## MENTAL TOUGHNESS IN THE WORKPLACE

by

Maiah Taylor

Liberty University

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree

Doctor of Philosophy

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April, 2024

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#### **Abstract**

Within the realm of the modern work organization, the employers role on employees' mental health has emerged as a critical factor concerning job attrition. Frequently, work organizations prioritize their productivity and output, rather than recognizing the importance of individual contributions as a reflection of their well-being. Research on workplace satisfaction and adversity management has failed to address the challenges that non-military or law enforcement populations face in retaining talent. Current research on mental toughness, resilience, and grit has overlooked the importance of civilian population training interventions, leaving a gap in the literature. This mixedmethod study used an explanatory sequential design, combining quantitative survey data with phenomenology, to address this gap by examining the instances of workplace adversities of 144 non-military or law enforcement employees. The research questions explored the relationships between mental toughness, grit, workplace satisfaction and perceived adversity in the workplace, framed within the incremental theory and cognitive affective model (CAP). Quantitative data suggested that there was a positive correlation between mental toughness and grit, workplace satisfaction and mental toughness, and between workplace satisfaction and grit. Qualitative data analysis revealed three primary themes in the participants' written stories when asked about their instances of workplace adversity: tone, emotionality, and temporal focus. The findings emphasize the need for employers to prioritize employee mental toughness and resilience interventions in an effort to bolster workplace satisfaction, minimize quitting intention, and retain talent while improving overall well-being.

*Keywords:* resilience, mental toughness, adversity, workplace satisfaction, interventions, employee well-being, civilian.

# **Copyright Page**

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## **Dedication**

I dedicate this dissertation to my mom, Sonya Taylor, my dad, Howard Taylor, and my younger sister, Aja. Your constant encouragement and belief in me have been the pillars upon which I built my academic journey. Your sacrifices and guidance have been instrumental in shaping me into the person I am today. This achievement is as much yours as it is mine.

## Acknowledgments

I would like to extend my heartfelt gratitude to my dissertation chair, Dr. Ogburn, for his unwavering support and guidance throughout this dissertation journey. I am equally grateful for my second committee member, Dr. Gaines', constructive feedback and expertise. My sincere appreciation goes to my friends and family for their encouragement and understanding during this demanding yet fulfilling endeavor.

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#### CHAPTER 1: INTRODUCTION TO THE STUDY

#### Introduction

Pursuing talent acquisition and retention is paramount for organizations aiming to remain competitive. Alongside this drive, the challenges of managing stress, burnout, and workplace satisfaction have emerged as critical factors affecting employee well-being and organizational effectiveness. This chapter will explore the relationship between employee mental health, resilience, and employers' role in nurturing a supportive workplace. Inspired by the United States Army's master resilience training program, which imparts mental toughness and resilience to soldiers, this research extends its focus to encompass non-military or law enforcement personnel. The study aims to uncover the factors that empower organizations to cultivate a resilient and productive workforce while fostering employee well-being by examining the links between mental toughness, workplace satisfaction, and workplace adversity. This study helps clarify that this phenomenon exists across the entire workforce and is not specific to first responder professions.

Implications of the present study illuminated avenues through which organizations can curate environments that promote individual growth, alleviate burnout, and contribute to the overall advancement of employees and their respective organizations. Study results also provide a direction for employers in developing effective strategies for dealing with employee stress, quitting intention, and productivity management. This chapter provides background information related to resilience, mental toughness interventions, and the role of employers in promoting employees' mental

health. I discuss the problem statement, study purpose, theoretical foundation, key concepts and terms, study assumptions, scope, and limitations of the present study.

## **Background**

In today's candidate-driven job market, talent attraction and retention have become crucial for organizations seeking a competitive edge (Alex, 2021). Concurrently, stress and burnout have emerged as significant challenges affecting employee well-being and organizational productivity (Sun et al., 2022). The negative mental and physical health experienced by employees unsatisfied with their jobs highlights employers' crucial role in promoting their employees' mental well-being and mitigating the adverse impacts of stress and burnout (Spector, 1997). The United States Army's Master Resilience

Training (MRT) program, one of the largest-scale psychological interventions ever undertaken, is an example of an initiative that teaches soldiers mental toughness, grit, and resilience to enhance their performance in challenging circumstances. This program, originally established in 2009, is one of the United States Army's readiness strategies aimed specifically at enhancing soldiers' ability to handle adversity, prevent depression, anxiety, and PTSD through a series of face-to-face modules throughout their career (Reilich et al., 2011).

Mental toughness, resilience, and grit can be defined as the ability to maintain performance levels and view pressure as a challenge to overcome (Aryanto & Larasati, 2020). Programs like the Army's resilience training are particularly relevant, considering that first responders often encounter traumatic experiences and report high rates of post-traumatic stress disorder (PTSD) (Joyce et al., 2019). Interventions focused on improving resilience may help protect the mental health of this high-risk population (Wild et al.,

2020). If resilience, mental toughness, and grit can be cultivated through training programs, it raises the question of an employer's responsibility to foster their employees' mental health.

Exploring the employer's role in employees' mental health is essential for understanding how organizations can recruit individuals with traits consistent with mental toughness or implement strategies to enhance employees' resilience throughout their careers. Additionally, research shows that investigating how employers influence talent attraction and retention in today's job market carries profound importance in the art of talent management (Pandita & Ray, 2018). Research indicates an inverse relationship between resilience and burnout, suggesting that individuals with lower levels of mental toughness, grit, or resilience are more likely to experience burnout (Shakir et al., 2020). Burnout is associated with negative outcomes such as early retirement, job change, relationship conflicts, depression, substance abuse, and suicide (Lebares et al., 2018).

Adams and Mastracci (2020) found that both sworn and civilian employees experience varying levels of emotional exhaustion and depersonalization, with emotional labor significantly related to workplace burnout. Conversely, Ferreira and Gomes (2021) demonstrated that higher levels of resilience are associated with lower emotional exhaustion, depersonalization, and higher levels of personal achievement. These findings highlight the importance of resilience in reducing burnout levels in highly stressful work environments. Employers can potentially implement resilience, grit, and mental toughness interventions to support their employees' mental health and effectively mitigate stress and burnout, thus possibly improving retention rates.

By investigating talent attraction and retention, stress and burnout, and the employer's role in employees' mental health, this dissertation aimed to contribute to understanding how organizations can create strategies and implement interventions that promote employee well-being, enhance retention rates, and foster a resilient workforce. Recognizing the potential for resilience training programs, like the Army's master resilience training, to positively impact individuals, employers can play a crucial role in building and maintaining a mentally healthy work environment conducive to employee growth and productivity.

#### **Biblical Foundation**

Biblically, several scriptures connect the Bible's teachings with mental toughness development in the work context. The biblical foundation of the present study drew inspiration from Matthew 5:16, emphasizing the biblical perspective on work as a means to glorify God and let one's light shine. This passage underscores the idea that work manifests one's devotion to the Lord. Various Bible verses, including Colossians 3:23-24 (work as service to the Lord), Proverbs 12:11 (diligence yields riches), Ephesians 6:7-8 (work as service to God), 1 Corinthians 10:31 (all for God's glory), and Genesis 2:15 (stewardship of the garden), support the notion of work as a demonstration of faith and obedience. Additionally, drawing on passages like James 1:2-4 (trials and growth) and Romans 5:3-4 (suffering and character), individuals are encouraged to see challenges as opportunities for growth and character development, incorporating the concept of enduring troubles in the workplace. The integration of faith and mental toughness is highlighted, reflecting on spiritual discipline as described by Willard (1988) and its application to mental toughness training. Furthermore, a study conducted by Wang et al.

(2021), demonstrated how incorporating intrinsic religiosity to enhance mental toughness relates to biblical principles such as endurance, perseverance, hope, self-control, prayer, and humble confidence.

#### **Problem Statement**

Stress and burnout are prevalent in the law enforcement and military workforce, often resulting in talent attrition when left unaddressed (Bhowmick & Mulla, 2021). The detrimental impact of constantly replacing employees due to talent attrition on organizations has been well documented (McCarty et al., 2019). While effective strategies to mitigate stress and burnout have been implemented in military and paramilitary organizations, their application in civilian settings remains limited (Denkova et al., 2020). This research gap exists specifically in the context of resilience building within non-sworn populations (Adams & Mastracci, 2020).

The potential consequences of low resilience, mental toughness, and grit within specific employee groups underscore the importance of addressing this problem. Such individuals are likelier to experience decreased workplace satisfaction, higher turnover intentions, and an increased risk of developing psychological disorders (Lebares et al., 2018). By addressing this problem, practical benefits can be realized for the entire workforce, contributing to a deeper understanding of this phenomenon.

Existing literature characterizes resilience, mental toughness, and grit as skills that can be enhanced through therapeutic interventions (Leys et al., 2020). Research has shown a negative correlation between resilience and major psychiatric syndromes, including depressive and anxiety disorders, post-traumatic stress disorder, eating disorders, and addiction (Cuomo et al., 2008; Fossion et al., 2013, 2015; Leys et al.,

2017). Given the substantial healthcare costs and impact on the quality of life associated with these disorders, the role of resilience in public and mental health is crucial.

In order to gain a comprehensive understanding of how to improve employee resilience, one must conduct in-depth qualitative research. Focusing on employees' workplace experiences can facilitate the development of strategic approaches to talent retention, stress and burnout reduction, and the role of employers in promoting employees' mental health.

### **Purpose of the Study**

This mixed-method study examined the relationship between mental toughness, grit, workplace satisfaction, and quitting intention, in non-military or law enforcement professionals. This research also aimed to evaluate the relationship between mental toughness, grit, and how employees reflect upon their lived experiences of adversity in the workplace. The study sought to provide insights into the factors influencing workplace satisfaction and resilience among employees in non-military and law enforcement careers through the qualitative and quantitative data gathered from the listed research questions.

## **Research Questions and Hypotheses**

RQ1: How do non-military and law enforcement employees describe their lived experiences of adversity in the workplace?

RQ2: What is the relationship between workplace satisfaction, quitting intention, and perceived workplace adversity among employees?

Hypothesis 2: There will be a negative correlation between perceived workplace adversity and workplace satisfaction.

RQ3: How do employees who have participated in resilience training report their workplace satisfaction compared to employees who have not attended training?

Hypothesis 3: Employees who have participated in resilience training will exhibit significantly higher self-reported workplace satisfaction scores compared to employees who have not.

RQ4: What is the relationship between mental toughness and grit in this population?

Hypothesis 4: There will be a strong positive correlation between mental toughness and grit.

## **Assumptions**

An assumption in this study is that participants' field of work is accurately reported. This assumption is necessary because I cannot determine from a verifiable source (i.e., employment verification documentation) what their employment status is for a variety of reasons (i.e., anonymity, confidentiality, discretion). Another assumption is that participants answered honestly about their experiences in the workplace. In the present study, I also assumed that a person's personality motivates them to develop other traits and characteristics like mental toughness and resilience later in life through maturational processes. This assumption was founded on the correlation between the two constructs and the understanding that personality traits are genetically and environmentally influenced early in one's life (Briley & Tucker-Drob, 2014)

The final assumption of the present study was objectivity. Quantitatively, objectivity was inherent because the survey-method minimized researcher subjectivity or bias and allowed for data to be analyzed statistically and unbiasedly. Qualitatively, however, objectivity could not be assumed but instead subjectivity was. Response to an open-ended question allowed participants to respond in a subjective manner, synthesized and coded in as unbiased of a way as possible.

#### Limitations

Due to the relatively small and potentially unique sample available for the study, results may not be generalizable beyond the specific sample population. This limitation implies that future research should be conducted with a larger sample to confirm the findings. Additionally, survey data and anonymity allowed respondents to answer in ways that do not truly reflect personal attributes, ideas, beliefs, and behaviors, resulting in a poor reflection of the opinions of members in this population. However, all respondents were expected to have answered all questions honestly and to the best of their abilities. Another limitation was related to gender. Gender was not a variable I initially planned to utilize; however, this study was strengthened by validating the gender-related associations between participants and the increasing likelihood of personality differences although there were uneven sample sizes.

Although I used Linguistic Inquiry and Word Count (LIWC) software to examine word choice statistically, this study's external and internal validity was an issue. The 4,500-word families in the program's dictionary served their purpose of sorting between positive and negative emotional words and cognitive processes but were anticipated to lack contextual identification capabilities. An example of this was when a participant

stated a negative before a positive, coded as negative emotionality. For example, "No worries" scores highly in negative wording and reflected no positive wording, though it was meant to be. This error must be considered when conceptualizing the data.

## **Theoretical Foundations of the Study**

Two theories guided this dissertation. The first was the incremental theory, which asserted that the self would be seen as a system of malleable qualities that evolves over time through the individual's efforts (Dweck & Leggett, 1988). The incremental theory proposes that desirable qualities can be cultivated so that people can be more competent, institutions can be more responsible, the environment can be healthier, and the world can be made more just (Dweck & Leggett, 1988). Historically, the incremental theory has been generalized as the basis of a growth mindset, that sees failure as a lack of current ability but is a controllable attribute. In the present study, I explored how the incremental theory could be applied to improve mental toughness and resilience in employees as suggested by previous research (Jones et al., 2002; Duckworth et al., 2007; Haimovitz & Dweck, 2018; Ajilchi et al., 2022).

