participate in semi-structured interviews to explore their coping experiences in depth. This step ensures that the qualitative phase provides rich, diverse insights into how different personality traits influence coping with CSA.

Table 3.2: Sample Selection Criteria for Qualitative Part

|  |  |  |
| --- | --- | --- |
| **Personality trait** | **CSA type** | **Sample size** |
| Extraversion | Cognitive | 02 |
| Agreeableness | Somatic | 02 |
| Consciousness | Cognitive | 02 |
| Neuroticism | Somatic | 02 |
| Openness to experience | Somatic | 02 |
| **Total** |  | **10** |

## 3.8. Sampling Technique

The study employs a purposive sampling technique, specifically criterion-based purposive sampling. This non-probability sampling method is used to deliberately select participants who meet specific criteria relevant to the research objectives.

### 3.8.1. Inclusion Criteria

* Athletes must have competed at the national level in Sri Lanka in one of the following combat sports: karate, wrestling, boxing, and taekwondo.
* Only female athletes are considered for this study.
* Participants must be within 20 – 25 age range.
* Athletes must have competed in official tournaments within the last two years, ensuring their experiences with CSA are current and relevant.
* Athletes must provide informed consent and be willing to complete questionnaires and interviews related to CSA, personality traits, and coping mechanisms.
* Participants must be able to communicate effectively in Sinhala or English, as the study involves self-reported questionnaires and in-depth qualitative interviews.

### 3.8.2. Exclusion Criteria

* Individuals diagnosed with severe mental health conditions (e.g., clinical anxiety disorders, depression, post-traumatic stress disorder) that could affect their responses to CSA assessments.
* Athletes who were unable or were unwilling to provide informed consent for participation are excluded from upholding ethical standards.
* Individuals having recent injuries were excluded to avoid interference with the results.

## 3.9. Data Collection Methods

The data collection was followed by three (03) major phases.

### 3.9.1. Big Five Personality Traits test

The big five personality traits test is one of the most widely used psychological assessments for measuring personality based on the Five-Factor Model (FFM), which includes Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. This test assesses an individual's personality traits through a series of selfreport questions, providing insights into their behavioral tendencies, emotional stability, and interpersonal interactions. The Big Five Personality Test consists of 50 items, with 10 items dedicated to assessing each of the five major personality dimensions. Athletes rate themselves on a 5-point Likert scale, ranging from “Strongly disagree” (1) to “Strongly agree” (5). (Lewis Goldberg, 1990).

### 3.9.2. Competitive State Anxiety Inventory-2

The Competitive State Anxiety Inventory-2 (CSAI-2), is one of the most widely used psychological assessments for measuring competitive state anxiety in athletes. This test is based on the multidimensional anxiety theory (MAT) and evaluates how anxiety affects performance by distinguishing between three key components: cognitive anxiety, somatic anxiety, and self-confidence.

The CSAI-2 consists of 27 items, with 9 items assessing each of the three components.

Athletes rate their anxiety levels on a 4-point likert scale, ranging from “Not at all” (1) to

“Very much so” (4). The results help sports psychologists, coaches, and athletes understand how anxiety influences performance and develop mental training techniques such as relaxation, visualization, and self-talk to optimize competitive readiness (Marten, 1990).

### 3.9.3. Coping Mechanisms Interview Questionnaire

The Coping Mechanism Interview Questionnaire was designed to explore coping mechanisms in managing CSA selected among combat sports athletes in Sri Lanka. The interview is structured into four main sections, each targeting different aspects of the athlete's experience and psychological profile. The interview questions designed based on the coping inventory for stressful situations (CISS) (Endler & Parker, 1990) framework while allowing flexibility to capture unique, sport-specific coping mechanisms.

The first section focuses on gathering general background information. Participants are asked to introduce themselves by stating their sport, competitive level, and years of experience. Additionally, they are encouraged to reflect on how they usually feel before a competition (e.g., excited, nervous, focused) and whether they believe their personality plays a role in how they handle pressure during competitions.

The second section delves into the athletes’ personal experiences with CSA. Questions explore the main sources of anxiety, such as fear of losing, external pressure, or self-doubt. Athletes are also asked to describe how anxiety affects their physical and mental states during fights and to share a specific experience where anxiety negatively impacted their performance, along with the coping strategy they used in response.

The third section examines sport-specific coping mechanisms, using the CISS framework, which categorizes coping into task-oriented, emotion-oriented, and avoidance-oriented strategies. Task-oriented coping focuses on performance and strategic actions, including adjusting game plans, engaging in pre-fight routines, mental preparation during training, and setting short-term goals. Emotion-oriented coping addresses the regulation of internal emotional states, such as using self-talk, managing frustration or fear, practicing breathing techniques, and seeking social support. Avoidance-oriented coping refers to distraction and emotional disengagement methods, such as listening to music, avoiding thoughts about the match, or relying on superstitions and rituals.

The final section explores the relationship between personality traits, anxiety, and coping. Participants are asked to reflect on how their personality influences their coping styles, whether their coping strategies have evolved over time, and what factors contributed to those changes. Lastly, they are invited to offer advice to younger athletes who may be struggling with competitive anxiety.

Data collection for this study was guided by three major key themes: problem-focused, emotion-focused, and avoidance-focused coping mechanisms. These themes were used as a conceptual framework to organize the semi-structured interview guide, allowing for detailed exploration of how athletes manage CSA. Participants were asked to share personal experiences and coping strategies related to each theme, which allowed for the collection of rich, qualitative data.

## 3.10. Validity and Reliability

A pilot test was conducted prior to the main data collection to ensure that the data collection procedures were functioning correctly and to identify any potential issues in the research process. The pilot test involved a small sample of combat sports athletes who were not part of the main study. The primary objective was to validate the clarity, relevance, and flow of the instruments used, including the big five personality test, the CSA Test, and the coping mechanism interview questionnaire. Feedback from participants helped refine the interview questions for better clarity and depth. The pilot also assessed the feasibility of the proposed methodology, the time required for completion. Overall, the pilot test confirmed that the data collection tools and procedures were appropriate to enhance the efficiency and effectiveness of the main study. And also, all measures regarding the study were developed based on the previous literatures.

## 3.11. Data Analysis

This study adopts a mixed-methods design, combining both quantitative and qualitative data to explore the coping mechanisms in managing CSA among combat sports athletes in Sri Lanka, considering the influence of personality traits. The analyzed data were presented via tables and figures in an organized and understandable format in CHAPTER IV.

### 3.11.1. Quantitative Data Analysis

Quantitative data will be gathered through standardized instruments including the Big Five Personality Test (50 items) and the Competitive State Anxiety Test. Responses from the Big Five test helped categorize participants based on dominant personality traits (e.g., high neuroticism, high conscientiousness). CSA test scores provided a measure of each athlete’s type of competitive state anxiety. The data will be analyzed using SPSS (Statistical Package for the Social Sciences). Descriptive statistics (mean, standard deviation, frequency) summarized personality traits and anxiety types.

### 3.11.2. Qualitative Data Analysis

Following the quantitative phase, 10 athletes representing a diverse range of personality traits were selected for in-depth interviews using the Coping Mechanism Interview Questionnaire. These interviews aimed to explore coping mechanisms categorized into task-oriented, emotion-oriented, and avoidance-oriented styles, which athletes use to manage CSA. The qualitative data were transcribed and analyzed manually using an inductive thematic analysis approach, as outlined by (Braun & Clarke, 2006). This method was employed to identify recurring patterns, themes, and coping behaviors associated with athletes’ personality profiles and their experiences of anxiety. Coding was both theorydriven, guided by the Coping Inventory for Stressful Situations (CISS) model (Endler & Parker, 1990), and data-driven, allowing for the emergence of novel themes beyond the existing theoretical framework.

To enhance the depth and validity of the findings, triangulation was employed by integrating quantitative data on personality and anxiety profiles with the qualitative insights on coping strategies. This mixed-methods approach provided a comprehensive understanding of how specific personality traits influence the coping mechanisms athletes adopt in response to CSA.