The second research theory guiding this project was the cognitive affective process (CAP) model. This theory was designed as a broad processing framework for analyzing individual differences and basic processes such as self-regulation, self-control, and proactive behavior over time (Mischel & Ayduk, 2004). The CAP model has been further described as the foundation of thought for individuals to channel positive control expectancies. In this model, positive control expectancies motivate people to persist in the face of challenges and improve their behaviors in response to negative situations (Mischel & Ayduk, 2004). The present study explored mental toughness and its processes

through the lens of the CAP model and its five assumptions: challenge appraisal, threat appraisal, emotional response, coping strategies, and performance outcomes. Like the incremental theory, the CAP model highlights mental toughness's malleable nature. The CAP model emphasizes that mental toughness can be developed and improved through an individuals' perception of the challenge, their emotional response to it, the coping mechanisms used, and the positive performance outcomes resulting from this cognitive process.

Biblically, the incremental theory can be related to Proverbs 15:22, which states, "Plans fail for lack of counsel, but with many advisers, they succeed." This scripture emphasizes the importance of seeking counsel and learning from others, which aligns with the idea that qualities can be cultivated and improved over time through individual efforts and learning from failures. With the right tools, this biblical perspective goes hand in hand with the perspective that mental toughness and resilience are malleable personal attributes. Similarly, the CAP model can be related to Romans 12:2, which states, "Do not conform to the pattern of this world but be transformed by the renewing of your mind. Then you will be able to test and approve what God's will is—his good, pleasing and perfect will." This scripture reaffirms that transformation of the mind and positive control expectancies can motivate individuals to change their thinking and behavior. As individuals identify and face challenges through the life course, this biblical perspective on the CAP model reminds us that God's will enables them to perceive and respond in a more emotionally regulated way.

#### **Definition of Terms**

The following is a list of definitions of terms used in this study.

- 1. Grit- refers to a psychological trait characterized by perseverance and passion for long-term goals. Individuals high in grit are more prone to accomplishing long-term objectives and attaining lasting success, even amidst adversities and obstacles, with grit being a pivotal determinant of remarkable achievements, underscoring the significance of unwavering perseverance and commitment alongside inherent aptitude (Duckworth, 2007).
- 2. Growth mindset- suggests that individuals who believe in their ability to grow and develop through effort and practice are more likely to embrace challenges, persist in the face of setbacks, and achieve higher levels of success (Dweck, 2017; Jang, Ahn & Kwon, 2020). This mindset emphasizes the belief that abilities can be cultivated through learning and experience (Dweck, 2017).
- **3. Mental toughness** refers to an individual's ability to cope with stressors, pressures, and setbacks effectively. It involves qualities such as perseverance, determination, and the ability to maintain focus and motivation in challenging situations (Perry et al., 2021; Jones et al., 2002).
- 4. Military- is defined as the collective organization or institution responsible for national defense and security. The United States military encompasses several branches, each with its own set of distinct roles and responsibilities: the U.S. Army, U.S. Air Force, U.S. Navy, U.S. Marines, and U.S. Coast Guard.
- **5. Quitting Intention** is defined as an individual's intent to quit due to internal or external factors. The intention to quit can be influenced by factors including work-life balance, perceived opportunities for advancement, relationship with coworkers and supervisors, compensation, and job satisfaction. Employees with a

better sense of satisfaction will then lead to a greater work-life balance environment, and employees feeling satisfied with their jobs reduces their intention to quit their organization (Gallup, 2016).

6. Resilience- is defined as an individual's ability to bounce back from adversity, adapt to change, and maintain well-being despite challenges (Perry et al., 2021; Jones et al., 2002). Resilient individuals are more likely to effectively cope with stress, overcome obstacles, and recover from setbacks (Martinez-Marti & Ruch, 2017). Building resilience involves developing psychological resources, such as optimism, self-efficacy, and problem-solving skills (Martinez-Marti & Ruch, 2017).

## Significance of the Study

The significance of this study extended to organizations and the broader field of Industrial/Organizational psychology for several compelling reasons. First, talent attraction and retention are critical factors for the effective functioning of businesses and are currently prominent work trends (Alex, 2021). Understanding the relationship between mental toughness/resilience and burnout in law enforcement and military personnel, as demonstrated by previous research, is important (Adams & Mastracci, 2020; Anand et al., 2022; Bevan et al., 2022; Cummings et al., 2021). These studies have revealed an inverse correlation between these factors, suggesting that higher levels of burnout are associated with adverse outcomes such as early retirement, job changes, marital conflicts, and higher rates of depression, substance abuse, and suicide in these populations (Lebares et al., 2018).

However, whether similar phenomena exist across the entire workforce or are specific to first responder professions remained unclear. By expanding upon this knowledge base, the present study aimed to contribute to the field of psychology and provide valuable insights to employers that benefit all employees. This research shed light on the broader implications of grit, resilience, and burnout in different occupational contexts, enabling organizations to develop effective strategies for talent management, employee well-being, and productivity.

### **Summary**

In conclusion, when thinking about work organizations as a whole and the individuals that make up them, it is important to understand the relationship between employee mental health, resilience, and an employer's role in nurturing a supportive workplace. This study aimed to improve the understanding of how organizations can create and implement interventions to promote employee well-being, enhance retention rates, and foster a resilient workforce. My goal was that this mixed-method study would identify the factors contributing to workplace resilience, such as a supportive work environment, strong leadership, and access to resources (as disclosed in participants' written stories about their workplace experiences with adversity). The study's findings help organizations develop strategies to promote employee resilience, such as training programs, mentorship, and employee support programs.

The theoretical framework of this study was based on the incremental theory and the cognitive affective process model. Both theories connected how an individual perceives, emotionally responds, and behaviorally reacts to a challenging event.

Researchers have determined that resilient employees are better able to cope with stress and adversity, which can lead to improved well-being and mental health outcomes (Stogner, Miller & McLean, 2020). By promoting resilience in the workplace, organizations can improve the overall well-being of their employees. Resilience can lead to improved job performance, as employees can better adapt to changes and overcome challenges over their life course, benefiting both the employee and the organization.

Implications of the study also inform policy and decision-making related to workplace processes, such as the development of guidelines and best practices for promoting resilience in the workplace. Overall, a study about resilience in the workplace has significant implications for improving employee well-being and organizational performance. Mental toughness training can effectively promote job satisfaction and improve employee retention in the workplace. It was important to delve into the existing research on mental toughness in the workplace. The following literature review explores the current understanding of the factors influencing mental toughness, the strategies organizations employ to foster it, and the broader implications of enhancing employee well-being and organizational effectiveness.

#### CHAPTER 2: LITERATURE REVIEW

#### Overview

Mental toughness and resilience in the workplace are important factors contributing to individual and organizational success (Caza & Bardes, 2016). Research in this area explores the psychological attributes and skills that enable individuals to cope with stress (Sin & Lyubomirsky, 2009), adapt to challenges (Ryff & Singer, 2020), and maintain high levels of performance in demanding work environments (MacCormack & Korn, 2020). Mental toughness refers to psychological characteristics that allow individuals to thrive under pressure, persevere through difficulties, and maintain focus and motivation in adverse situations (Perry et al., 2021). Resilience, on the other hand, is the ability to bounce back from setbacks, adapt to change, and recover quickly from stressful situations. These concepts are closely related with mental toughness and are often considered a component of resilience (Perry et al., 2021). For this dissertation, the terminology will be utilized interchangeably.

Certain personality traits, such as optimism, self-efficacy, and locus of control are associated with mental toughness and resilience (Martinez-Marti & Ruch, 2017). Individuals with these traits tend to view challenges as opportunities for growth and have a greater belief in their ability to overcome obstacles. Cognitive skills, such as positive self-talk, cognitive flexibility, and problem-solving abilities, are crucial in developing mental toughness and resilience (Gucciardi et al., 2021). These skills help individuals reframe negative experiences, adapt to new situations, and find effective solutions to problems. Social support from colleagues, supervisors, and organizational resources is essential for fostering resilience in the workplace (Luthans et al., 2006). A strong support

network can provide individuals with emotional encouragement, practical assistance, and a sense of belonging, which helps them navigate stressful situations. Various interventions and training programs have been designed to enhance mental toughness and resilience including, but not limited to, Military Resilience Training, Employee Assistance Programs (EAPs), Leadership Development Programs, Mindfulness-Based Stress Reduction (MBSR), and Cognitive Behavioral Therapy (CBT) (Denkova et al., 2020). These interventions often include stress management techniques, goal setting, mindfulness practices, and cognitive-behavioral strategies. Denkova et al. (2020) suggest that such programs can improve individuals' ability to cope with workplace challenges.

Studies have shown that individuals with higher levels of mental toughness and resilience are more likely to perform better and achieve their goals in the workplace (Eskreis-Winkler et al., 2014). They are better equipped to handle work-related stress and maintain focus and productivity levels (Eskreis-Winkler et al., 2014). Mental toughness and resilience have been linked to higher psychological well-being and job satisfaction (Lin, Liu, & He, 2020). Individuals with these attributes were also cited to experience less burnout, have better psychological health, and report greater satisfaction with their work and career. Adapting to change is crucial in today's dynamic work environments. Mental toughness and resilience enable individuals to navigate organizational changes, such as restructuring or technological advancements, with greater ease and effectiveness. Leaders and team members who demonstrate mental toughness and resilience can inspire and motivate others, improving team performance and cohesion.

In summary, research on mental toughness and resilience in the workplace has highlighted the importance of psychological attributes and skills in managing stress,

adapting to challenges, and maintaining high performance. Individuals and organizations can embrace productivity, well-being, and adaptability in demanding work environments by cultivating mental toughness and resilience.

## **Description of Search Strategy**

The search strategy for this dissertation involved a systematic and comprehensive exploration of the literature. Multiple databases were utilized to ensure a comprehensive search of PubMed, PsycINFO, Google Scholar, the King James, the New Living Translation, and the New International Versions of the Holy Bible for biblical research purposes. These databases were selected based on their extensive coverage of scholarly articles and publications in psychology, social psychology, performance psychology, and organizational behavior.

Search terms and keywords were combined to identify relevant research articles. The search terms included variations of keywords including "resilience," "mental toughness," "grit," "stress," "burnout," "talent attrition," and "workplace satisfaction." "Mental toughness" was also used interchangeably with "mentally tough" and "mental tough." Boolean operators (AND, OR) were used to combine these terms effectively and narrow down the search results.

The Biblical research process focused on the Biblical keywords of "biblical perspectives," "spirituality," and "faith-based interventions." These terms were combined with the aforementioned psychological terms to capture relevant research exploring the intersection of resilience, mental health, and biblical principles. Multiple versions of the Holy Bible were used for their varying strengths and applications, for example, the King

James Version (KJV) for its historical and traditional significance, the New International Version (NIV) for its ease of readability, and the New Living Translation (NLT) for its expressiveness and engaging language.

I established this predefined set of inclusion and exclusion criteria to ensure rigor and consistency in the literature search process. The screening process included applying the inclusion and exclusion criteria when reviewing titles, abstracts, and full texts of potentially relevant articles. The inclusion criteria included studies conducted on human participants, articles available in full-text format, and empirical research studies (quantitative, qualitative, and mixed-methods). The exclusion criteria included non-English articles, animal studies or studies conducted on non-human subjects, articles with restricted access or unavailable in the full-text format, and articles not directly related to my topics of interest.

To further refine the search, certain delimitations were applied. The search was limited to peer-reviewed articles published in English within the past five years (2018-2023). Additional searches came from reviewing the reference lists of relevant articles and dissertations to identify additional sources, which helped ensure a comprehensive literature search approach. The keywords "resilience," "mental toughness," "grit," "stress," "burnout," "talent attrition," and "workplace satisfaction" were also used here.

#### **Theoretical Framework**

### **Incremental Theory**

The article "Implicit Theories of mental toughness: Relations with Cognitive, motivational, and behavioral correlates" by Gucciardi et al. (2021) was a primary resource in understanding incremental theory and mental toughness in developing my

research questions. This theory reflects individuals' beliefs about the malleability of personal attributes and has significant implications for cognitive, motivational, and behavioral aspects.

Incremental theory, commonly known as the growth mindset, suggests that individuals believe personal qualities and abilities can be developed and improved through effort and learning. People who exercise an incremental theory tend to view challenges as opportunities for growth and are more likely to persist in the face of obstacles (Haimovitz & Dweck, 2017). These individuals typically believe they can enhance their mental toughness with dedication and practice. This mindset promotes a belief in personal agency and the idea that individuals have control over their development.

Individuals who hold an incremental theory are more likely to embrace challenges, persist in adversity, and engage in effective strategies for self-improvement (Liew et al., 2019). They exhibit a growth-oriented mindset that facilitates continuous development and learning (Jang, Ahn & Kwon, 2020). This mindset can be particularly beneficial in highly demanding domains such as athletics, emergency response, and business, where mental toughness is crucial for success and optimal performance (Gucciardi et al., 2021; Jones et al., 2002).

The study conducted by Gucciardi et al. (2021) explored the associations between these implicit theories of mental toughness and various cognitive, motivational, and behavioral factors. By understanding the incremental theory, researchers and practitioners can gain insights into individuals' mindsets and develop interventions to promote a

growth-oriented perspective, ultimately fostering greater mental toughness and resilience.

The basis of this dissertation will be through the lens of incremental theory.

## **Incremental Theory Propositions**

The incremental theory is based on four underlying assumptions. These assumptions include believing in the malleability of abilities, where individuals believe their skills, intelligence, and capabilities can be improved through effort, effective strategies, and learning. The theory also assumes that effort and persistence are crucial in achieving growth and success. Additionally, it posits that individuals have the potential for growth and change across various domains, including intelligence and skills, rather than having fixed or predetermined abilities. Lastly, the theory suggests that individuals with an incremental mindset are open to learning, actively seek challenges, and value feedback as an opportunity for growth and improvement. These four assumptions collectively form the core principles of the incremental theory, emphasizing the potential for growth, the significance of effort, and the value of embracing challenges and learning opportunities (Blackwell, Trzesniewski, & Dweck, 2007).