## 3.12. Apparatus/ Equipment and Instruments

* Informed consent form (Annexure – A)
* Demographic information sheets (Annexure – B)
* Big five personality test questionnaire (Lewis Goldberg, 1990) (Annexure – C)
* Competitive state anxiety inventory– 2 (Martens et al., 1990)(Annexure – D)
* Coping mechanisms interview (Endler & Parker, 1990)(Annexure – E)

## 3.13. Software Tools

IBM SPSS Statistics 2025: SPSS is a powerful software used for quantitative data analysis. It is used in this study to analyze responses from the big five personality test and the CSA test. It helps to calculation of descriptive statistics, such as means and standard deviations.

## 3.14. Ethical Consideration

This study adheres to strict ethical guidelines to ensure the protection, dignity, and rights of all participants. Prior to data collection, ethical approval was obtained from the relevant academic or institutional ethics review committee. All participants were provided with a detailed information sheet explaining the purpose, procedures, and potential risks and benefits of the study.

Informed consent was obtained from each participant before their involvement in the research. Participants were clearly informed that their participation was voluntary, and that they had the right to withdraw from the study at any time without any negative consequences. For the interview phase, participants were also asked for consent to record the sessions for transcription and analysis purposes.

To ensure confidentiality and anonymity, all personal information was kept secure and used solely for research purposes. Identifiable data were either anonymized or coded to protect participants’ identities. Data collected through questionnaires and interviews were stored securely, with access restricted to the research team. Finally, all data will be used strictly for academic and research purposes and will be disposed of responsibly after a designated period, in accordance with data protection guidelines.

# CHAPTER Ⅳ

# RESULTS AND DISCUSSION

## 4.1. Results

### 4.1.1. Introduction

This chapter presents the findings of the study, which aimed to explore the coping mechanisms in managing CSA among selected combat sports athletes in Sri Lanka, with personality traits as potential mediators. A mixed-methods approach was used, consisting of quantitative analysis of personality traits and anxiety scores, followed by a qualitative thematic analysis of coping mechanisms based on athletes’ personality profiles.

### 4.1.2. Quantitative Analysis

##### 4.1.2.1. Participant Profile

A total of 40 female combat sport athletes, aged 20–25 years, participated in the study. The athletes were from disciplines such as judo, taekwondo, wrestling and karate. Each participant completed assessments measuring their personality traits (using the big five test) and CSA test (divided into cognitive anxiety, somatic anxiety, and self-confidence).

The figure 4.3 presents the distribution of participants across five identified personality traits, based on a total sample size of 40 individuals. The personality traits assessed include Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. The highest number of participants (n = 12) exhibited traits related to Conscientiousness, suggesting that this was the most commonly identified personality profile within the sample. This was followed by Openness to Experience (n = 9) and Extraversion (n = 8). Agreeableness was identified in 7 participants, while Neuroticism had the lowest representation, with only 4 individuals displaying this trait. These findings provide insight into the predominant personality tendencies among the participants.

Figure

4.

3

:

Number of Different Personality Profiles

0

2

4

6

8

10

12

14

Extraversion

Agreeableness

Conscientiousness

Neuroticism

Openness

Numeber of Athletes

Personality Traits

Distribution of Personality Traits (n=40)

##### 4.1.2.2. Descriptive Statistics for Personality Traits and Competitive State Anxiety

Table 4.3 presents the mean scores, standard deviations (SD), and score ranges (Min– Max) for cognitive anxiety, somatic anxiety, and self-confidence across different personality traits among combat sports athletes. Agreeable athletes seem to experience higher somatic than cognitive anxiety, but maintain relatively strong self-confidence. Conscientious athletes tend to worry more (high cognitive anxiety) but show high selfconfidence and minimal physical anxiety symptoms, possibly due to their structured, goaloriented mindset. Extraverted athletes experience cognitive anxiety but are less affected physically. Their self-confidence is average, perhaps relying more on social reassurance than internal belief. Neurotic athletes are highly physically affected by anxiety (somatic anxiety) making them particularly vulnerable in competitive situations. Athletes high in openness experience significant somatic anxiety but maintain a balanced level of cognitive anxiety and self-confidence. They may be more aware and sensitive to experiences but also adaptable.

Table 4.3: Descriptive Statistics of Personality Traits and Competitive State Anxiety

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Personality Trait** | **N** | **Variable** | **Mean ± SD** | **Min** | **Max** |
| Agreeableness | 7 | Cognitive Anxiety | 20.29 ± 1.60 | 19 | 23 |
| Somatic Anxiety | 28.00 ± 1.00 | 26 | 29 |
| Self Confidence | 24.14 ± 1.57 | 22 | 27 |
| Conscientiousness | 12 | Cognitive Anxiety | 29.17 ± 1.01 | 28 | 30 |
| Somatic Anxiety | 19.67 ± 1.12 | 18 | 21 |
| Self Confidence | 26.50 ± 1.51 | 24 | 29 |
| Extraversion | 8 | Cognitive Anxiety | 29.38 ± 1.18 | 28 | 31 |
| Somatic Anxiety | 16.38 ± 1.18 | 15 | 19 |
| Self Confidence | 22.50 ± 2.07 | 20 | 26 |
| Neuroticism | 4 | Cognitive Anxiety | 20.00 ± 1.00 | 19 | 21 |
| Somatic Anxiety | 30.00 ± 0.82 | 29 | 31 |
| Self Confidence | 20.50 ± 2.52 | 18 | 23 |
| Openness | 9 | Cognitive Anxiety | 21.89 ± 1.64 | 20 | 24 |
| Somatic Anxiety | 27.44 ± 1.13 | 26 | 29 |

Self Confidence 23.44 ± 1.33 22 27

Figure 4.4 provides a summary of mean scores for each personality trait group across the three dimensions of anxiety. Clustered bar chart to compare the mean scores of cognitive anxiety, somatic anxiety, and self-confidence across the different personality traits.

0

5

10

15

20

25

30

35

Agreeableness

Conscientiousness

Extraversion

Neuroticism

Openness

Mean Score

Personality Trait

Mean Score of Anxiety

Cognitive Anxiety

Self Confidence

Somatic Anxiety

Figure 4.4: Mean Scores of Cognitive Anxiety, Somatic Anxiety, and Self Confidence

### 4.1.3. Thematic Analysis

The thematic analysis was guided by the research question: How do coping mechanisms manage competitive state anxiety, and to what extent do personality traits mediate? Data were coded and grouped by the big five personality dimensions. Each personality trait is discussed with its dominant anxiety type and common coping mechanisms, supported by quotes and thematic codes.

##### 4.1.3.1. Personality Trait, Competitive State Anxiety and Coping Mechanisms

###### 4.1.3.1.1. Neuroticism and Somatic Anxiety

The data strongly indicated that athletes with high levels of neuroticism experienced greater somatic anxiety. Many of these athletes reported physical symptoms such as muscle tension, rapid heartbeat, and a feeling of “butterflies” before competition. For example, one respondent noted that “the intensity of my nervousness often manifests as uncontrollable shaking, which interferes with my concentration.” The coping mechanics employed by these athletes tended to be emotion-focused (e.g., mindfulness training, selftalk) and avoidance-focused (e.g., reliance on superstitions).

Thematic codes emerged that linked neuroticism with:

* Heightened Sensitivity: A predisposition toward experiencing intense physical anxiety.
* Inconsistent Concentration: Difficulty in maintaining focus during high-pressure moments.
* Aggressive Outbursts: In some cases, misdirected aggression stemming from underlying anxiety.

These findings are summarized in Table 4.4:

Table 4.4: Thematic Code Table – Neuroticism and Somatic Anxiety

|  |  |  |  |
| --- | --- | --- | --- |
| **Code**  **ID** | **Theme Description** | **Supporting Data Excerpts** | **Associated Coping**  **Strategies** |
| **NSA-**  **01** | Heightened somatic reactivity in response to stress | “My heart races uncontrollably before a match.” | Progressive muscle relaxation; deep breathing |
| **NSA-**  **02** | Difficulty maintaining concentration under pressure | “I often lose focus when my anxiety peaks.” | Grounding techniques; mindfulness training |
| **NSA-**  **03** | Reliance on superstitious behaviours as a coping mechanism | “I tend to stick to certain rituals that I believe ward off anxiety.” | Over-reliance on superstitions; distraction techniques |
| **NSA-**  **04** | Emotional dysregulation and aggressive reactions | “Sometimes, my frustration turns into aggression during competitions.” | Self-talk; seeking coaching advice |
| **NSA-**  **05** | Variability in physical responses to competitive stress | “There are days when I barely feel any anxiety, and others when it overwhelms me.” | Structured routines; controlled breathing techniques |

###### 4.1.3.1.2. Conscientiousness and Cognitive Anxiety

Athletes with high conscientiousness scores generally exhibited lower cognitive anxiety. Their responses indicated a preference for detailed training plans, strategy refinement, and self-monitoring practices. The presence of a structured routine and the use of cognitive restructuring techniques were common among these athletes. However, there were instances where excessive focus on detail led to over-analysis and even heightened anxiety if performance did not meet self-imposed standards.