## **Incremental Theory Applications**

One must focus on developing particular skills and competencies to cultivate mental toughness. Practical applications involve implementing deliberate practice strategies, which involve engaging in purposeful and focused acts to enhance specific aspects of mental toughness. These strategies encompass refining self-regulation abilities, emotional control, positive self-talk, visualization techniques, and building resilience to setbacks.

In a study conducted by Jones, Hanton, and Connaughton (2002), they explored the concept of mental toughness among elite sports performers. The researchers employed a qualitative research design, using semi-structured interviews to gather data from a sample of elite athletes. They used thematic analysis to identify this population's common themes and patterns related to mental toughness. The results revealed that mental toughness encompassed psychological attributes such as resilience, confidence, focus, determination, and coping skills. Furthermore, mental toughness was characterized by maintaining performance under pressure, overcoming setbacks, and sustaining motivation.

The study's implications emphasize the importance of mental toughness in highperformance sports and provided valuable insights into the psychological characteristics
that contribute to success. Understanding mental toughness can inform the development
of interventions and training programs to enhance athletes' psychological skills and
resilience. The study concludes by suggesting that future research should further explore
the development, measurement, and interventions related to mental toughness and
examine its role in other domains beyond elite sports.

The incremental theory of mental toughness has several practical applications that can be implemented in various domains, including sports, education, business, and personal and professional development (Jones et al., 2002). These practical applications include mindset interventions, goal setting, and planning, resilience training, fostering a feedback and growth mindset based culture, skill development, and mentoring.

Within these domains, several strategies can be utilized to harness the potential of incremental theory. One such strategy involves the integration of mindset interventions,

which aim to cultivate a growth-oriented mindset by instilling the belief that mental toughness can be developed through effort and learning (Ajilchi et al., 2022). In a recent study conducted by Ajilchi, Mohebi, Zarei, and Kisely (2022), the researchers sought to examine the effect of mindfulness program training on mental toughness and psychological well-being among female athletes. The researchers utilized a pre-test and post-test research design and recruited 45 Iranian female athletes who were randomly assigned to either an intervention group that received mindfulness training or a control group. The mindfulness training program consisted of various mindfulness exercises and techniques. Study results showed that the participants in the intervention group demonstrated significant improvements in mental toughness and psychological well-being compared to the control group. These findings suggest that incorporating mindfulness training into the athletic training regimen can positively impact female athletes' mental toughness and overall psychological well-being.

The study's implications highlighted the potential benefits of mindfulness interventions in sports settings, offering a promising approach to enhance athletes' mental resilience and overall mental health. However, further research is needed to explore mindfulness training programs' long-term effects and optimal duration applicability to diverse populations and sports contexts. In conclusion, this study underscored the potential of mindfulness training as a valuable tool to support female athletes' mental well-being and performance, calling for continued investigation and implementation of mindfulness-based interventions in psychology.

Additionally, goal setting and planning are crucial in the incremental theory, providing individuals with a clear roadmap to channel their efforts and enhance their

mental resilience (Duckworth et al., 2007). Duckworth, Peterson, Matthews, and Kelly (2007) explored the concept of grit, defined as the combination of perseverance and passion for long-term goals. To do this, the researchers employed a mixed-methods approach, utilizing both quantitative and qualitative measures to investigate the construct of grit. They conducted multiple studies, to assess grit and its correlates, including surveys, self-report measures, and behavioral tasks. The study's results demonstrated that grit was distinct from other related traits, such as conscientiousness, and was a significant predictor of achievement outcomes across various domains, including education, military training, and sales. The findings suggest that individuals with higher grit levels are more likely to persevere and achieve long-term goals. The study's implications highlight the importance of grit in predicting success and performance in different contexts.

The concept of grit has significant implications for educational and vocational settings, as it suggests that fostering perseverance and passion may be crucial for promoting long-term achievement. Future studies in the field could focus on further understanding the mechanisms underlying grit and exploring interventions to enhance grit in individuals, ultimately leading to improved outcomes and success in various domains of life. In conclusion, this study sheds light on the construct of grit and its role in predicting long-term goal attainment, providing valuable insights for both research and practical applications in areas such as education, work, and personal development.

With similar findings and implications, Haimovitz and Dweck (2017) explored the origins of children's growth and fixed. The researchers conducted studies involving children to investigate the factors contributing to these mindsets' development. They used surveys, interviews, and experiments to gather data on children's beliefs about

intelligence, praise, and learning. The results of the studies revealed that a combination of factors, including parental beliefs, messages about intelligence, and experiences with challenges and setbacks, influences children's mindsets. The findings suggest that external influences and personal experiences can shape children's mindsets.

The study's implications highlighted the importance of fostering a growth mindset in children, as it can lead to greater motivation, resilience, and a willingness to embrace challenges. The study also calls for further research to explore additional factors that may contribute to the development of mindsets and to design interventions that promote a growth mindset in children. This study sheds light on the origins of children's mindsets and provides insights that can inform educational practices and interventions to foster positive, and influential, beliefs about intelligence and learning.

Resilience training further strengthens individuals' ability to bounce back from setbacks and adapt to challenging situations, equipping them with the necessary tools to persevere and thrive (Denkova et al., 2020). Denkova, Zanesco, Rogers, and Jha (2020) investigated whether resilience can be trained, specifically the ability to recover from stress and adversity. The researchers compared the effectiveness of mindfulness or relaxation training in improving resilience among firefighters. The study utilized a randomized controlled trial design, where participants were assigned to either a mindfulness or relaxation training group. Both groups underwent an eight-week training program. The results showed that mindfulness and relaxation training significantly improved resilience compared to the control group. However, the mindfulness training group showed greater increases in resilience compared to the relaxation training group.

These findings suggest that mindfulness and relaxation training can enhance resilience, but mindfulness training may have additional benefits. The study's implications highlight the potential of mindfulness training as an effective intervention for building resilience among firefighters and potentially in other high-stress professions. The study calls for further research to explore such training programs' long term effects and investigate the underlying mechanisms through which mindfulness enhances resilience. In conclusion, this study provides evidence that resilience can be trained and suggests that mindfulness training shows promise as a valuable tool for enhancing resilience in high-stress occupations.

The study conducted by Gucciardi et al. (2021) aimed to examine the role of mental toughness as a psychological factor influencing behavioral perseverance in special forces selection. The researchers employed a quantitative research design by administering the Mental Toughness Questionnaire 48 (MTQ48) and the Behavioral Perseverance Task (BPT) to a sample of 143 individuals undergoing special forces selection. The results indicated a statistically significant, positive correlation between mental toughness and behavioral perseverance, suggesting that individuals with higher levels of mental toughness were more likely to display greater behavioral perseverance during the selection process. These findings have implications for the selection and training of special forces personnel, as mental toughness could be considered an important criterion in identifying individuals who are more likely to persist and succeed in the demanding challenges of special forces training.

Moreover, fostering a feedback culture and a growth mindset encourages continuous improvement and learning, creating an environment that nurtures mental

You Think to Fulfill Your Potential," Dweck explored the concept of mindset and its impact on personal growth and achievement. The book delves into fixed and growth mindsets, where individuals with a fixed mindset believe that abilities and intelligence are fixed traits, while those with a growth mindset believe that skills and intelligence can be developed through effort and learning. Dweck (2017) discusses various case studies, research findings, and practical strategies to foster a growth mindset and promote personal development. The implications of the research within this book highlight the importance of adopting a growth mindset for unlocking one's potential and achieving success in various domains. It also emphasizes the power of embracing challenges, persisting through obstacles, and embracing opportunities for growth and learning.

Skill development initiatives and targeted monitoring allow individuals to acquire and refine the specific competencies required to excel in their chosen domains (Aryanto & Larasati, 2020). By incorporating these practical applications, individuals can unlock their potential, enhance their mental toughness, and achieve remarkable personal and professional growth within various contexts.

In a study conducted by Rangel, King, and Muldner (2020), researchers investigated the effects of an incremental mindset intervention on effort and performance during programming activities. This study was conducted using an experimental research design, where participants were randomly assigned to either the intervention group receiving an incremental mindset intervention or the control group. The intervention aimed to promote the belief that computer programming skills can be developed through effort and practice. The results indicated that the intervention group demonstrated

increased effort during programming activities compared to the control group and that the incremental mindset intervention influenced participants' motivation and effort.

The researchers found that using mindset interventions could positively impact individuals' beliefs, efforts, behaviors, and performance regarding programming. This study demonstrated that by promoting the belief that people gain mental toughness through effort and learning, interventions can be designed to cultivate a growth mindset. Cultivating a growth mindset involves providing individuals with the understanding that their abilities and qualities are not fixed but are improvable over time. Strategies such as reframing challenges as opportunities for growth, encouraging effort and persistence, and teaching effective learning strategies help individuals develop a growth-oriented mindset and enhance their mental toughness (Rangel, King & Muldner, 2020).

Setting specific, challenging, and achievable goals is important to developing mental toughness. Individuals with an incremental theory are more likely to embrace challenging goals and persist in their pursuit (Bai & Wang, 2023). Practical applications include teaching individuals how to set SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals, creating action plans with step-by-step strategies, and fostering self-monitoring, self-regulating, and evaluating progress. According to Bai and Wang (2023), a growth mindset in Chinese students learning English predicted goal setting and planning. Students who reported low goal setting and planning levels displayed lower levels of language learning achievement.

In the study conducted by Bai and Wang (2023), the researchers examined the role of growth mindset, self-efficacy, and intrinsic value in self-regulated learning and English language learning achievements. The researchers utilized a quantitative research

design and collected data through surveys administered to English language learners. Six hundred ninety  $4^{th}$  grade Chinese students learning the English language were administered surveys to assess their growth mindset, self-efficacy beliefs, intrinsic value, self-regulated learning strategies, and English language learning achievements. Statistically, goal setting and planning was predicted by growth mindset ( $\gamma = .41$ , p < .001), self-efficacy beliefs ( $\gamma = .21$ , p < .001), and intrinsic motivation ( $\gamma = .19$ , p = .001) (Bai & Wang, 2023). Consistent with the research question, it was determined that students' intrinsic value significantly predicted effort regulation and goal setting and planning. The findings of this study suggest that individuals with a growth mindset, high self-efficacy, and intrinsic value are more likely to engage in self-regulated learning, i.e., goal setting and planning, and achieve better outcomes in English language learning.

Resilience, the ability to bounce back from setbacks and adapt to adversity, is closely related to mental toughness. The practical applications of resilience involve equipping individuals with tools and strategies to strengthen their resilience. These measures may encompass teaching effective coping mechanisms, stress management techniques, mindfulness practices, and fostering social support networks.

Thus far, the research suggests that the actions of people in one's life foster a growth mindset (Yeager & Dweck, 2020). Providing individuals with constructive feedback that focuses on effort, improvement, and learning rather than fixed traits or outcomes can foster a growth mindset and enhance mental toughness. Encouraging a growth mindset culture within organizations, teams, or educational settings can promote a supportive and collaborative environment where individuals feel empowered to take risks, learn from mistakes, and continuously develop their mental toughness (Kapasi &

Pei, 2022). It should go without stating that the environment we strive to cultivate is non-judgmental, collaborative, and communicative in individuals' growth potential (Dweck, 2017).

Mentors and role models play a significant role in fostering mental toughness. Practical applications include pairing individuals with mentors who exemplify a growth mindset and demonstrate mental toughness. Mentors can provide guidance, support, and share their experiences of overcoming challenges, thus inspiring mentees to develop their mental toughness. In the study by Jang, Ahn, and Kwon (2020), researchers sought to explore the relationships between implicit beliefs and mental toughness in adolescent football players and their coaches (mentors of the sport). The researchers employed a quantitative research design and collected data through surveys administered to players and coaches. The surveys assessed participants' implicit beliefs and mental toughness. The study results revealed a positive correlation between growth mindset (an implicit belief) and mental toughness in football players and coaches. This study's findings provided further evidence that individuals with a growth mindset are more likely to exhibit higher levels of mental toughness.

The study's implications highlight the importance of fostering a growth mindset in players and coaches as a potential strategy to enhance mental toughness in sports. The study suggests that interventions promoting growth mindset beliefs could contribute to developing mental toughness. This study also provides insights into the relationship between implicit beliefs and mental toughness in adolescent football players and coaches, suggesting avenues for future research and interventions in sports psychology.

Overall, the practical applications of the incremental theory of mental toughness involve creating environments that promote a growth mindset, setting challenging goals, providing feedback that focuses on effort and learning, enhancing resilience, fostering skill development through deliberate practice, and leveraging mentoring and role modeling. It is purported that by implementing these applications, individuals can enhance their mental toughness and navigate challenges with a growth-oriented and resilient mindset (Karlen et al., 2019).

Generally speaking, mental toughness is seen as a psychological factor that influences behavioral perseverance and success in challenging situations. The studies reviewed shared a common focus on mental toughness and its practical applications in various domains. Each study employed diverse research methodologies, including qualitative designs (Jones, Hanton, and Connaughton, 2002), mixed-methods approach (Duckworth et al., 2007), and quantitative research (Bai & Wang, 2023; Gucciardi et al., 2021; Jang, Ahn, and Kwon, 2020), to investigate mental toughness and its related constructs. Researchers in this field have explored factors such as resilience, growth mindset, goal setting, feedback, skill development, and mentoring as important components of mental toughness development. The findings across studies suggest that fostering a growth-oriented mindset, setting challenging goals, providing constructive feedback, enhancing resilience through training, deliberate practice, and utilizing coaching/ mentoring can significantly contribute to developing mental toughness and promoting success and well-being in different contexts.

The practical applications of the incremental theory of mental toughness offer valuable insights for educators (Haimovitz & Dweck, 2017; Kapasi & Pei, 2022),

coaches (Jang et al., 2020; Karlen et al., 2020), organizations (Denkova et al., 2020; Eskreis-Winkler et al., 2014; Lin et al., 2020; Luthans et al., 2006; Yeager & Dweck, 2020), and individuals seeking to enhance their mental resilience and overall performance (Gucciardi et al., 2021; Martinez-Marti & Ruch, 2017; Perry et al., 2021). Despite the commonalities in findings and implications, each study focused on distinct populations, such as elite female athletes, special forces personnel, elementary school students, and adolescent football players, leading to mild nuances of mental toughness development within these domains. These studies contribute to an understanding of the multifaceted nature of mental toughness and offer a wide range of practical strategies for its cultivation and application in diverse settings.

### **Incremental Theory Rationale**

Regarding mental toughness, the incremental theory plays a pivotal role in shaping individuals' attitudes, behaviors, and overall mindset (Stamatis et al., 2020). The significance of the incremental theory lies in its immense potential to foster motivation, resilience, and adaptive behaviors, thus contributing to the development of individuals' mental toughness. Incorporating the incremental theory in the study of mental toughness proves highly appropriate for several reasons, further solidifying its relevance and importance in this field of research.

Development and Improvement: The incremental theory recognizes that mental
toughness can be developed and improved over time (Duckworth et al., 2007). It
emphasizes that individuals can enhance their resilience, perseverance, and ability
to cope with challenges through intentional effort and learn from setbacks. This

- perspective promotes a belief in personal growth and motivates individuals to strive for continuous improvement.
- 2. Embracing Challenges: Individuals with an incremental mindset tend to embrace challenges rather than shy away (Dweck, 2017). They see challenges as opportunities for growth and learning, rather than threats to their abilities or intelligence. This mindset encourages individuals to take on difficult tasks, push their limits, and view setbacks as temporary obstacles that can be overcome with effort and adaptation.
- 3. Effort and Persistence: The incremental theory highlights the importance of effort and persistence in achieving success (Haghighi & Gerber, 2019). It suggests that mental toughness is not solely dependent on innate abilities but shaped by one's willingness to work hard, practice consistently, and persevere in facing difficulties. Individuals with this mindset are likelier to put in the necessary effort and maintain motivation even when faced with obstacles or setbacks.
- 4. Learning from Feedback: A key aspect of the incremental theory is the emphasis on learning from feedback and using it as a tool for growth (Dweck, 2017). Individuals with an incremental mindset see positive and negative feedback as valuable information to help them improve and develop their mental toughness. They are more likely to embrace constructive criticism, learn from their mistakes, and adapt their strategies accordingly.
- Resilience and Adaptability: The incremental theory promotes resilience and adaptability as essential components of mental toughness (Georgoulas-Sherry & Hernandez, 2022). It encourages individuals to view failures or setbacks as

learning opportunities and to bounce back stronger from adversity. By fostering a belief in the capacity for personal growth, the incremental theory helps individuals develop the resilience to persevere through challenges and the adaptability to adjust their approaches as needed.

Overall, the incremental theory of mental toughness provides a framework that supports the development of a growth mindset. By cultivating the belief that abilities are enhanced through effort and learning, individuals are more likely to exhibit the characteristics associated with mental toughness and strive for continuous improvement in the face of challenges.

# **Cognitive Affective Process Model**

The Cognitive Affective Process Model (CAP Model), proposed by Jones, Hanton, and Connaughton in 2002, provides a compelling theoretical framework for understanding the emergence and expression of mental toughness. The CAP Model elucidates how individuals develop and exhibit mental toughness by emphasizing the crucial role of cognitive appraisal and emotional response in challenging situations. The model highlights the intricate interplay between cognitive processes and affective states, offering valuable insights into the psychological mechanisms that underpin mental toughness and its manifestation in individuals' thoughts, emotions, and behaviors (Jones et al., 2002).

### **Cognitive Affective Process Model Propositions**

The Cognitive Affective Process Model (CAP Model) provides a framework for understanding mental toughness and its underlying processes (Jones et al., 2002; Crust et al., 2019). This model offers valuable insights into how individuals perceive and respond

to difficult situations, ultimately shaping their ability to thrive in adversity. The CAP Model introduces several key suggestions and assumptions that form the foundation of mental toughness (Jones et al., 2002; Crust et al., 2019). We can better understand the factors contributing to developing and expressing mental toughness by exploring the listed suggestions and assumptions.

- 1. Challenge Appraisal: The CAP Model suggests that mental toughness begins with appraising a situation as challenging. Individuals with mental toughness perceive demanding situations as opportunities for growth and improvement, rather than threats (Jones et al., 2002; Crust et al., 2014). They view challenges as something to be embraced and are more likely to adopt a positive and proactive mindset when faced with difficulties.
- 2. Threat Appraisal: The model also acknowledges that individuals may initially appraise a situation as threatening. However, people demonstrate mental toughness when they quickly reframe their perception and transform the initial threat appraisal into a challenge appraisal. This shift in perspective enables them to approach the situation with resilience, determination, and a belief in their ability to overcome obstacles (Jones et al., 2002).
- 3. Emotional Response: The CAP Model recognizes the crucial role of emotions in developing mental toughness. When individuals appraise a situation as challenging, they experience positive emotions such as excitement, enthusiasm, and confidence. These emotions facilitate their engagement with the task, enhance their motivation, and contribute to their ability to persevere through adversity (Jones et al., 2002; Crust et al., 2014).

- 4. Coping Strategies: The CAP Model highlights the importance of effective coping strategies in mental toughness. Individuals with mental toughness employ various cognitive and behavioral strategies to deal with challenges and setbacks. These strategies may include positive self-talk, goal setting, visualization, attention control, and problem-solving. By utilizing adaptive coping strategies, individuals can regulate their emotions, maintain focus, and make optimal decisions under pressure (Jones et al., 2002; Crust et al., 2014).
- 5. Performance Outcomes: The final component of the CAP Model involves performance outcomes. Mental toughness influences an individual's performance by enhancing their ability to sustain effort, maintain focus, and perform at their best under demanding circumstances. Mental toughness is believed to positively affect performance by facilitating effective cognitive processes, emotional regulation, and adaptive coping strategies (Jones et al., 2002; Crust et al., 2019).

# **Cognitive Affective Process Model Applications**

In a systematic review and meta-analysis conducted by Lin, Lu, Chen, and Hsu (2022), the researchers sought to investigate the relationship between athlete stress and burnout, focusing on the cognitive affective process (CAP) model framework. By examining a comprehensive pool of 48 empirical studies, this review found compelling evidence supporting the CAP Model's core propositions. The studies analyzed consistently revealed a significant positive correlation between athlete stress and burnout, aligning with the CAP Model's emphasis on the interconnectedness of cognitive appraisal and emotional response in challenging situations. Athletes who experienced higher stress levels, particularly in response to training demands, competitive pressures, or personal

factors, exhibited an increased susceptibility to burnout, as highlighted by the model's emphasis on the importance of challenge and threat appraisals. Moreover, the meta-analysis yielded a moderate-to-large effect size, statistically reinforcing the meaningful association between athlete stress and burnout, in line with the CAP Model's predictions. This review highlighted the relevance of the CAP Model in understanding the relationship between athlete stress and burnout. It emphasized the importance of implementing targeted interventions to manage stress and cultivate resilience, thus safeguarding athlete well-being and optimizing performance.

Another domain that the CAP Model has been applied to is military training programs. These programs integrate the CAP Model to enhance soldiers' mental toughness and resilience in high-stress environments. By instilling a challenge appraisal mindset, soldiers are provided training to become better equipped to handle challenging situations and maintain focus during missions. Additionally, teaching adaptive coping strategies may help soldiers regulate their emotions, make sound decisions, and cope with the demands of their roles.

The article "Battle Buddies: Rapid Deployment of a Psychological Resilience Intervention for Health Care Workers During the Coronavirus Disease 2019 Pandemic" by Albott et al. (2023) explored the implementation of the Battle Buddies program as a psychological resilience intervention for healthcare workers during the COVID-19 pandemic. While the article does not explicitly mention the Cognitive Affective Process (CAP) Model, the concepts and strategies employed in the Battle Buddies program exhibited stark resemblances to elements within the CAP Model. The program aimed to enhance healthcare workers' coping skills and emotional well-being, which aligns with

the CAP Model's emphasis on the interconnectedness of cognitive appraisal and emotional response in developing resilience.

The Battle Buddies intervention, in this case, emphasized the importance of peer support and cognitive reappraisal techniques to foster adaptive coping strategies. By pairing healthcare workers into supportive teams, the intervention promoted challenge appraisals, encouraged participants to view their stressful experiences as opportunities for growth, and helped individuals perceive demanding situations as opportunities for improvement rather than threats. Additionally, the Battle Buddies intervention addressed emotional responses by providing a safe space for healthcare workers to express their emotions and engage in other emotional regulation techniques. By fostering positive emotional responses, the intervention complemented the CAP Model's recognition of emotions as vital contributors to developing resilience.

Although the Battle Buddies intervention did not explicitly reference the CAP Model, its incorporation of cognitive appraisal and emotional regulation aligns with key elements of the model. The intervention's emphasis on peer support, challenge appraisal, and emotional responses demonstrates a practical application of resilience principles, potentially benefiting healthcare workers' psychological well-being during challenging times such as the COVID-19 pandemic. The Battle Buddy system is highly scalable, has no cost, and requires very few resources, making it easy to implement and very beneficial, based on participant anecdotal statements (Albott et al., 2023).

In the study conducted by Makransky and Petersen (2021), researchers presented the cognitive affective model of immersive learning (CAMIL), which is a theoretical framework for understanding learning in immersive virtual reality (IVR) environments.

The study's primary purpose was to investigate how combining cognitive and affective processes influenced learners' engagement and knowledge acquisition in IVR settings.

The authors reviewed existing literature on immersive learning, cognitive psychology, and affective processes. They identified gaps in current models and proposed the CAMIL model to address the shortcomings.

Similar to the study conducted by Albot et al (2023), Makransky and Petersen (2021) used the CAMIL model to incorporate elements from cognitive and affective theories, while offering insights into how learners' cognitive engagement and emotional experiences interact in immersive learning environments. As expected, the findings demonstrated that the immersive learning process intertwined cognitive and affective factors. The CAMIL model highlights the importance of learners' emotional states in shaping their cognitive processes and ultimately impacting learning outcomes. The key takeaway from this study was that, by incorporating the principles of the CAMIL model, educators can create immersive and emotionally engaging learning experiences that facilitate deeper learning and knowledge retention (Makransky & Petersen, 2021). Integrating cognitive and affective elements in the model provided a holistic understanding of immersive learning experiences.

In a study conducted by Mendoza-Denton et al. (2020), the researchers aimed to explore how cultural differences influence social behavior through the lens of the Cognitive-Affective Processing Model. The research investigated how individuals from different cultural backgrounds process and respond to social situations while focusing on the interconnectedness between cognitive and affective processes. This study was unique in that cross-cultural psychological research and experimental methods were used to

collect data from individuals representing diverse cultural groups. Cognitive and affective responses were measured through self-report survey measures, behavioral observations, and physiological indicators, which allowed for a comprehensive assessment of the CAP processes in different cultural contexts.

The findings revealed that cultural differences significantly influenced cognitive and affective processing in social behavior. Participants from different cultural backgrounds exhibited distinct cognitive appraisals and emotional responses when navigating social situations. These differences were observed in areas such as perception of social norms, emotion regulation strategies, and preferences for social affiliation.

Based on this study, the CAP Model emphasizes the interaction between cognitive processes (such as cognitive appraisals, beliefs, and attributions) and affective states (emotions, feelings) in shaping an individual's thoughts, emotions, and behaviors. The CAP Model can offer valuable insights into how cultural differences influence social interactions' cognitive and affective processes.

Overall, the studies referenced in this section incorporated elements related to the CAP Model, emphasizing the interaction between cognitive processes and affective states in shaping individuals' thoughts, emotions, and behaviors. Though similar in purpose, they differed in how this was accomplished. The domains of the investigation were different and represented a wide range of perspectives: athlete stress and burnout (Lin et al., 2022), military training programs, psychological resilience intervention for healthcare workers (Albott et al., 2023), immersive learning in virtual reality environments (Makransky & Petersen, 2021), and cross-cultural social behaviors (Mendoza-Denton et al., 2020). The studies also utilized a variety of research methodologies, including a

systematic review and meta-analyses, theoretical model presentation, an empirical study employing surveys, behavioral observations, and even physiological indicator tracking. While two of the studies explicitly mentioned the CAP Model (Albott et al., 2023; Lin et al., 2022), the other two drew parallels with the CAP Model without explicitly referencing it (Makransky & Petersen, 2021; Mendoza-Denton et al., 2020). These differences and opposing approaches all lead to a richer and more comprehensive understanding of the diverse applications and implications of the CAP Model in various domains of study.

# **Cognitive Affective Process Model Rationale**

The Cognitive Affective Process Model (CAP Model) is appropriate to my study because it provides a framework for understanding the development of mental toughness by incorporating cognitive appraisals, emotional responses, and coping strategies.

According to this model, mental toughness is not a fixed trait but a set of skills and attitudes that can be cultivated and strengthened over time. By perceiving challenges as opportunities for growth and personal development, individuals can initiate a transformative process that fuels their resilience and determination (Jones et al., 2002; Crust et al., 2014).