Thematic codes emerged that linked conscientiousnesswith:

* Structured Planning: Detailed training regimens that help reduce uncertainty.
* Self-Monitoring: Regular self-assessment and journaling to track performance.
* Cognitive Overload: A potential downside when perfectionism leads to rumination over mistakes.

These findings are summarized in Table 4.5:

Table 4.5: Thematic Code Table – Conscientiousness and Cognitive Anxiety

|  |  |  |  |
| --- | --- | --- | --- |
| **Code**  **ID** | **Theme Description** | **Supporting Data Excerpts** | **Associated Coping**  **Strategies** |
| **CCA-**  **01** | Adoption of detailed training plans to mitigate anxiety | “I plan every aspect of my training and competition to avoid surprises.” | Detailed training plans; performance goal setting |
| **CCA-**  **02** | Use of selfmonitoring and journaling techniques | “Journaling helps me understand my emotional patterns and adjust my strategy.” | Journaling emotions; cognitive restructuring |
| **CCA-**  **03** | Tendency towards cognitive overanalysis | “Sometimes, I get too caught up in planning and end up overthinking during a match.” | Strategy refinement; controlled breathing techniques |
| **CCA-**  **04** | Resilience through structured problemsolving | “A well-laid plan gives me confidence even when the unexpected happens.” | Setting performance goals; mental rehearsal practices |
| **CCA-**  **05** | Effective integration of cognitive and behavioural strategies | “By blending my thoughts with action plans, I manage to stay focused.” | Video analysis of past performances; cognitive rehearsal |

###### 4.1.3.1.3. Extraversion and Cognitive Anxiety

Athletes who score high on extraversion tend to display robust social support networks and are more likely to engage in team discussions and seek mentor advice. These social interactions have been linked with reduced levels of cognitive anxiety. However, the same traits may sometimes lead to over-socialization, which can interfere with individual concentration and result in cognitive lapses during competition.

Thematic codes emerged that linked extraversionwith:

* Social Engagement: Utilizing team discussions and mentor support as buffers against anxiety.
* Dual-Edged Sword: While social support can lower anxiety, excessive reliance on external input may detract from individual concentration.
* Optimistic Outlook: Higher self-confidence and reduced cognitive anxiety in extraverted athletes.

These findings are summarized in Table 4.6:

Table 4.6: Thematic Code Table – Extraversion and Cognitive Anxiety

|  |  |  |  |
| --- | --- | --- | --- |
| **Code**  **ID** | **Theme Description** | **Supporting Data Excerpts** | **Associated Coping**  **Strategies** |
| **ECSA-**  **01** | Utilization of social support networks to reduce anxiety | “Talking with my team and mentors helps me keep a positive outlook.” | Team discussions; seeking mentor support |
| **ECSA-**  **02** | Risk of oversocialization affecting individual focus | “Sometimes I get too caught up in group dynamics and lose track of my own focus.” | Controlled social interactions; balancing solitude |
| **ECSA-**  **03** | Enhanced selfconfidence through external validation | “Receiving encouragement from my peers boosts my self-belief.” | Positive affirmations; collaborative problem-solving |
| **ECSA-**  **04** | Mitigation of cognitive anxiety through shared experiences | “Sharing experiences in a group setting often lightens the mental load.” | Humour; supportive peer interactions |
| **ECSA-**  **05** | Balancing external input with personal concentration | “I try to use advice as a tool rather than a crutch during competitions.” | Listening to music for motivation; individual focus  drills |

###### 4.1.3.1.4. Agreeableness and Somatic Anxiety

The data on agreeableness indicate that athletes with higher levels of this trait typically adopt emotion-focused coping strategies. Their emphasis on supportive interactions and conflict avoidance helps them manage somatic anxiety, particularly in high-stress situations. However, the tendency to prioritize group harmony can sometimes lead to neglect of personal performance needs.

Thematic codes emerged that linked agreeablenesswith:

* Supportive Peer Interactions: Relying on emotional expression and collaborative problem-solving.
* Conflict Avoidance: An inclination to downplay personal anxiety to maintain team cohesion.
* Balanced Emotional Regulation: Use of positive affirmations and empathetic support from peers.

These findings are summarized in Table 4.7:

Table 4.7: Thematic Code Table – Agreeableness and Somatic Anxiety

|  |  |  |  |
| --- | --- | --- | --- |
| **Code**  **ID** | **Theme Description** | **Supporting Data**  **Excerpts** | **Associated Coping**  **Strategies** |
| **AEFC-**  **01** | Reliance on emotional support from peers | “Talking about my feelings with teammates helps me manage my  anxiety.” | Emotional expression; conflict avoidance |
| **AEFC-**  **02** | Tendency to suppress personal anxiety for group harmony | “I often put my anxiety aside to support others in my team.” | Supportive peer interactions; positive affirmations |
| **AEFC-**  **03** | Use of collaborative problem-solving to navigate stress | “Working together with my team on strategies makes the pressure easier.” | Collaborative problemsolving; taking advice from experienced athletes |
| **AEFC-**  **04** | Empathy-driven coping that prioritizes emotional well-being | “I rely on mutual encouragement to overcome stressful moments.” | Seeking mentor support; humour; emotional expression |
| **AEFC-**  **05** | Balancing self-care with team support | “I try to be aware of my own needs while also contributing to the team’s morale.” | Listening to music for motivation; conflict resolution strategies |

###### 4.1.3.1.5. Openness to Experience and Somatic Anxiety

Openness to experience is linked with an athlete’s willingness to try new training techniques and adopt creative coping strategies. Athletes high in openness are more likely to experiment with novel interventions such as visualization, creative expression, or alternative coaching methods to manage somatic anxiety. Yet, an over-reliance on switching focus too frequently can sometimes hinder the development of a consistent performance routine.

Thematic codes emerged that linked openness to experience with:

* Innovation in Coping: Embracing new techniques like visualization and creative expression.
* Adaptive Flexibility: Adjusting strategies based on situational demands.
* Potential for Over-Experimentation: Risk of insufficient focus due to frequent switching between techniques.

These findings are summarized in Table 4.8:

Table 4.8: Thematic Code Table – Openness to Experience and Somatic Anxiety

|  |  |  |  |
| --- | --- | --- | --- |
| **Code**  **ID** | **Theme Description** | **Supporting Data**  **Excerpts** | **Associated Coping**  **Strategies** |
| **O-**  **IC-01** | Adoption of innovative training techniques | “I like to try out new training methods that keep my mind engaged.” | Trying new training techniques; creative expression |
| **O-**  **IC-02** | Flexibility in coping strategies | “I am always open to exploring alternative coaching methods.” | Visualization; exploration of alternative strategies |
| **O-**  **IC-03** | Risk of over-switching coping methods | “Sometimes I change my focus too often, which confuses my routine.” | Switching focus; seeking diverse perspectives |
| **O-**  **IC-04** | Integration of diverse perspectives for enhanced performance | “Gaining different insights helps me stay prepared for unexpected challenges.” | Seeking diverse perspectives; experimentation |
| **O-**  **IC-05** | Balancing novelty with consistency | “It’s important to innovate without losing the stability of a routine.” | Creative expression; structured innovation |

###### 4.1.3.1.6. Integrated Thematic Code Metrix

The integrated matrix presented in Table 4.9 provides a comprehensive overview of the personality traits, anxiety dimensions, and coping mechanisms among female combat sport athletes. By organizing these variables into a single framework, the table allows for a quick yet meaningful interpretation of how personality influences both the type of anxiety experienced and the preferred coping mechanisms used to manage it.

Athletes high in neuroticism were primarily associated with somatic anxiety, which manifests through physical symptoms such as muscle tension, increased heart rate, and shaking. These individuals often relied on emotion-focused coping mechanisms, such as mindfulness and self-talk, to manage their symptoms. However, a secondary pattern of avoidance-focused mechanism, including reliance on superstitions, was also evident, which may limit the long-term effectiveness of their coping.