Additionally, the CAP Model emphasizes the importance of emotional regulation in cultivating mental toughness. Emotional response management is vital in shaping individuals' engagement with challenging situations. By experiencing positive emotions such as excitement, enthusiasm, and confidence, individuals can harness their intrinsic motivation and sustain their efforts in the face of adversity (Jones et al., 2002; Crust et

al., 2014). Through emotional regulation, individuals can maintain focus, manage stress, and optimize their cognitive functioning, contributing to their overall mental toughness.

The CAP Model underscores the significance of effective coping strategies in developing mental toughness. Coping strategies, such as positive self-talk, goal setting, visualization, attention control, and problem-solving, enable individuals to navigate challenges and setbacks more effectively (Jones et al., 2002; Crust et al., 2014). By employing adaptive coping strategies, individuals can regulate their emotions, maintain motivation, and make optimal decisions even in high-pressure situations. These strategies serve as powerful tools that empower individuals to overcome obstacles and optimize their performance.

Overall, the CAP Model offers valuable insight into the multifaceted nature of mental toughness. Individuals can enhance their mental toughness and unlock their full potential in demanding situations by cultivating a positive mindset, regulating emotions, and utilizing effective coping strategies. This model highlights mental toughness's dynamic and malleable nature, emphasizing that it can be developed and improved through intentional effort and practice. By understanding and applying the principles of the CAP Model, individuals can embark on a transformative journey toward greater mental resilience, perseverance, and optimal performance in all aspects of their lives (Jones et al., 2002; Crust et al., 2014).

### **Literature Review Related to Key Concepts**

Mental Toughness, Grit, and Resilience

Mental toughness, grit, and resilience are important factors contributing to individual and organizational success in the workplace (Caza & Bardes, 2016). The study conducted by Caza and Bardes (2016) was a literature review that focused on grit and its relationship with subjective career success. Grit, defined as perseverance and passion for long-term goals, has gained attention as a significant predictor of achievement and success. The review encompassed various studies that investigated the impact of grit on individuals' career outcomes, including job satisfaction, job performance, and career advancement. The findings indicated that individuals with higher grit levels tend to experience greater subjective career success, reporting higher job satisfaction and achieving career milestones. The literature review suggests that grit plays a vital role in career success and highlighted the importance of fostering grit in individuals to promote positive career outcomes.

Mental toughness refers to psychological characteristics that allow individuals to thrive under pressure, persevere through difficulties, and maintain focus and motivation in adversity (Perry et al., 2021). Resilience, on the other hand, is the ability to bounce back from setbacks, adapt to change, and recover quickly from stressful situations (Perry et al., 2021). Like the previous study referenced, Perry, Strycharczyk, Dagnall, Denovan, Papageorgiou, and Clough (2021) examined the dimensionality of the Mental Toughness Questionnaire (MTQ48) by conducting a literature review. The review encompassed studies that investigated the questionnaire's factor structure and psychometric properties. The findings revealed that while the original MTQ48 measured four dimensions of mental toughness (Control, Commitment, Challenge, and Confidence), there was inconsistency in the factor structure across studies. Some studies supported the four-

factor structure, while others proposed alternative factor structures or identified additional factors. We learn from the present study that the MTQ48 measure supported a bifactor model, indicating the presence of both multi-dimensionality and an underlying general factor. The measure provided valid measurements at both multi and unidimensional levels specifically, in applied settings with suggestions for personal development and academic research using overall scores (Perry et al., 2021).

Certain personality traits, such as optimism, self-efficacy, and locus of control, have been associated with mental toughness and resilience (Martinez-Marti & Ruch, 2017). Notably, optimism, self-efficacy, and locus of control have been significantly connected to these traits (Carver, Scheier, & Segerstrom, 2010). Optimism entails a positive outlook, perceiving challenges as surmountable, and has been linked to better coping abilities and recovery from adversity (Hjemdal et al., 2011). Similarly, self-efficacy, an individual's belief in their capabilities, has been associated with greater mental toughness and resilience (Maddi, 2007). Self-efficacy empowers individuals with a belief in their competence, leading them to approach tasks and challenges confidently. As a result, individuals with high self-efficacy are more likely to take proactive measures, persist in the face of obstacles, and ultimately experience greater success in their endeavors (Maddi, 2007).

Furthermore, an internal locus of control, indicating belief in personal control over life events, has been tied to higher mental toughness and resilience levels (Maddi, Khoshaba, & Bolt, 2008). An internal locus of control instills a sense of personal responsibility and agency, reinforcing the belief that one's actions can influence outcomes. Individuals with an internal locus of control are more inclined to take control

of their circumstances and actively seek solutions to problems, leading to heightened mental toughness and resilience levels (Maddi, Khoshaba, & Bolt, 2008).

This body of research underscores the significance of these personality traits in fostering effective coping strategies, perseverance, and overall well-being in challenging situations. These personality traits are vital in enhancing an individual's ability to navigate difficult circumstances and maintain psychological well-being. Optimism, with its positive outlook on challenges, motivates individuals to face adversities with hope and determination. A positive mindset fosters resilience, enabling individuals to bounce back from setbacks and maintain their focus on achieving goals (Hjemdal et al., 2011).

Recognition of these personality traits as important factors in mental toughness and resilience has implications across various fields. In educational settings, fostering optimism and self-efficacy in students can promote a growth mindset and willingness to embrace challenges, ultimately enhancing their learning experiences and academic achievements. In the workplace, cultivating an internal locus of control can encourage employees to take ownership of their responsibilities and persevere through work-related challenges, contributing to higher job satisfaction and performance.

Cognitive skills, including positive self-talk, cognitive flexibility, and problem-solving abilities, are crucial in developing mental toughness and resilience (Gucciardi et al., 2021). Social support from colleagues, supervisors, and organizational resources is also essential for fostering resilience in the workplace (Luthans et al., 2006). The study by Luthans, Vogelgesang, and Lester in 2006 investigated the development of resiliency within individuals in the workplace. Their research aimed to explore the effectiveness of interventions in enhancing employees' psychological capital, while focusing on resiliency

in the context of human resource development. The researchers aimed to understand how interventions targeting psychological capital could positively impact employees' resilience levels in the workplace.

To achieve this, the researchers employed a mixed-methods approach where participants underwent a psychological capital intervention program to cultivate and enhance their resiliency. Quantitative measures were used to assess changes in participants' levels of resiliency before and after the intervention. Qualitative data was also collected through interviews and focus group discussions to gain insight into participants' perceptions and experiences regarding the intervention's impact on their psychological capital.

The study's findings indicated a significantly positive impact of the psychological capital intervention on participants' resiliency levels. Following the intervention, employees exhibited increased levels of resiliency, as evidenced by improved coping strategies, positive adaptation to challenges, and a heightened sense of self-efficacy. The qualitative data gained further supported the effectiveness of the intervention, with participants reporting enhanced emotional well-being, better stress management, and increased job satisfaction.

Studies have shown that individuals with higher levels of mental toughness and resilience are more likely to perform better, achieve their goals, and experience higher levels of psychological well-being and job satisfaction in the workplace (Eskreis-Winkler et al., 2014; Lin, Liu, & He, 2020). Mental toughness and resilience also enable individuals to adapt to organizational changes and inspire and motivate others, improving team performance and cohesion (MacCormack & Korn, 2020).

Beyond the individual benefits, mental toughness and resilience also have broader organizational implications. Lin, Liu, and He (2020) found that employees with higher levels of mental toughness and resilience were more adaptable to organizational changes. These individuals demonstrated an increased capacity to navigate organizational restructuring efforts and technological advancements in the workplace, leading to smoother transitions and higher levels of overall organizational performance.

MacCormack and Korn (2020) found that leaders and team members who displayed mental toughness and resilience could inspire and motivate others, resulting in improved team performance and cohesion. These leaders and team members' ability to persevere through challenges and maintain a positive outlook positively influenced the work environment, fostering a culture of resilience and growth.

Research consistently highlights the benefits of mental toughness and workplace resilience. These benefits include enhanced individual performance (Eskreis-Winkler et al., 2014), increased psychological well-being (Gerber et al., 2013), adaptability to organizational changes (Lin, Liu, & He, 2020), and improved team dynamics (Ajilchi et al., 2022). By cultivating mental toughness and resilience, individuals and organizations can embrace productivity, well-being, and adaptability in today's demanding work environments (Eskreis-Winkler et al., 2014; Lin, Liu, & He, 2020; MacCormack & Korn, 2020)

### **Psychological Attributes/ Skills**

Psychological attributes, such as optimism, self-efficacy, and locus of control, are associated with mental toughness and resilience (Martinez-Marti & Ruch, 2017).

Individuals with these traits tend to view challenges as opportunities for growth and

strongly believe in their ability to overcome obstacles. Optimism, characterized by a positive outlook and the expectation of positive outcomes, has been linked to greater resilience and mental toughness (Martinez-Marti & Ruch, 2017).

Similarly, self-efficacy, the belief in one's capability to accomplish tasks and overcome difficulties, is positively correlated with mental toughness and resilience (Martinez-Marti & Ruch, 2017). Additionally, locus of control, which refers to how individuals perceive control over their lives, is associated with mental toughness and resilience (Martinez-Marti & Ruch, 2017). Individuals with an internal locus of control, who believe they have control over their outcomes, are likelier to exhibit greater mental toughness and resilience.

Additionally, cognitive skills play a crucial role in developing mental toughness and resilience. Skills such as positive self-talk, cognitive flexibility, and problem-solving abilities have been identified as important in cultivating these psychological attributes (Gucciardi et al., 2021). Positive self-talk, the practice of using affirming and encouraging internal dialogue, has enhanced mental toughness and resilience by promoting adaptive responses to stress and setbacks (Gucciardi et al., 2021). Cognitive flexibility, the ability to adapt thinking and behavior in response to changing circumstances, is another cognitive skill associated with mental toughness and resilience (Gucciardi et al., 2021). It allows individuals to reframe negative experiences, adapt to new situations, and find effective solutions to problems.

The skills associated with mental toughness in the workplace have received deep interest from scientists during the past three decades, as its pattern has shifted from stability-related toward process- or results-driven. Psychological resilience is crucial for

military preparedness because it contributes to how service members deal with emotional stress. We know that a distressed soldier, one unable to handle life's stressors, may be unable to conduct military operations effectively, however psychologically strong he/she is. Increasing military competence requires resilience to be enlarged. In the study conducted by Kanapeckaitė, Bekesiene, and Bagdžiūnienė (2022), the researchers focused on the relationship between psychological resilience and sustainable military competencies among reserve component soldiers of the Lithuanian Armed Forces. They investigated the mediating role of psychological skills, specifically effort, self-efficacy, and proactivity by conducting a self-assessment survey that included self-reported information, starting with demographic data and continued with responses to five constructs: (1) 10-item Connor–Davidson Resilience Scale (CD-RISC-10) (Notario-Pacheco et al., 2014); (2) 8-item Short Grit Scale (Grit-S) (Eskreis-Winkler et al., 2014), (3) proactive behavior was assessed by six items from Bateman and Crant (1993); (4) 7item self-efficacy in a military context scale of Buch, Säfvenbom, and Boe (2015); and (5) 14-item Perceived Military Competencies scale.

Quantitative data was collected and analyzed from 337 Active Lithuanian Army Personnel Reserve soldiers. The findings of their study determined that psychological resilience positively affected effort, proactivity, and self-efficacy, components of sustainable military competencies, for their population of sample reserve soldiers. Results also confirmed that psychological attributes increase along with psychological resilience, demonstrating a full mediating effect on utilizing soldiers' psychological attributes controllability principle and performance feedback (Kanapeckaitė et al., 2022). The study empirically confirms the relationship between soldiers' psychological characteristics/

attributes and perceived military (workplace) competence. This study helps other researchers understand how psychological resilience can enhance military (workplace) knowledge through other psychological skills. A practical implication of this study would be that organizations are now made aware that the reserve soldiers' (employee) readiness is not solely a technical matter but that behavioral and psychological aspects must be considered when seeking to attain a desired level of performance. Future research in other populations is needed to strengthen the argument that psychological attributes positively impact the work organization, not just the individual.

Likewise, problem-solving abilities, involving the capacity to identify and implement solutions to challenges, have been linked to higher levels of mental toughness and resilience (Gucciardi et al., 2021). By effectively utilizing these cognitive skills, individuals can also enhance their ability to cope with stress, adapt to challenges, and maintain high performance levels in demanding work environments (Denkova et al., 2020). This ability is also known as cognitive flexibility, which is the ability to adapt cognitive and behavioral strategies in response to environmental changes, allowing people to react more adaptably to stressors or life events, resulting in psychological wellbeing (Dehghani & Bahari, 2021).

In the study conducted by Dehghani and Bahari (2021), researchers explored the mediating role of cognitive flexibility in the relationship between job stress and psychological well-being among nurses in Isfahan City, Iran. They focused on how cognitive flexibility, as a psychological attribute, contributed to mental toughness in the workplace. The study aimed to understand how cognitive flexibility acts as a potential mechanism to mitigate job stress's impact on nurses' psychological wellbeing. Using a

cross-sectional correlational design, the researchers collected self-report questionnaire data from 150 registered nurses across four hospitals in Isfahan (Kashani, Chamran, Khorshid, and Hojjatieh), Iran. The findings revealed that cognitive flexibility significantly mediated the link between job stress and psychological wellbeing, indicating that nurses with higher cognitive flexibility were better equipped to cope with job-related stressors, fostering greater psychological resilience and improved mental toughness in the demanding healthcare environment. This study underscores the significance of cognitive flexibility as a vital psychological attribute contributing to mental toughness and resilience among nurses, thus emphasizing its potential role in promoting psychological wellbeing and adaptive responses to workplace challenges. The researchers in the present study concluded that when it is not possible to eliminate the source of stress, promoting cognitive flexibility can reduce the adverse effects of stress in the workplace and that sessions should be held to train cognitive flexibility in nurses and examine its impact on increasing psychological wellbeing (Dehghani & Bahari, 2021).