Athletes with high conscientiousness demonstrated a strong tendency toward cognitive anxiety. These individuals managed their anxiety through problem-focused coping mechanisms like detailed planning, journaling, and goal setting. Their structured routines provided a sense of control, although an excessive focus on perfectionism sometimes led to over-analysis and performance-related stress.

Athletes who scored high in extraversion also experienced cognitive anxiety, but they managed it through social-based coping mechanisms. Support from teammates, mentors, and peer discussions played a central role in boosting their self-confidence and reducing mental stress. However, there was also a risk of over-socialization, which could lead to a loss of individual concentration during competition.

Those high in agreeableness were more susceptible to somatic anxiety and favored emotion-focused mechanisms. They often prioritized group harmony and emotional support, which helped them manage anxiety in collaborative settings. Yet, their inclination to put team needs above their own could lead to the neglect of personal performance goals.

Lastly, athletes with high openness to experience also dealt primarily with somatic anxiety, but their coping was marked by creativity and adaptability. These athletes experimented with innovative techniques such as visualization, creative expression, and alternative training methods. While their flexibility was a strength, frequent switching between coping strategies sometimes disrupted the consistency needed for peak performance.

This thematic summary highlights the importance of individualized coping approaches based on personality profiles. Understanding these nuanced relationships allows coaches and sport psychologists to design targeted interventions that align with each athlete’s natural tendencies and emotional responses in competition.

Table 4.9: Summary of the Thematic Findings

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Personality Trait** | **Anxiety Dimension** | **Primary**  **Coping**  **Mechanism** | **Secondary Mechanism** | **Key Observations** |
| **Neuroticism** | Somatic  Anxiety | Progressive muscle relaxation | Mindfulness training | High physiological reactivity; frequent reliance  on rituals |
| **Conscientiousness** | Cognitive  Anxiety | Detailed training plans | Journaling emotions | Structured planning reduces overthinking; occasional rumination |
| **Extraversion** | Cognitive  Anxiety | Team  discussions | Mentor support | Strong social buffers; risk of oversocialization |
| **Agreeableness** | Somatic  Anxiety | Collaborative problemsolving | Emotional expression | Prioritizes group harmony; potential neglect of self-focused needs |

**Openness to** Somatic Innovative Creative Flexible and

**Experience** Anxiety training expression adaptive, though techniques sometimes

inconsistent

According to the three major key themes: problem-focused, emotion-focused, and avoidance-focused coping mechanisms used by athletes to manage CSA. Each of these main themes encompassed several sub-themes that offered deeper insights into the unique ways athletes cope with CSA. The following figure 04 presents a summary of the main themes and their associated sub-themes.

**Coping**

**Mechanisms**

**in Managing**

**CSA among**

**Combat**

**Sports**

**Athletes**

**Agreeableness**

**-**

**Somatic**

**Problem Focused**

Collaborative problem

-

solving

T

aking advice from experienced

athletes

**Emotional Focused**

Emotional expression (talking

about feelings)

P

ositive affirmations

S

upportive peer interactions

**Avoidance Focused**

Conflict avoidance

Ignoring own anxiety to

support others

**Conscientious**

**ness**

**-**

**Cognitive**

**Extroversion**

**-**

**Cognitive**

**Neuroticism**

**-**

**Somatic**

**Openness to**

**Experience**

**-**

**Somatic**

**Problem Focused**

Detailed training plans

Strategy refinement

Video analysis of past

performances

**Emotional Focused**

Journaling emotions

Controlled breathing

techniques

Mental rehearsal (Reappraisal

Practice, Restructuring)

**Avoidance Focused**

I

gnoring fatigue

**Problem Focused**

Team discussions

S

eeking mentor support

**Emotional Focused**

Social support

Humour

L

i

stening to

music for motivation

**Avoidance Focused**

Over

-

socialization

Avoiding solitary focus

**Problem Focused**

Structured routines

Seeking

coaching advice

Setting performance goals

**Emotional Focused**

Self

-

talk

Mindfulness training

Relaxation techniques (e.g., deep

breathing, meditation)

**Avoidance Focused**

Over

-

reliance on

superstitions

Using distraction (music,

games)

**Problem Focused**

Trying new training techniques

Exploring alternative coaching

methods

**Emotional Focused**

Visualization

Creative expression (e.g., music,

art)

See

king diverse perspectives

**Avoidance Focused**

Switching focus excessively

Ex

perimentation

Figure 4.5: Summary of the Key Findings

## 4.2. Discussion

The quantitative analysis begins with an extensive descriptive overview (Table 4.3) of the key variables measured in the study. The summary statistics including means, standard deviations, min, and max. The big five personality traits extraversion, agreeableness, conscientiousness, neuroticism, and openness are quantified alongside measures of competitive state anxiety (cognitive, somatic, and self-confidence). The descriptive statistics showed while combat sport athletes exhibit a broad range of personality scores, there are notable patterns. For example, conscientiousness scores are relatively high among the sample, suggesting that many athletes maintain structured routines. And also, neuroticism shows greater variability, which aligns with its established association with heightened stress responses in competitive environments.

### 4.2.1. Neuroticism as a Predictor of Somatic Anxiety

The results of this study identified neuroticism as a significant predictor of somatic anxiety among female combat sport athletes. Quantitative data showed that athletes with high neuroticism scores reported the highest levels of somatic anxiety (30.00 ± 0.82), indicating a strong link between this personality trait and physiological symptoms of competitive anxiety. The thematic analysis provided deeper insight into the nature and intensity of these experiences. Athletes high in neuroticism frequently described pronounced physiological reactions such as muscle tension, increased heart rate, shaking, and gastrointestinal discomfort before or during competition. For example, one athlete noted:

*“My heart races uncontrollably before a match.”* (Code: N-SA-01)

*“The intensity of my nervousness often manifests as uncontrollable shaking, which interferes with my concentration.”* (Code: N-SA-01)

These observations support existing literature, which suggests that neurotic individuals are predisposed to heightened physiological reactivity under pressure (Allen et al., 2013). Neuroticism is associated with low emotional stability and a tendency to perceive events as threatening, leading to elevated anxiety responses (McCrae & Costa, 1991).

A major observation was the link between neuroticism and inconsistent concentration.

Several respondents described moments of “deteriorating focus” coinciding with peaks in physiological anxiety. This finding aligns with previous research suggesting that neurotic individuals often struggle to maintain somatic clarity under pressure (Piepiora, 2024). In coping with these reactions, athletes in this group employed a combination of emotionfocused and avoidance-focused mechanisms. Emotion-focused methods such as mindfulness training and controlled breathing were commonly used to regulate bodily arousal. For example, one participant mentioned:

*“I often lose focus when my anxiety peaks.”* (Code: N-SA-02)

This aligns with research by (Folkman, 2013), who suggest that emotion-focused coping is useful in situations perceived as unchangeable, such as pre-competition nerves. However, the data also revealed an over-reliance on superstitions and rituals as a means of coping:

*“I tend to stick to certain rituals that I believe ward off anxiety.”* (Code: N-SA-03)

Such strategies are categorized as avoidance-focused coping, which may offer short-term psychological relief but can limit long-term adaptability and performance (Nicholls & Polman, 2007). In the context of high-level sport, habitual reliance on uncontrollable or irrational methods may reflect an underlying need for perceived control, a common characteristic of neurotic individuals (Eysenck & Derakshan, 2011). A critical theme that emerged was the inconsistency in attentional control. Participants frequently reported an inability to maintain concentration during competition when anxiety intensified:

*“Sometimes, my frustration turns into aggression during competitions.”* (Code: N-SA-04)

*“There are days when I barely feel any anxiety, and others when it overwhelms me.”* (Code: N-SA-05)

These fluctuations suggest that neuroticism not only amplifies physical symptoms but also disrupts cognitive functioning and emotional regulation, especially in high-stakes environments. This finding resonates with (Piepiora, 2024) conclude that neurotic athletes are more prone to performance inconsistency due to internal distraction and heightened self-focus under pressure. These findings underscore the importance of targeted psychological interventions that help neurotic athletes recognize anxiety symptoms early and adopt more problem-focused coping mechanisms, such as mental rehearsal, cognitive reframing, and routine stabilization (Gould & Udry, 1994).