It should be no surprise when I mention that intense job stress can harm workers' mental and physical health, eventually leading to an array of issues, including lower productivity, less job satisfaction, and less healthy employees. In a study conducted by Padmanabhan (2021), the researcher investigated the relationship and impact of locus of control on workplace stress and job satisfaction among private-sector employees. The study aimed to explore how the psychological attribute of an internal locus of control contributes to mental toughness in the workplace by influencing employees' experiences of workplace stress and job satisfaction. A qualitative method was utilized to gather data from 65 private-sector employees through three self-report questionnaires measuring job

satisfaction, work locus of control, and workplace stress. After statistical analysis, one of the study's key results was t(63) = 3.231, p = 0.001, which is significant at 0.05. This result highlighted that employees with an internal locus of control had higher job satisfaction than those with an external locus of control (Padmanabhan, 2021).

The findings suggest that possessing an internal locus of control is associated with greater mental toughness, enabling employees to perceive control over their work circumstances and cope effectively with workplace stressors. These findings are similar to those of Dehghani and Bahari (2021), where researchers observed the mediating role of another psychological attribute promoting employee well-being and adaptive response to work-related challenges.

# **Intervention and Training Programs**

Various interventions and training programs, such as Master Resilience Training (MRT), employee assistance programs (EAPs), leadership development programs, mindfulness-based stress reduction (MBSR), and cognitive behavioral therapy (CBT), have been designed to enhance mental toughness and resilience (Denkova et al., 2020). These interventions often include stress management techniques, goal setting, mindfulness practices, and cognitive-behavioral strategies (Denkova et al., 2020). Research suggests that such programs can improve individuals' ability to cope with workplace challenges (Denkova et al., 2020). In embracing these approaches, organizations can proactively foster a workforce better equipped to navigate the challenges of the modern professional environment.

Building upon this understanding, Davis and Batcheller (2020) explored the implementation of what they coined "a resiliency bundle" as an intervention program to

address moral distress in the workplace and enhance employees' mental toughness. The study aimed to develop a comprehensive set of strategies and resources to help employees cope with moral distress in the workplace and build resilience in challenging work situations. The research methodology involved a mixed-methods approach, combining qualitative interviews and focus groups with quantitative surveys to gather data from healthcare professionals. The participants in the study consisted of 47 nurses, physicians, and other healthcare providers in the pediatric care unit who often encounter moral dilemmas in their work. Participants were asked to complete a pre and post test of resilience and moral distress 6 months following the resilience bundle implementation.

The results highlighted the positive impact of the resiliency bundle in managing moral distress and fostering mental toughness among the participants. It should be noted that the resiliency bundle in this study included blocks of instruction on the ethical issue resolution process, mindfulness reminders available through cell phone applications, a patient death process reminder, case conference discussion availability, structured debriefings, discussions with colleagues and supportive staff, leadership notification, social events, host site educational courses, and availability of the employee assistance program (Davis & Batcheller, 2020).

Following a dependent 1-sample t-test, there was a statistically significant increase in group resilience from 79.9 to 83.4 within 6 months of the resilience bundle implementation (p < 0.0001) in these healthcare professionals. The study's results emphasized the importance of resiliency training as an effective intervention contributing to resilience in the workplace, particularly in the high-stress healthcare setting where moral dilemmas are prevalent. The absence of information regarding the specific

deliverers of the resiliency intervention in the study by Davis and Batcheller (2019) raised an important question about the potential impact of delivery methods on the effectiveness of such programs.

As evidenced by a study conducted by Jha et al. (2020), where the delivery of mindfulness training was explored in applied high-demand settings, the way interventions are delivered can significantly influence how subjects receive and benefit from the intervention. One hundred eighty United States Army soldiers' performance on sustained attention and working memory tasks were assessed before and after a 4 week mindfulness-based attention training was administered. The key element to note in this study was that a third of the participants received the mindfulness training from a performance expert (and fellow soldier), a third from a mindfulness expert (no military affiliation or familiarity), and a third received no training.

Jha et al. (2020) found that sustained attention and working memory performance declined over the high-demand training period, but the Performance Expert trained group declined significantly less in both aspects of performance than the other groups.

Conclusions in the study conducted by Jha et al. (2020) lead me to believe that understanding the influence of delivery methods on the outcomes of mental toughness interventions can contribute valuable insights for designing more effective and tailored programs that cater to the diverse needs of employees in various work settings. Davis and Batcheller's (2019) study results could be skewed or have other implications if we knew who the resilience bundle intervention implementers were.

Another form of resilience training/intervention, called cognitive behavioral therapy, has been proven effective in reducing burnout. Bagheri et al. (2019) conducted a

semi-experimental study on 60 nurses using a pre-test and post-test design to determine the effects of teaching stress-coping strategies and implementing a group cognitive-behavioral therapy on stress and burnout among participants. Ten sessions of CBT training were conducted by a clinical psychiatrist with a Master's degree, covering cognitive stress and negative thinking, stress-coping strategies including relaxation, recognition of personality types, and effective communication methods. Bagheri et al. (2019) showed that teaching coping strategies and group cognitive-behavioral therapy effectively reduced burnout in nurses.

In a study conducted by Chopik et al. (2019), the researchers sought to examine changes in character strengths in United States Army soldiers deploying for the first time. They proposed that the deployment experience, generally seen as stressful, might constitute an experience that would alter the normative development of character strengths (improve resilience through traumatic exposure). This longitudinal study accessed quantitative data from a population of 212,386 Army active duty, reserve, and national guard soldiers who had a deployment recorded between 5/7/2009 and 11/29/2016 and had completed at least one Global Assessment Tool (GAT) prior to and after their deployment. The GAT is a character measure that assesses four character subscales: intellect, civic strengths, warmth, and temperance. The study results were not statistically significant but demonstrated that most soldiers were resilient, with high levels of character strengths, before deployment and changed very little across the deployment cycle. Although the study findings were not as conclusive as the researchers expected and failed to provide empirical evidence of psychological adaptation following exposure to an adverse situation, the implications lead to more justification for my study.

In the United States Army, performance optimization involves applying technologies and techniques to help individuals and teams maintain peak performance in the face of environmental or task-related perturbations (Brunye et al., 2020). Master resilience training (MRT) is part of the Comprehensive Soldier and Family Fitness (CSF2) program that the Army utilizes to increase Soldiers' mental, physical, emotional, and behavioral abilities to face and cope with adversity, adapt to change, recover quickly, and learn and grow from adversity (Brunye et al., 2020). This resilience training program includes learning and practicing self-awareness, self-regulation, optimism, mental agility, strengths of character, and connection to enhance mental toughness, the ability to sustain optimal performance during stress, effectively lead others, and achieve challenging goals (Brunye et al., 2020).

The Squad Overmatch program was also implemented as part of the Army's Ready and Resilient Campaign (R2C) to prevent unhealthy levels of stress that influence performance. Participants received the training through traditional classroom (stand-up lecture), virtual environment simulation-based team training (Virtual Battlespace III), and live training exercises with role players, state-of-the-art responsive mannequins, and simulated pyro techniques. Initial findings and a subsequent follow-on study determined that the training mitigated the effects of stress (Hallal-Kirk et al., 2020).

# **Biblical Foundations of the Study**

Inspiration for this study was Matthew 5:16, "In the same way, let your light shine before others, that they may see your good deeds and glorify your Father in heaven" (Matthew 5:16, New International Version). The Bible details a lot about work and how the Lord views the work and work ethic that people engage in. Matthew 5:16

reaffirms that Christians act to glorify God in all that they do. Working is a prime example of glorifying God and letting one's light shine bright. The euphemism of "letting one's light shine bright" can also be interpreted as a clear and apparent demonstration allowing others to see the good- and obedience to God. Biblically, there is evidence supporting the notion that work is a demonstration of one's devotion to the Lord as demonstrated in Colossians 3:23-24 (work as service to the Lord), Proverbs 12:11 (diligence yields riches), Ephesians 6:7-8 (work as service to God), 1 Corinthians 10:31 (all for God's glory), and Genesis 2:15 (stewardship of the garden) (The Holy Bible, New International Version). Being mentally tough enough to endure troubling situations in the workplace allows an individual to continue to please the Lord and work towards God's plan. An inability to work or contribute to humanity is an act of laziness and could cause one not to eat (2 Thessalonians 3:10, New International Version).

James 1:2-4 reads, "Dear brothers and sisters, when troubles of any kind come your way, consider it an opportunity for great joy. For you know that when your faith is tested, your endurance has a chance to grow. So let it grow, for when your endurance is fully developed you will be perfect and complete, needing nothing" (James 1:2-4, New International Version). Workplace satisfaction can be enhanced by cultivating self-trust and relying on personal beliefs or faith, which can be supported by mental toughness. The Bible urges people to treat trials or obstacles as a path to a better future, allowing them to build endurance to bear these troubles. An example is Romans 5:3-4, "Not only so, but we also glory in our sufferings, because we know that suffering produces perseverance; perseverance, character; and character, hope" (Romans 5:3-4, New International Version). Difficult times tend to display weaknesses in people and expose various

vulnerabilities. James 1:2-4 reminds Christians that instead of complaining about the troubles they may have encountered, they should rejoice and be glad that they were chosen for such a journey.

Oftentimes, a paradigm shift or re-affirmation of strengths is all it takes to remind someone that they can endure difficult situations. Grit, mental toughness, and resilience all impact the individual to their core and can tremendously affect how one interprets acts or events involving them (Duckworth et al., 2007). James 1:2-4 demonstrated that even the toughest times teach us something about ourselves and can contribute to future successes. According to Egli & Hoven (2020), the primary goal of traditional sports psychology is to help athletes and coaches become more consistent and better performers by implementing psychological skills training that increases self-awareness. The same is true of looking at mental toughness through a Christian worldview, but it also adds to a person's faith development.

Weinberg and Gould (2015, Pg. 248) stated, "Psychological skills training refers to learning to systematically and consistently practice mental or psychological skills to enhance performance, increase enjoyment, or achieve greater sport and physical activity self-satisfaction." As one can assume, physical training and mental toughness skills require time and effort by participants to produce positive results (Egli & Hoven, 2020). Having this in mind, we know it requires significant discipline when incorporating faith into mental toughness. In the classic text of *The Spirit of the Disciplines*, Willard (1988, Pg. 68), defines spiritual discipline as "activities of mind and body purposefully undertaken, to bring our personality and total being into effective cooperation with divine order."

Based on that description, we must incorporate changes to attitudes and behaviors to establish spiritual discipline, reflecting a combined reliance on God's grace and our strength. The research proposes this through mental toughness training, whether the individual applies the principles independently or works with a trained professional (Egli & Hoven, 2020). A recent study by Wang et al. (2021) determined that intrinsic religiosity improves employee mental toughness, or how an individual internally conceptualizes religion. This study's findings parallel Matthew 6:21, when Jesus says, "For where your treasure is, there your heart will be also." By employees of this study having an internal focus on their religion and how to best walk in the way of the Lord, they demonstrated marked improvements in their mental toughness throughout the COVID-19 pandemic while working in the hospitality field.

# **Summary**

While there is a growing body of research on mental toughness and resilience in the workplace, some challenges remain. These include needing standardized measures and assessment tools, exploring cultural and contextual influences, and developing interventions tailored to specific industries or occupations. My research focused on understanding the role of organizational factors, such as organizational culture, leadership styles, and support systems, in promoting mental toughness and resilience.

The Biblical foundations explored in this study shed light on the importance of work, mental toughness, and spiritual discipline in the life of a Christian. Matthew 5:16 emphasizes the need to let our light shine before others, glorifying God through our actions and work. James 1:2-4 encourages believers to view trials as opportunities for

growth and endurance, shaping us into individuals who face challenges with joy and perseverance. By incorporating mental toughness training and spiritual discipline, individuals can strengthen their faith and enhance their performance in various areas of life. The research findings presented in this study supported the notion that a strong internal focus on one's religion can improve mental toughness, as demonstrated by Wang et al. (2021). As we strive to align our hearts with God's purposes, may we continue to walk in faith, reflecting His grace, and allowing our lives to testify to His power and love.

#### **CHAPTER 3: RESEARCH METHOD**

#### Overview

This chapter offers a comprehensive blueprint of the procedures of my study. I will describe the methodology employed, research questions, hypotheses, study design, data analysis, and delimitations of the study. This chapter will also explain the measurement instruments, emphasizing the balance between quantitative and qualitative methods. I will also include a description of and justification for the phenomenological approaches used.

# **Research Questions and Hypotheses**

RQ1: How do non-military and law enforcement employees describe their lived experiences of adversity in the workplace?

RQ2: What is the relationship between workplace satisfaction, quitting intention, and perceived workplace adversity among employees?

Hypothesis 2: There will be a negative correlation between perceived workplace adversity and workplace satisfaction.

RQ3: How do employees who have participated in resilience training report their workplace satisfaction compared to employees who have not attended training?

Hypothesis 3: Employees who have participated in resilience training will exhibit significantly higher self-reported workplace satisfaction scores compared to employees who have not.

RQ4: What is the relationship between mental toughness and grit in this population?

Hypothesis 4: There will be a strong positive correlation between mental toughness and grit.

# **Research Design**

The present study used a mixed-method research design combining quantitative and qualitative approaches to address its multifaceted objectives comprehensively. This design was selected to provide a holistic perspective and deeper insights into the interplay between mental toughness, grit, and workplace adversity within the context of non-military or law enforcement personnel. By leveraging both quantitative and qualitative (phenomenological) approaches, this design ensured that the study's purpose was met from multiple angles, thereby enriching the overall depth and breadth of findings to help readers learn from the lived experiences of others.