### 4.2.2. Conscientiousness and Structured Cognitive Regulation

The results revealed that athletes scoring high in conscientiousness exhibited effective strategies for managing cognitive anxiety, largely due to their preference for structure, planning, and self-monitoring. The quantitative data showed that this group had one of the highest cognitive anxiety scores (29.17 ± 1.01), but interestingly, they also reported the highest self-confidence levels (26.50 ± 1.51), suggesting that their coping strategies may help them channel anxiety into performance readiness rather than psychological disruption. Qualitative insights affirmed these trends. Thematic codes showed that conscientious athletes consistently relied on detailed planning, structured routines, and self-reflection to reduce mental distractions. For instance, one participant remarked:

*“I plan every aspect of my training and competition to avoid surprises.”* (Code: C-CA01)

These findings support prior research indicating that conscientious individuals are more likely to engage in proactive coping, thus reducing uncertainty and cognitive overload (Komarraju & Karau, 2005). However, an important caveat emerged some participants experienced cognitive over-analysis, which led to rumination and performance anxiety when outcomes deviated from expectations. This echoes findings by Kaiseler, Polman, and Nicholls (2012), who noted that while conscientious athletes are effective planners, they may also struggle with flexibility when perfectionistic tendencies dominate. Another key coping strategy was self-monitoring through journaling, which served as a method of tracking emotional states and refining mental focus. One athlete stated:

*“Journaling helps me understand my emotional patterns and adjust my strategy.”* (Code:

C-CA-02)

This practice supports findings by (Haberl & Peterson, 2006), who argue that reflective practices like journaling enhance an athlete’s awareness of stress triggers, thereby improving adaptability and focus. Additionally, the use of mental rehearsal techniques and performance visualization was common among this group, contributing to enhanced concentration and confidence under pressure. However, a cautionary theme that emerged was the tendency toward over-analysis. One athlete acknowledged:

*“Sometimes, I get too caught up in planning and end up overthinking during a match.”* (Code: C-CA-03)

This suggests that although structure reduces anxiety for most conscientious athletes, perfectionistic tendencies can occasionally backfire. When athletes become overly fixated on flawless execution, their cognitive resources may be depleted by rumination, impairing in the moment decision-making (Hill et al., 2018). Importantly, several athletes expressed that having a structured yet flexible mindset enabled them to respond better to unpredictable scenarios. For example:

*“A well-laid plan gives me confidence even when the unexpected happens.”* (Code: CCA-04)

This reflects the importance of psychological flexibility, which allows athletes to adapt their coping strategies dynamically in response to changing stressors (Park & Jeon, 2023). In this sense, the most successful conscientious athletes were those who combined rigorous preparation with a willingness to adjust and adapt, rather than adhere rigidly to pre-established expectations.

### 4.2.3. Extraversion and the Dynamics of Social Support

Athletes with high levels of extraversion demonstrated a strong preference for socially oriented coping mechanisms to manage cognitive anxiety. According to the quantitative results, this group reported elevated cognitive anxiety scores (29.38 ± 1.18), yet their selfconfidence remained moderate (22.50 ± 2.07), suggesting that while they experienced mental stress, their social engagement served as a protective factor in maintaining motivation and emotional balance. The qualitative findings revealed that extraverted athletes regularly sought connection and affirmation through team discussions, mentorship, and shared experiences. One participant explained:

*“Talking with my team and mentors helps me keep a positive outlook.”* (Code: E-CSA01)

This behaviour reflects the findings of (Allen et al., 2013), who observed that extraverted athletes tend to benefit from environments that promote open communication and positive reinforcement. Such athletes are more likely to seek support proactively, which contributes to lower perceived stress levels and a stronger sense of control in competitive settings. Another participant emphasized the benefits of peer-based emotional regulation, stating:

*“Sharing experiences in a group setting often lightens the mental load.”* (Code: E-CSA04)

These findings align with those of (Nixdorf et al., 2015), who found that athletes with extraverted tendencies often externalize stress through verbal expression, which can facilitate emotional processing and cognitive reframing. The ability to verbalize concerns and receive validation appears to serve as a key mechanism through which extraverted athletes manage pre-competition anxiety. The analysis also uncovered the potential drawbacks of over-socialization, particularly in high-pressure or individual-focused moments where internal focus is critical. As one athlete described:

*“Sometimes I get too caught up in group dynamics and lose track of my own focus.”* (Code: E-CSA-02)

This statement underscores a recurring theme in the literature while extraversion is generally linked with adaptive coping, excessive dependence on external input may lead to cognitive distraction (Ong & Harwood, 2018). The challenge, then, is to balance social energy with solitary concentration strategies that allow for focus under pressure. Further supporting this notion, another participant reflected:

*“I try to use advice as a tool rather than a crutch during competitions.”* (Code: E-CSA05)

This suggests that effective extraverted athletes learn to modulate their engagement with others, integrating external support into their personal routines without compromising autonomy. Such athletes demonstrate what (Park & Jeon, 2023) calls "controlled sociability" the ability to engage when helpful, and detach when necessary. Additionally, positive affirmations and collaborative problem-solving were noted as important tools that reinforced self-confidence. For example:

*“Receiving encouragement from my peers boosts my self-belief.”* (Code: E-CSA-03)

This highlights how extraverts often rely on external validation to bolster their performance mindset. While this may foster motivation in supportive environments, it also suggests a potential vulnerability in less affirming or more isolating competitive conditions.

### 4.2.4. Agreeableness and Collaborative Coping

Quantitatively, this group displayed moderate somatic anxiety (28.00 ± 1.00) and relatively high self-confidence (24.14 ± 1.57), indicating that while they experienced physical symptoms of anxiety, their social coping resources offered emotional buffering. However, the qualitative data offered deeper insight into how these athletes manage anxiety during competition. A key theme was reliance on emotional support from peers.

As one athlete stated:

*“Talking about my feelings with teammates helps me manage my anxiety.”* (Code: AEFC-01)

This reflects the emotion-focused coping style often employed by agreeable individuals, who tend to prioritize interpersonal relationships and seek out social comfort in times of stress (Carver & Connor-Smith, 2010). These athletes derive a sense of stability and safety through close emotional ties, echoing previous findings that perceived support correlates with reduced anxiety and enhanced emotional control (Kristiansen & Roberts, 2010). A recurring pattern observed was the suppression of personal needs for the sake of group cohesion:

*“I often put my anxiety aside to support others in my team.”* (Code: A-EFC-02)

This behaviour demonstrates the self-sacrificing tendencies of highly agreeable individuals, which while beneficial to team dynamics can lead to under addressed psychological distress and suboptimal individual performance. In line with this, warned that excessive concern for others may prevent athletes from prioritizing their own coping and recovery (Nicholls & Polman, 2007). Other participants described collaborative problem-solving as a preferred approach during high anxiety scenarios:

*“Working together with my team on strategies makes the pressure easier.”* (Code: AEFC-03)

This reinforces the idea that agreeableness fosters cooperative behaviours that promote mutual understanding and collective emotional resilience. While these strategies are beneficial in individual sports like combat disciplines, where athletes must often act independently under pressure. Another noteworthy theme was empathetic, emotiondriven coping:

*“I rely on mutual encouragement to overcome stressful moments.”* (Code: A-EFC-04)

Although such coping can provide immediate psychological relief, long-term success in competitive environments typically requires a combination of emotion-focused and problem-focused mechanisms (Folkman, 2013). Without strategic self-regulation skills such as goal setting, concentration control, and cognitive reframing these athletes may struggle to optimize performance when social support is not available. The dual nature of agreeableness promoting emotional stability through relationships but potentially limiting personal assertiveness highlights the importance of tailored interventions. Coaches and psychologists should help agreeable athletes develop boundary setting skills and personalized performance routines that allow for both team engagement and self-focus.

### 4.2.5. Openness to Experience: Creativity and the Challenge of Consistency

Quantitative findings indicated moderate somatic anxiety levels (27.44 ± 1.13) and moderate self-confidence (23.44 ± 1.33), suggesting that while stress was present, these athletes often found ways to regulate it using non-traditional coping mechanisms. The qualitative data added depth, revealing how openness to experience translated into both strength and potential vulnerability in high-performance settings. One athlete expressed:

*“I like to try out new training methods that keep my mind engaged.”* (Code: O-IC-01)

This reflects the core personality trait of openness a preference for variety, intellectual curiosity, and imaginative thinking (McCrae & Costa, 1991). In sport psychology, such openness often correlates with the use of creative coping mechanisms like visualization, role-play, and mental rehearsal (Kaufman et al., 2018). Another participant elaborated on their adaptive flexibility:

*“I am always open to exploring alternative coaching methods.”* (Code: O-IC-02)

These findings align with work by Jackson, Fritch, and Eaton (2010), who observed that athletes high in openness are more likely to adjust their training styles and adopt new techniques when facing anxiety or performance plateaus. This exploratory attitude can enhance resilience and provide mental stimulation, which in turn improves emotional regulation and focus. Results also showed a cautionary note: over-experimentation and inconsistency. Several participants described switching between strategies too frequently:

*“Sometimes I change my focus too often, which confuses my routine.”* (Code: O-IC-03)

This pattern suggests that while creative strategies can be beneficial, they must be grounded in structure to avoid undermining performance. Without a stable foundation, the constant trial of new techniques may lead to a lack of continuity, ultimately disrupting preparation and confidence. One athlete insightfully reflected:

*“It’s important to innovate without losing the stability of a routine.”* (Code: O-IC-05) This sentiment reflects the need for balanced innovation the ability to incorporate fresh methods while maintaining consistency and discipline. (Park & Jeon, 2023) refers to this as structured creativity, where innovation is channelled within a framework of habitual performance-enhancing behaviours.

In psychological terms, the coping mechanisms observed here align with problem-focused coping, particularly when athletes used new tools deliberately to address specific stressors (Folkman, 2013). When experimentation lacked purpose or reflection, it resembled distraction-based avoidance coping, which has been associated with inconsistent outcomes (Nicholls & Polman, 2007). Their innovation is a psychological asset, but its effectiveness depends on their ability to anchor new methods within a stable training structure.

### 4.2.6. Integrated Model of Personality, Anxiety, and Coping

Figure 4.5. integrated the findings across personality traits, anxiety dimensions, and coping mechanisms. This model suggests that:

* Neuroticism: Athletes benefit from structured routines, mindfulness practices, and techniques aimed at reducing physiological arousal. They may also need guidance to reduce reliance on maladaptive behaviors such as avoidance or superstition.
* Conscientiousness: These athletes thrive with detailed planning and goal-setting but may require support in avoiding overthinking and embracing flexibility when plans deviate.
* Extraversion: Encouraging collaborative problem-solving and positive peer engagement can reduce anxiety. Athletes may need strategies to maintain individual concentration during critical moments.
* Agreeableness: These individuals respond well to team-based emotional support, but may need to be reminded to prioritize their own performance and set personal goals.
* Openness to experience: These athletes benefit from innovative training methods, such as visualization and creative rehearsal, though consistency and routine should be reinforced to stabilize performance.

This integrated model offers a significance view of how personality traits impact competitive anxiety and the subsequent coping responses in combat sports. Coaches should incorporate personality profiling into athlete assessments to design interventions that align with individual psychological needs.

# CHAPTER Ⅴ

# CONCLUSION AND RECOMMENDATIONS

## 5.1. Conclusion

This study set out to explore how personality traits influence the coping mechanisms used to manage competitive state anxiety among selected combat sports athletes in Sri Lanka. By adopting a mixed-methods approach, the research combined quantitative data on personality and anxiety with rich qualitative insights from athletes’ lived experiences. Quantitative data assessing identified the different personality traits and competitive state anxiety types with qualitative insights used to exploring athlete experiences and coping strategies. The findings contribute to a nuanced understanding of how individual personality profiles shape CSA and coping strategies in high-pressure combat sporting contexts.

The results clearly demonstrate that athletes adopt different coping strategies depending on their personality profiles, with specific mechanisms emerging as more effective for managing either cognitive or somatic anxiety. The study also addressed the specific objective, which was to identify the personality traits of combat sports athletes. Using the big five personality model as a framework, athletes were categorized according to levels of neuroticism, conscientiousness, extraversion, agreeableness, and openness to experience. Each personality trait was then linked to a dominant form of anxiety and a set of coping mechanisms, allowing for a comprehensive analysis of the trait, CSA and coping dynamic. This study identified three major key themes problem-focused, emotionfocused, and avoidance-focused coping mechanisms used by athletes to manage CSA. Each of these main themes encompassed several sub-themes that offered deeper insights into the unique ways female combat sports athletes cope with CSA.

Athletes high in neuroticism were shown to experience heightened somatic anxiety. Their coping mechanisms included both emotion-focused strategies, such as mindfulness and self-talk, and avoidance-focused behaviors, such as superstition and ritual. However, these strategies often lacked consistency, and several athletes described difficulties maintaining concentration during competition. This finding highlights the vulnerability of neurotic athletes to anxiety-related performance disruptions, reinforcing the importance of structured psychological interventions for this group.

Athletes high in conscientiousness were effective in managing cognitive anxiety through detailed planning, goal setting, and self-monitoring. Their routines, which often included journaling and mental rehearsal, provided a sense of control and confidence. Nonetheless, the data also revealed that these athletes were prone to over-analysis and perfectionism, occasionally leading to cognitive overload. This dual effect suggests that while conscientiousness promotes psychological discipline, it must be balanced with flexibility to avoid mental fatigue.

Extraverted athletes demonstrated a strong reliance on social support systems to regulate cognitive anxiety. They frequently turned to team discussions, peer validation, and mentor advice as sources of emotional reassurance. This outwardly focused coping style boosted self-confidence and provided a buffer against stress. However, over-socialization emerged as a potential drawback, with some athletes reporting that excessive external engagement interfered with their ability to concentrate and maintain personal focus during competition.

Athletes with high levels of agreeableness demonstrated strong collaborative and emotionally supportive coping strategies that were particularly beneficial in managing competitive state anxiety. Their natural tendency to foster harmony, offer encouragement, and build trust with peers allowed them to create emotionally safe environments, even within the competitive and high-pressure nature of combat sports. This interpersonal strength enabled them to regulate somatic anxiety through shared emotional experiences and mutual support, making agreeableness a valuable trait in individual sports that still rely on team-based training and coaching structures. Their ability to connect with others, express empathy, and maintain composure not only benefited their own psychological readiness but also had a positive ripple effect on those around them. Therefore, agreeableness can be seen as a psychological asset in combat sports, as it facilitates effective coping with competition anxiety, strengthens team cohesion, and enhances emotional regulation under pressure.

Finally, athletes high in openness to experience embraced creative and innovative coping strategies, including visualization, alternative coaching methods, and mental experimentation. These techniques were particularly effective when traditional approaches failed to provide relief. Yet, a tendency to frequently change strategies led to inconsistencies in performance preparation. The data suggest that openness is a psychological asset when guided by structure, as athletes benefit most when innovation is balanced with consistency.

The findings of this study reveal that personality traits significantly influence both the experience of CSA and the strategies used to manage it. Coping is not a one-size-fits-all process; rather, it is shaped by the athlete’s personality profile, which determines their emotional triggers and preferred methods of anxiety regulation. This insight is critical for coaches, sport psychologists, and performance consultants who seek to support athletes in a more personalized and effective manner.

In terms of practical applications, the study recommends incorporating personality assessments, such as the big five inventory, into regular athlete evaluations.

Understanding an athlete’s personality profile can help practitioners design coping interventions that align with their natural preferences and psychological tendencies. For example, neurotic athletes may benefit from anxiety reduction techniques and cognitive reframing, while conscientious athletes may require help balancing structure with adaptability. Similarly, extraverts may thrive with team-based support systems, and those high in openness may benefit from guided innovation with clear performance anchors. While the study yielded rich insights, it also has limitations.

This study underscores the critical role of personality traits in shaping coping responses to CSA in combat sports. Athletes bring with them not only physical skills but also unique psychological dispositions that influence how they respond to anxiety. Understanding and supporting these differences can lead to more effective mental skills training, better emotional regulation, and finally, enhanced athletic performance. By placing personality at the center of coping research, this study encourages a more individualized and psychologically informed approach to athlete development and well-being.

## 5.2. Recommendations

The insights gleaned from this analysis have significant practical implications for coaches, sports psychologists, and athletes in combat sports. Key recommendations include:

Personalized Training Programs: Coaches have to consider personality profiles when designing training and intervention programs.