The specific phenomenological methods that were used in this study included a combination of narrative phenomenology and hermeneutic phenomenology. Hermeneutic phenomenology is concerned with grasping the lived experiential meanings and understanding the lifeworld and being through reflection (Suddick et al., 2020). Hermeneutic phenomenology in this study focused on the participants' lives and experiences in the past 12 months. Hermeneutic phenomenology was used to emphasize interpretation and understanding of the text/ narrative data provided by participants. I explored the meanings embedded in participants' descriptions, using word choice analysis to uncover deeper insights. Similarly, narrative phenomenology was employed to consider participants' experiences through their narratives or stories told. Narrative phenomenology enables a researcher to explore peoples' construction and representation of their everyday experiences and actions through stories (Mattingly, 2013). The analysis

of qualitative data gathered is defined by the stories that people are caught up in and the stories that are overlooked (Frank, 2010). In this study, I collected and analyzed personal narratives/ life stories to understand how individuals construct and communicate their experiences in the workplace.

These two phenomenological approaches were most appropriate for my study because I sought to understand participants' narratives based on the story told and the construction of the story itself. By combining both approaches, I sought to demonstrate how some lived experiences are best explored via storytelling and best interpreted through a holistic understanding of the themes that emerge following comprehensive analysis. The qualitative portion of this study aimed to explore the intricate and multifaceted nature of human experiences, prioritize participant perspectives, and uncover the underlying meanings and interpretations that may shape those experiences.

# **Participants**

The population in the present study was 100 individuals (50 male and 50 female) recruited through an online forum messaging system, email messages, and bulletin postings to the working student body of Liberty University. Convenience sampling was utilized to select participants based on their ease of access and availability. This sampling method was a pragmatic option due to limited resources such as time, funding, and research personnel. Participants represented various majors on Liberty University campus, ages, religions, and racial/ethnic backgrounds. All participants in this study were employed, with the primary focus of data analysis on those outside military and law enforcement occupations. Participants who were employed in military or law enforcement roles at the time of participation were not considered as the primary focus of

the research. Participants were at least 18 years of age. Ethnically, the largest representations were from Caucasians (65%), African Americans (10%), and Latinos (10%).

## **Study Procedures**

Before completing the survey administered online, all participants read a consent form explaining the voluntary nature of participation and were told that they could stop at any time (See Appendix A). Respondents who agreed to participate were expected to complete all of the measures and were be advised of the confidentiality and anonymous nature of their responses (See Appendix B). A series of demographic questions were administered before the study measures (See Appendix C). For this study, four measures were used to investigate mental toughness (See Appendix D), grit (See Appendix E), workplace satisfaction/quitting intention (See Appendix F), and workplace adversity (See Appendix G). The data was gathered through a Mental Toughness Questionnaire (MTQLite) (Clough et al. 2002), Gallup Employee Engagement Questionnaire (Gallup, 2016), Grit Scale (Duckworth, 2007), and narrative response to an open-ended question that asked about a difficult situation experienced in the past 12 months within the workplace and how the individual thought of it at the time of survey administration.

#### **Instrumentation and Measurement**

## **Mental Toughness Questionnaire (MTQLite)**

In the current sample, a 10-item mental toughness questionnaire was used (Clough et al., 2002). Individuals were asked to respond to the statements regarding their thoughts and behaviors within the context of difficult situations on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree". This particular questionnaire (See

Appendix D) was chosen because of its high applicability to identifying perceived attitudes and behaviors when participants were asked to respond. Examples of the statements include "I usually find something to motivate me", "I don't usually give up under pressure" (reversed) and, "At times I expect things to go wrong" (reversed). Clough et al. (2002) report criterion validity of the measure while Nicholls et al. (2008) determined that internal consistency of the overall scale had a Cronbach's alpha of .90.

#### **Grit Scale**

The second measure administered in the current study was a 12-item Grit measure, responded to on a 5-point Likert scale ranging from, "Strongly Disagree" to "Strongly Agree" (See Appendix E) (Duckworth, 2007). Participants were asked to respond to the statements carefully about how they generally are but without spending too much time on them. Examples of these statements included "I am diligent," "I achieve my long-term goals," and "My interests change from year to year." In a recent study involving CrossFit competitors, it was determined that test-retest reliability of the 12 item Grit Scale ranged from moderately high to excellent with a Cronbach's alpha between .76-.91 (Cazayoux et al., 2018). Validity was determined to be high, averaging .70 in a number of trials and positive associations with known constructs other than self-control (Duckworth, 2007).

## **Gallup Employee Engagement Questionnaire**

The third measure that was used in the current study was a 12-item measure, responded to on a 5-point Likert scale ranging from, "Strongly Disagree" to "Strongly Agree" (See Appendix F). Participants were asked to respond to statements concerning

their current or most recent place of employment. Example statements included "I know what is expected of me at work," and "At work, my opinions seem to count." This measure highlighted workplace satisfaction and quitting intention. The Gallup Employee Engagement Questionnaire was found to provide evidence to show an association between a higher score on this measure and indicators of higher organizational performance (Gallup, 2016). In a population of South African employee participants, Cronbach's alpha coefficient was .92, making internal reliability very high for this measure (Havenga et al., 2013). Validity was measured but requires further analysis for the particular population of study.

## **Narrative Response**

The fourth and final measure used in the current study was a narrative response question about workplace adversity (See Appendix G). The participants were asked to think about the most difficult situation they had endured during this year, on the job. Then they were asked to explain how they dealt with it and how they thought about it at the time of survey administration.

#### **Trustworthiness**

## Credibility

Lincoln and Guba (1985) defined credibility, or internal validity, as confidence in the 'truth' of the finding. Member checking was conducted to establish credibility throughout the qualitative portion of the present study. Participants were asked to confirm when they were complete and reviewed their narrative to ensure they had properly conveyed their thoughts, emotions, and behaviors before submission. Member checking is posited as the most crucial technique for establishing credibility (Lincoln and Guba,

1985). Quantitatively, internal validity is logically determinable by demonstrating isomorphism or verisimilitude between the data and the group of people being studied (Guba, 1981). In simpler terms, I established a connection or similarity between the quantitative data and narrative responses gathered to ensure that the survey data accurately reflects or mirrors the real-world situations I was interested in studying.

# **Transferability**

Lincoln and Guba (1985) defined transferability, or external validity, as showing that the findings have applicability in other contexts. Transferability was enhanced in the present study by providing detailed research methods, data collection, and analysis for application to other settings (Merriam, 1995). Geertz (1973) coined the term 'thick description' to describe a method of enhancing transferability by including large amounts of detail about the location setting, atmosphere, climate, participants present, attitudes of the participants involved, reactions observed that may not be captured on audio recording, bonds established between participants, and feelings of the investigator. By including an overabundance of detail about every aspect of the research and its process, other researchers can assess the transferability and generalizability of the data considering the limitations (Merriam, 1995).

# **Dependability**

Lincoln and Guba (1985) defined dependability as showing that the findings are consistent and could be repeated. The dependability of the present study was improved by having a researcher who is not involved in the research process examine the research study's process and product, also known as implementing an inquiry audit (Lincoln & Guba, 1985).

# **Confirmability**

Lincoln and Guba (1985) defined confirmability as a degree of neutrality or the extent to which the respondents shape the findings of a study and not the researcher's bias, motivation, or interest. The primary method of enhancing confirmability is an audit trail, which operates the same way an auditor does when verifying the accounts of a business (Lincoln & Guba, 1981). To do this, I maintained a transparent record of the research steps taken, detailed enough for another researcher to understand and replicate my study. Record of raw data, data reduction, and analysis products, data reconstruction and synthesis products, process notes, and materials relating to my intention and expectations were maintained to establish confirmability (Lincoln & Guba, 1985).

## **Operationalization of Variables**

**Mental Toughness** – this ratio variable was measured by total score on the Mental Toughness Questionnaire (Clough et al. 2002).

**Grit** - is a ratio variable and was measured by total score on the Grit Scale (Duckworth et al., 2007).

**Workplace Satisfaction** – is a ratio variable and was measured by total score on the Gallup Employee Engagement Questionnaire (Gallup, 2016).

**Career Field** – is a nominal variable that was measured by the researcher created demographic questionnaire asking participants to select the category they fall within.

#### **Procedures**

Prior to data collection, approval from the Institutional Review Board (IRB) was received to ensure the study complies with all ethical standards. Study participants' confidentiality and anonymity was safeguarded and strictly maintained. Participants were

recruited through targeted outreach including online advertisements via social media platforms and emails to the Liberty University student body. Inclusion and exclusion criteria were clearly defined to screen participants accordingly. Data was collected using an online survey platform called Survey monkey for accessibility and convenience sampling of participants. All informed consent, confidentiality/ anonymity, and self-report survey measures were gathered electronically. Data was collected and analyzed using SPSS, G\*Power, R, and Linguistic Inquiry and Word Count (LIWC) software. The results were then interpreted to address the research questions and hypotheses.

## **Data Analysis**

Data was screened for outliers and missing data and checked for univariate and multivariate normality. Multivariate normality was checked using multivariate skewness and kurtosis coefficients to assess whether the data departed from normality. Descriptive statistics and a Shapiro- Wilk test were conducted for all variables in this study and used to assess univariate normality. A score of mental toughness, grit, and workplace satisfaction were obtained for each participant. This included the means, minimum and maximums, and standard deviation. Internal reliability of the quantitative measures was analyzed through Cronbach's alpha.

A series of independent samples *t*-test were conducted to determine if there was a significant difference in self-reported workplace satisfaction scores between employees who have participated in resilience training and those who have not (RQ3). Bivariate correlation analysis was conducted to assess the relationship between workplace satisfaction, quitting intention, and perceived workplace adversity (RQ2). Pearson's

correlation coefficient was conducted to indicate the strength and direction of the relationship between mental toughness and grit among participants (RQ1).

For the qualitative portion of the study, responses to the open-ended question were evaluated and analyzed using software that reports data about the use of certain words more than others called Linguistic Inquiry and Word Count (LIWC). The narrative response was used in this study to determine the linguistic differences of individuals exhibiting higher mental toughness levels and those reflecting lower levels of it as correlated with their self-reported workplace adversity. The narratives and written lived experiences of participants were input into LIWC as an instrument for text analysis. The program read the text and compared each word to the over 100 built-in dictionaries created to capture peoples social and psychological statuses. Some words counted in LIWC were coded as relating to affective and cognitive processes. These processes encompass positive emotionality and negative emotionality, including words related to anxiety, anger, and sadness, as well as cognitive processes, which encompass words related to insight, causation, discrepancy, tentativeness, certainty, inhibition, inclusivity, and exclusivity.

## **Delimitations, Assumptions, and Limitations**

The present study was delimited by specific choices aimed at defining the boundaries and scope of the research. A deliberate delimitation included using electronic survey methods, which resulted in selecting a relatively small and potentially unique sample population, focusing the study's exploration on this specific group. Using online survey methods established a virtual environment for data collection, allowing for

convenience and accessibility. The deliberate exclusion of military and law enforcement personnel from the participant pool narrowed the study's focus and ensured a distinct demographic representation- making the findings more relevant to those outside of a first responder role. Additionally, excluding gender as a primary study variable further established a boundary within the research, allowing for a more targeted examination of mental toughness, grit, and adversity in the workplace. These delimitations had been designed to concentrate the study's investigation on facets of the research questions and enhance the precision of the findings within the defined parameters.

In the current study, several assumptions have been made to facilitate the collection and analysis of data. It was assumed that participants would respond to self-report survey questions honestly. While this assumption was essential for the validity of the results, the possibility of response bias cannot be ruled out. Additionally, it was assumed that the chosen sample adequately represented the population under study, despite the relatively small and potentially unique nature of the sample.

Several limitations inherent to the study design and methodology warrant mention. First, due to the relatively small and potentially unique sample available for the study, caution must be exercised when generalizing the results beyond the specific sample population. The study findings do not apply to broader contexts, emphasizing the need for future research with a more expansive participant population to corroborate the findings.

The use of survey data and the anonymity afforded to respondents introduced the possibility of social desirability bias. Participants provided answers that do not authentically reflect their attitudes, beliefs, and behaviors, leading to an inaccurate

portrayal of the opinions within this population. However, respondents were expected to answer the survey questions honestly and accurately. Another limitation pertains to the absence of gender as a variable in the study. While gender was not included as a main variable, it was acknowledged that gender-related associations could enhance the study's depth and understanding. Future research could benefit from validating any gender-related associations that might be inferred, especially considering the potential impact of uneven sample sizes on the likelihood of personality differences.

Regarding the methodological approach, I used Linguistic Inquiry and Word Count (LIWC) software to analyze word choice statistically. This approach, while providing external validity, introduced internal validity concerns. The LIWC software relied on a predefined dictionary of word families, which might have lacked minor contextual identification capabilities. Researchers should be cautious when interpreting such data, considering potential errors introduced by the dictionary-based analysis. In conclusion, while this study offered valuable insights, these assumptions and limitations underscore the need to carefully interpret and consider the results within the defined scope and context.

## Summary

This chapter began with a restatement of the research questions and hypotheses. I discussed how the research design and methodology were deliberately selected to blend quantitative and qualitative measures to unravel the intricacies of mental toughness, grit, workplace satisfaction, and adversity within the sample population. Instrumentation and measurement analysis methods were detailed regarding the quantitative aspect of this

study. It should be noted that the qualitative analysis, conducted through the Linguistic Inquiry and Word Count (LIWC) software, provides perspective to enrich our understanding of how linguistic patterns align with the dimensions of mental toughness and workplace adversity. Details and justification of the phenomenological approaches used to complete the qualitative analysis were also included. I also discussed procedures for participant selection and data collection.