Integrated Coping Mechanisms: Given the diverse range of coping mechanisms identified, a multi-faceted approach is recommended. Interventions should blend problem-focused techniques (e.g., goal-setting, detailed planning) with emotion-focused strategies (e.g., self-talk, mindfulness). Additionally, athletes should be trained to recognize when avoidance-focused behaviors might be counterproductive and to switch to more adaptive strategies.

Monitoring and Feedback: Psychological assessments and performance reviews should be integrated into training programs. Using tools such as the big five personality test alongside competitive anxiety assessments can help coaches tailor interventions and provide targeted feedback.

Based on the current findings, several avenues for future inquiry are proposed:

1. The sample was limited to female athletes from individual combat sports, which may limit the generalizability of findings to gender. Future studies should explore these dynamics in different populations, use larger samples, and consider longitudinal designs to assess how coping mechanisms evolve throughout an athlete’s career. It will provide deeper insights into personality adaptation.
2. Cross-sport and cross-cultural comparisons could explore whether the personalityanxiety-coping model holds true in team sports, non-combat disciplines, or in athletes from different cultural backgrounds.
3. Investigating the role of coaching style and organizational climate in moderating the personality, CSA anxiety and coping could yield practical recommendations for sport governance bodies.
4. A quantitative path analysis or mediation model could be developed in future studies to test whether personality traits statistically mediate the relationship between anxiety and performance outcomes.
5. Investigating the practical implementation of these strategies in a competitive environment.

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# ANNEXURES

**Annexure – A**

**Informed Consent Form**

Part 1: Information Sheet

Exploring Coping Mechanisms in Managing Competitive State Anxiety among Selected Combat Sports Athletes in Sri Lanka

**Introduction**

I, A.G.B.R.I.Thilakarathhna attached to Sabaragamuwa University of Sri Lanka as final year research student, I would like to invite you to take part in the research study titled "

Exploring Coping Mechanisms in Managing Competitive State Anxiety in selected

Combat Sports Athletes in Sri Lanka" This study is conducted by

A.G.B.R.I.Thilakarathhna at Sabaragamuwa University of Sri Lanka.

1. **Purpose of study**

This research aims to explore how different personality traits influence coping mechanisms for manage competitive state anxiety.

1. **Type of research intervention**

Mix method (quantitative leading qualitative research design) **c. Participation selection**

You have been chosen to participate in this research because you are a national-level combat sports athlete. As athletes competing at the highest level of the sport, you possess valuable experience in handling competitive pressure, making your insights particularly relevant to this study. Your participation will help provide accurate and in-depth data on the relationship between personality traits, competitive anxiety, and coping mechanisms in high-performance sports environments.

1. **Voluntary participation**

Participation in this study is entirely voluntary. You are free to choose whether or not to take part, and there will be no consequences if you decide not to participate. If you agree to participate, you may also withdraw from the study at any time.

1. **Procedure and protocol**

I would like to ask you to participate in the following steps as part of this research study:

Completion of personality and anxiety assessments: You will be asked to complete standardized questionnaires to assess your personality traits and competitive anxiety levels.

Qualitative interviews: Based on the results of the assessments, I will ask questions coping mechanics based on personality traits.

1. **Duration** 
   * Starting date – 21/02/2025
   * Ending date – 20/04/2025
2. **Confidentiality**

Confidentiality will be strictly maintained throughout this study. All data collected, including questionnaire responses and interview transcripts, will be securely stored and accessible only to the research team. Your personal information will be anonymized, and any published findings will not include details that could identify you.

1. **Sharing of results**

The results of this study will be used for academic purposes and may be published in research journals, presented at conferences, or included in educational materials related to sports psychology. All findings will be reported in an aggregated and anonymous manner, ensuring that no individual participant can be identified. If you wish to receive a summary of the study’s findings, you may request a copy, which will be shared with you once the research is completed.

Part II: Consent Form **To be completed:**

a. By the participant the participant should complete the whole of this sheet himself/herself.

1. Have you read the information sheet? (Please keep a copy for yourself) YES/NO
2. Have you had an opportunity to discuss this study and ask any questions? YES/NO
3. Have you had satisfactory answers to all your questions? YES/NO
4. Have you received enough information about the study? YES/NO
5. Who explained the study to you? ………………………………………………………
6. Do you understand that you are free to withdraw from the study at any time, without having to

give a reason and without affecting your future medical care? YES/NO

1. Sections of your medical notes, including those held by the investigators relating to your

participation in this study may be examined by other research assistants. All personal details will be treated as STRICTLY CONFIDENTIAL. Do you give your permission for these individuals to have access to your records? YES/NO

1. Have you had sufficient time to come to your decision? YES/NO
2. Do you agree to take part in this study? YES/NO

Participant’s signature………………………….………… Date…………………….

Name (BLOCK CAPITALS) …………………………………………………………

b. By the investigator I have explained the study to the above participant and he/she has indicated willingness to take part.

Signature of investigator……………………....………….

Date……………………….

Name (BLOCK CAPITALS) …………………………………………………………

**Annexure – B Demographic Information Sheet**

**Research Title:** Exploring Coping Mechanisms in Managing Competitive State Anxiety among Selected Combat Sports Athletes in Sri Lanka

**Instructions:** Please complete the following questions. Your responses will remain confidential and used solely for research purposes.

**Section 1: General Information**

1. Participant Code (For Research Use Only): \_\_\_\_\_\_\_
2. Age: \_\_\_\_\_\_\_ years
3. Gender: ☐ Male ☐ Female
4. Height: \_\_\_\_\_\_\_ cm
5. Weight: \_\_\_\_\_\_\_ kg
6. Dominant Hand: ☐ Right ☐ Left ☐ Ambidextrous

**Section 2: Sport Background**

1. Combat Sport Discipline:

☐ Wrestling ☐ Judo ☐ Taekwondo ☐ Karate

1. Total Years of Experience in Combat Sports: \_\_\_\_\_\_\_ years
2. Current Competition Level:

☐ National ☐ International ☐ Other (Please specify: \_\_\_\_\_\_\_\_)

1. Number of Competitions Participated in the Last 12 Months: \_\_\_\_\_\_\_
2. Usual Competition Weight Category: \_\_\_\_\_\_\_
3. Injury: ☐ Yes ☐ No (If yes please specify: \_\_\_\_\_\_)
4. Psychological Disorders: ☐ Yes ☐ No (If yes please specify: \_\_\_\_\_\_)

**Section 3: Training and Performance**

1. Average Weekly Training Hours: \_\_\_\_\_\_\_ hours
2. Do you receive formal mental training for competition (e.g., sports psychology, mindfulness, visualization)?

☐ Yes ☐ No ☐ Sometimes

1. How do you typically feel before a competition? (Check all that apply) ☐ Nervous ☐ Excited ☐ Confident ☐ Anxious ☐ Focused ☐ Other (Please specify: \_\_\_\_\_\_\_\_)
2. How would you describe yourself in competition? (Check all that apply)

☐ Calm and composed

☐ Aggressive and dominant

☐ Highly focused

☐ Easily distracted

☐ Emotionally driven

☐ Other (Please specify: \_\_\_\_\_\_\_\_)

1. Do you have any additional comments regarding your mindset, personality, or performance in competition?

**Thank you for your participation!**

**Annexure – C Big five personality test**

**Introduction:** This is a personality test; it will help you understand why you act the way that you do and how your personality is structured. Please follow the instructions below, scoring and results are on the next page.

**Instructions:** In the table below, for each statement 1-50 mark how much you agree with on the scale 1-5, where 1=disagree, 2=slightly disagree, 3=neutral, 4=slightly agree and 5=agree, in the box to the left of it.

|  |  |  |  |
| --- | --- | --- | --- |
| Rating | I.... | Rating | I..... |
|  | 1. Am the life of the party. |  | 26. Have little to say. |
|  | 2. Feel little concern for others. |  | 27. Have a soft heart. |
|  | 3. Am always prepared. |  | 28. Often forget to put things back in their proper place. |
|  | 4. Get stressed out easily. |  | 29. Get upset easily. |
|  | 5. Have a rich vocabulary. |  | 30. Do not have a good imagination. |
|  | 6. Don't talk a lot. |  | 31. Talk to a lot of different people at parties. |
|  | 7. Am interested in people. |  | 32. Am not really interested in others. |
|  | 8. Leave my belongings around. |  | 33. Like order. |
|  | 9. Am relaxed most of the time. |  | 34. Change my mood a lot. |
|  | 10. Have difficulty understanding abstract ideas. |  | 35. Am quick to understand things. |
|  | 11. Feel comfortable around people. |  | 36. Don't like to draw attention to myself. |
|  | 12. Insult people. |  | 37. Take time out for others. |
|  | 13. Pay attention to details. |  | 38. Shirk my duties. |
|  | 14. Worry about things. |  | 39. Have frequent mood swings. |
|  | 15. Have a vivid imagination. |  | 40. Use difficult words. |
|  | 16. Keep in the background. |  | 41. Don't mind being the center of attention. |
|  | 17. Sympathize with others' feelings. |  | 42. Feel others' emotions. |
|  | 18. Make a mess of things. |  | 43. Follow a schedule. |
|  | 19. Seldom feel blue. |  | 44. Get irritated easily. |
|  | 20. Am not interested in abstract ideas. |  | 45. Spend time reflecting on things. |
|  | 21. Start conversations. |  | 46. Am quiet around strangers. |
|  | 22. Am not interested in other people's problems. |  | 47. Make people feel at ease. |
|  | 23. Get chores done right away. |  | 48. Am exacting in my work. |
|  | 24. Am easily disturbed. |  | 49. Often feel blue. |
|  | 25. Have excellent ideas. |  | 50. Am full of ideas. |

E = 20 + (1) - (6) + (11) - (16) + (21) - (26) + (31) - (36) + (41) - (46)

=

A = 14 - (2) + (7) - (12) + (17) - (22) + (27) - (32) + (37) + (42) + (47)

=

C = 14 + (3) - (8) + (13) - (18) + (23) - (28) + (33) - (38) + (43) + (48)

=

1. = 38 - (4) + (9) - (14) + (19) - (24) - (29) - (34) - (39) - (44) - (49)

=

1. = 8 + (5) - (10) + (15) - (20) + (25) - (30) + (35) + (40) + (45) + (50)

=

The scores you calculate should be between zero and forty. Below is a description of each trait.

* + **Extroversion (E)** is the personality trait of seeking fulfillment from sources outside the self or in community. High scorers tend to be very social while low scorers prefer to work on their projects alone.
  + **Agreeableness (A)** reflects much individuals adjust their behavior to suit others. High scorers are typically polite and like people. Low scorers tend to

'tell it like it is'.

* + **Conscientiousness (C)** is the personality trait of being honest and hardworking. High scorers tend to follow rules and prefer clean homes. Low scorers may be messy and cheat others.

* + **Neuroticism (N)** is the personality trait of being emotional.
  + **Openness to Experience (O)** is the personality trait of seeking new experience

and intellectual pursuits. High scores may day dream a lot. Low scorers may be very down to earth (Lewis Goldberg, 1990).

**Annexure – D**

**Competitive state anxiety inventory– 2**

The following are several statements that performers use to describe their feelings before a performance or competition. Read each statement and circle the appropriate number to indicate how you feel right now at this moment. There are no right or wrong answers. Do not spend too much time on any one statement.

**NOT SOMEWHAT MODERATELY VERY MUCH**

**AT ALL SO SO**

1. I am concerned about this 1 2 3 4 performance.
2. I feel nervous. 1 2 3 4
3. I feel at ease. 1 2 3 4
4. I have self-doubts. 1 2 3 4
5. I feel jittery. 1 2 3 4
6. I feel comfortable. 1 2 3 4
7. I am concerned I may not do as 1 2 3 4 well in this performance as I could.
8. My body feels tense. 1 2 3 4
9. I feel self-confident. 1 2 3 4
10. I am concerned about losing or 1 2 3 4 doing poorly.
11. I feel tense in my stomach. 1 2 3 4
12. I feel secure. 1 2 3 4
13. I am worried about performing 1 2 3 4 well.
14. My body feels relaxed. 1 2 3 4
15. I’m confident I can meet this 1 2 3 4 challenge.
16. I’m concerned about 1 2 3 4 performing poorly.
17. My heart is racing. 1 2 3 4

1. I’m confident about performing well. 1 2 3 4
2. I’m worried about reaching my goal. 1 2 3 4
3. I feel my stomach sinking. 1 2 3 4
4. I feel mentally relaxed. 1 2 3 4
5. I’m concerned that others will be 1 2 3 4 be disappointed with my performance.
6. My hands are clammy. 1 2 3 4
7. I’m confident because I mentally picture 1 2 3 4 myself reaching my goal.
8. I’m concerned I won’t be able to focus. 1 2 3 4
9. My body feels tight. 1 2 3 4
10. I’m confident of coming through under 1 2 3 4 pressure.

**Scoring**

This scale divides anxiety into three components: cognitive anxiety, somatic anxiety, and a related component—self-confidence. Self-confidence tends to be the opposite of cognitive anxiety and is another important factor in managing stress. To score the CSAI-2, take the scores for each item at face value with the exception of item 14, where you “reverse” the score. For example, if you circled 3, count that as 2 points. When totaling your rankings, you will arrive at the following three scores: **Cognitive State Anxiety:** (Sum of items 1, 4, 7, 10, 13, 16, 19, 22, & 25)

**Somatic State Anxiety:**(Sum of items 2, 5, 8, 11, 14, 17, 20, 23, & 26)

**Self-Confidence:** Sum of items 3, 6, 9, 12, 15, 18, 21, 24, & 27) (Martens et al., 1990) **Annexure – E**

**Coping Mechanism Interview Protocol**

**Research Title**: Exploring Coping Mechanisms in Managing Competitive State

Anxiety among Selected Combat Sports Athletes in Sri Lanka

**Section 1: General Background**

1. Can you introduce yourself? (Sport, competitive level, years of experience)
2. How do you usually feel before a match? (e.g., excited, nervous, calm, focused, tense)
3. Do you feel your personality influences how you handle pressure in competitions?

**Section 2: Experience of Competitive State Anxiety**

1. What are the main sources of anxiety for you before or during competition?

(e.g., fear of losing, pressure from coaches, audience expectations, self-doubt) 5. How does anxiety affect your physical and mental state during a fight?

1. Can you describe a time when competitive anxiety negatively impacted your performance? How did you handle it?

**Section 3: Sport-Specific Coping Mechanisms for Managing Competitive Anxiety**

This section blends CISS coping styles (task-, emotion-, and avoidance-oriented) with combat sport-specific strategies.

**Task-Oriented Coping (Performance and Strategy Focused)**

1. When you feel anxious, do you focus on adjusting your game plan or technical skills to stay in control? Can you give an example?
2. Do you have specific pre-fight routines or rituals that help you stay focused and confident?
3. How do you mentally prepare yourself during training to handle anxiety in competitions?
4. When facing a tough opponent, do you set short-term goals (e.g., control the first round, maintain distance, land a specific strike)? Does this help reduce anxiety?

**Emotion-Oriented Coping (Managing Feelings and Mental State)**

1. How do you handle overwhelming emotions, such as frustration, fear, or anger, during competition?
2. Do you use self-talk (e.g., positive affirmations, mantras) to control your anxiety? If so, what do you say to yourself?
3. How important is breathing control or relaxation techniques in managing your nerves? Do you practice these techniques before a fight?
4. Do you seek support from coaches, teammates, or family when dealing with anxiety? How do they help?

**Avoidance-Oriented Coping (Distraction or Emotional Escape Strategies)**

1. Do you try to distract yourself from anxiety before a competition? (e.g., listening to music, watching fights, talking to teammates)
2. Have you ever avoided thinking about an upcoming match as a way to cope? Did this help or hurt your performance?
3. Some athletes engage in superstitions or lucky rituals to feel in control. Do you have any personal habits like this?

**Section 4: Personality, Anxiety, and Coping**

1. Do you think your personality influences the way you cope with competitive anxiety? How?
2. Have you changed your coping strategies over time? If so, what influenced this change?
3. What advice would you give to younger athletes struggling with competitive anxiety?

**Annexure – F**

**Sinhala Translation of Big five personality test, Competitive state anxiety inventory– 2, Coping Mechanism Interview Protocol**