The following chapter will present the data and describe my analytical process. I will also dissect the data, examine the statistical significance of my findings, and weave them with the qualitative insights garnered from participant narratives. As I interpret the results, I will navigate the associations between mental toughness, grit, and workplace adversity, discerning the patterns, correlations, and divergences that shape my findings.

#### **CHAPTER 4: RESULTS**

#### Overview

In this mixed-method study, I examined the relationship between mental toughness, grit, workplace satisfaction, and quitting intention, in non-military or law enforcement professionals. My research also aimed to investigate resilience-building strategies to improve employee workplace experiences. It identified the most significant factors in talent-attrition and measured employee attitudes and beliefs that may have influenced workplace satisfaction. Data was collected using an online survey platform for accessibility and convenience sampling of participants. All informed consent, confidentiality/ anonymity, and self- report survey measures were gathered electronically as well.

The four research questions I sought to answer included:

RQ1: How do non-military and law enforcement employees describe their lived experiences of adversity in the workplace?

RQ2: What is the relationship between workplace satisfaction, quitting intention, and perceived workplace adversity among employees?

Hypothesis 2: There will be a negative correlation between perceived workplace adversity and workplace satisfaction.

RQ3: How do employees who have participated in resilience training report their workplace satisfaction compared to employees who have not attended training?

Hypothesis 3: Employees who have participated in resilience training will exhibit significantly higher self-reported workplace satisfaction scores compared to employees who have not.

RQ4: What is the relationship between mental toughness and grit in this population?

Hypothesis 4: There will be a strong positive correlation between mental toughness and grit.

Qualitative data was collected online as well, but through an open-ended question, allowing participants to tell some of their life stories by communicating their experiences in the workplace. While responses to the quantitative portion of this study were gathered through the implementation of a Likert Scale (strongly disagree to strongly agree), the qualitative data was elicited through participants' written statements and word choices. Participants were advised that the entire set of measures would take up to 30 minutes to complete, but analysis showed that participants completed it between 7 and 11 minutes. There was a 93% completion rate overall with the most skipped or unanswered question being the single open-ended response about workplace adversity.

In this chapter, I will present the raw data collected during the research process. I will interpret the data and identify patterns, trends, and relationships that emerged. The chapter will conclude with a discussion of the findings, namely the interpretation of the results in the context of my four research questions and hypotheses, as well as their implications.

## **Descriptive Results**

The study participants were 144 individuals (75 female, 67 male, and two who preferred not to identify) recruited through an online message, emails, and word of mouth. Participants represented various age groups, occupations, work status, and racial/ethnic backgrounds. Within the 144 participants, the most occurring and median

age group was between the ages of 31 and 40 (35.72%), with ages 18 to 30 following closely behind at 26.38%. One hundred five participants reported currently working full-time (72.91%), 19 part-time, 11 retired, six preferred not to disclose, and three were unemployed. Ethnically, the largest representations were from Caucasian (54.86%), African-American (12.5%), Hispanic (11.8%), and Asian (10.4%) identifying people.

The largest career-field representations were from the health care (32 participants), education (20), information technology (21), and finance (16) fields. It should also be mentioned that of the 144 participants, 87 (60.4%) reported that they had never participated in any mental toughness or resilience training provided by their employer in the last 12 months. Training, in this context, was operationally defined for participants as including any stress management workshops, mental health first aid training, mindfulness and meditation, emotional intelligence workshops, leadership and team building retreats, crisis intervention training, employee assistance programs (EAPs), wellness initiatives, and communication skills training.

The interview question (Appendix G) revealed three main things. The first being that participants in the present study were eager to tell their stories about dynamics in the workplace. Although this portion of the study was the last question asked of them, less than 20% of the participants skipped the question. Some participants wrote nearly 200 words expressing their perceptions of adverse situations in their workplaces. Lastly, and not anticipated, was the overwhelming number of participants who chose to write in a 'stream of consciousness' manner, making the qualitative data analysis that much easier due to the lack of structure.

## **Study Findings**

## **Research Question 1**

The first research question to be analyzed in this study was strictly qualitative. Participants were asked to "Please write about the most adverse situation you have encountered at your workplace within the last 12 months. How did you initially perceive the situation, and what do you think of it now?" This open-ended question did not have a word limit or cap on how long the participants could write out their personal experiences. Data analysis was conducted using a program called Linguistic Inquiry and Word Count v22 (LIWC-22), a text analysis tool to help understand the thoughts, attitudes, and perceptions of people through their choice of words in various dimensions. Of the 144 participants in this study, 114 responded to this question and 28 chose to opt out or skip it.

# **Coding Process**

The first step before formally analyzing the data was to immerse myself in the data and LIWC-22 software. Because data was collected online, all responses were exported directly to a Microsoft Excel spreadsheet for review and then into the software. This process ensured that there would be no manipulation of the data or researcher bias, as no transcription or note-taking was required. Each response was read multiple times prior to utilizing LIWC-22. I then reviewed the internal dictionary within LIWC-22 to gain a better understanding of how participant responses would be categorized. Themes and subthemes were chosen for presentation in my study based on participants' representation of key responses, which can be viewed in Table 1. For example, profanity/ "swear" words were not used by any of the participants resulting in this code being eliminated.

Table 1

Qualitative Data Coding

Themes	Subthemes	Examples
Tone	Positive Tone	"now I see it as a natural part of
		change that we were able to
		weather by working together,
		taking care of ourselves and each
		other, and staying true to our
		values and goals."
	Negative Tone	"I was set up to fail"
Emotionality	Positive Emotionality	"I'm thrilled to be a part of this
		team."
	Negative Emotionality	"I feel terrible here."
_		
Focus	Past-Focused	"I was treated"
	Present-Focused	"I use that situation to make better
		decisions."
	Future-Focused	"Now, I'm excited to see how
		things go here"

## Theme 1: Tone

Forty-nine of the participants' responses had a positive tone, while 31 had a negative tone. A response was coded as having a positive tone when it included words such as, "improve," "impress," "accept," "worthy," "hopeful," and "welcome". A response was coded as having a negative tone when it included words such as, "fear, "weak," "exhaust," "cringe," "reject," and "stress". One of the most notable responses with a positive tone mentioned, "...now I see it as a natural part of change that we were able to weather by working together, taking care of ourselves and each other, and staying true to our values and goals." Although this participant articulated a very stressful and difficult work environment, they were able to substantially tell their story in a way that

demonstrated a positive tone overall. Another good example of a positive tone within a participant's written response ended by stating, "my boss told me I was doing really good work, and he was proud of me."

I found that a negative tone was easier to notice and code thereafter. A statement like the following is overwhelmingly negative in tone:

"I had to work with/alongside someone who needed a lot of mentoring even though she was in the profession longer than I. I hated that situation and still dislike it now even though I have grown from it; it definitely messed with my mental health.

An additional example of a negative tone was when a participant stated the following:

I started a remote job at a new company a few months ago, it has been challenging to feel like a part of the team. It's a very negative environment overall, constant criticism and correction due to being trained differently by different people. It's been challenging but I'm exceeding their expectations, I've been told.

# Theme 2: Emotionality

The second theme coded for in the participants' written responses was emotionality. Considering the present study was conducted via survey methods, participants' behaviors were not observed following stressful events in their workplaces. Emotionality, then, in this study, was evaluated through participants' ability to convey their intensity of feelings, which is/was a representation of their internal psychological processes. There was virtually an equal number of positive emotionality versus negative emotionality expressed in the present study.

When asked how an individual felt about an adverse situation in the workplace, it would be socially acceptable to state something along the lines of, "It was terrible." Consequently, a statement of that nature was deemed as having a negative emotionality code. Another example of a participant's response coded as negative emotionality is, "I went against the recommendation of several colleagues, I was initially worried. Even though I went with my gut, it was a bad decision. I should have thought it through better."

On the other hand, positive emotionality was expressed through the use of words such as, "fond," "friendly," "hope," "proud," "pleased," and "uplift." An example of a participant response coded as positive emotionality was:

A major upheaval happened after a volunteer member of the team was suddenly let go. It was scary to think about at first, but the team was not irreparably impacted. Those of us that remain are thankful to be here. We encourage one another and are optimistic about the future of the company.

A far shorter, and more direct, participant response with positive emotionality stated, "My workplace is awesome."

#### Theme 3: Focus

For this theme, distinguishing between past, present, and future-focus involved identifying the temporal orientation of participants responses. Present-focus refers to responses that primarily discussed situations, experiences, and perspectives that pertained to the 'now.' Fifty one participants fell into that group, asserting that following their experience of an adverse situation in the workplace, they were predominantly focused on the present. Past-focus, then, refers to responses that primarily focus on the event,

experience, or memory of it. Responses coded as past-focus had an overwhelming majority of words written in the past tense, which was a total of 54 responses. Future-focus refers to responses that mainly anticipate the future or expressed goals and plans, this totaled only 17 participants.

Both temporal markers and contextual cues were taken into consideration to differentiate between these three themes. Some of these temporal cues included "now," "then," "last year," "next year," "today," and "in the future." Contextual cues used to determine past, present, or future-focus also included the tense words were written in. For example, when a participant stated, "My workplace is awesome," they were present-focused. When a participant wrote the following statement, they were past-focused:

There was involuntary moves happening in the district from one school to another and I believed I was going to be transferred. It made me list out everything that I did at the current school to show my worth. As time went by, I realized I did not need to take the time to show my work / duties as I was not being considered for a transfer. It just made me nervous.

A future-focus was conveyed when another participant reported that they were:

...Hired for a very specific responsibility that has not materialized six months later, I am riding it and voicing concern. The interest is still there. I believe it will materialize. Meanwhile, I am learning different functions and procedures that will be a benefit when the job starts.

An example of a more complex response gathered included the statement:

I felt harassed by a manager. I perceived that I was treated unfairly. When I spoke to human resources and was fired from my job 1 week later. I had worked there

for almost 2 years making \$16 an hour with no raise and felt discouraged. I found another job just 1 month later that paid \$21 an hour. I think now that it was better for me, but I learned that I should probably not go to human resources if I want to keep my job. I have to be more resilient in the future to get through things like that better.

This response was determined to have a future-focus, but it should also be noted that it had a positive tone with positive emotionality as well. Upon further analysis, this same participant was also shown to have demonstrated a high level of both grit and mental toughness.

# **Research Question 2**

To analyze the relationship between workplace satisfaction, quitting intention, and perceived workplace adversity among employees, data and methodological triangulation had to take place. First, a correlation coefficient between workplace satisfaction and quitting intention was gathered. The Pearson correlation coefficient revealed a very strong positive correlation between workplace satisfaction and quitting intention, such that r(144) = .894, p < .001. This result suggests that participants with higher levels of quitting intention tend to report lower levels of workplace satisfaction.

As previously mentioned, three common themes and their subsequent subthemes were established when analyzing the qualitative data gathered from participants as they told their stories about their perception of workplace adversity. These themes, which included tone (negative and positive), emotionality (negative and positive), as well as focus (past, present, and future), were all used in the analysis of their integration with the quantitative variables. Participants with quitting intention tended to use a higher

proportion of words reflecting negative emotionality (M=38.3% of their response) than words reflecting positive emotionality. It was also determined that although the primary word choice for many demonstrated negative emotionality, their overall tones were mostly positive (M=22.6% of their response). The integration of data from both quantitative and qualitative methods resulted in a convergence of the findings.

## **Research Question 3**

Before conducting a nonparametric, independent samples t-test to compare the means of workplace satisfaction of employees who had attended resilience training versus employees who had not, I computed tests of normality. The Shapiro-Wilk test was conducted to assess the normality of the distribution of workplace satisfaction for those who had not participated in resilience training through their employer in the last 12 months. The results indicated that the distribution deviated significantly from normality such that W = .878, df = 87, p < .001. A similar result was garnered from participants who reported having participated in a resilience training through their employer in the last 12 months, W = .892, df = 57, p < .001. In both of these cases, the null hypotheses were rejected.

The Mann-Whitney test was conducted to compare the distribution of workplace satisfaction between those who reported having attended resilience training through their employer in the last 12 months (n=57) and those who reported having not (n=87). The test revealed no significant difference between the two groups, p =.24, causing me to retain the null hypothesis.

## **Research Question 4**

A Pearson correlation coefficient was computed to assess the linear relationship between mental toughness and grit. I hypothesized that there would be a strong positive correlation between mental toughness and grit. There was a positive correlation between the two variables, r(144) = .29, p < .001.

A Pearson correlation coefficient was also computed to assess the linear relationship between workplace satisfaction and mental toughness. There was a positive correlation between the two variables, r(144) = .53, p < .001. Another Pearson correlation coefficient was then computed to assess the linear relationship between workplace satisfaction and grit. There was a positive correlation between the two variables, r(144) = .27, p < .001.

Following the three correlations computed, a regression analysis was done to examine the relationship between workplace satisfaction and mental toughness. The results are presented in Table 2. This regression model accounted for a significant amount of variance in workplace satisfaction. The multiple correlation coefficient (r) was .53, indicating, once again, that there was a moderately positive correlation between mental toughness and workplace satisfaction. The coefficient of determination,  $r^2$ , was .281, indicating that 28.1% of the variance in workplace satisfaction was explained by mental toughness level. The regression model was statistically significant such that, F(1, 142) = 55.453, p < .001.

Table 2

Model Summary

			Adjusted R	Std. Error of	
Model	R	R Square	Square	the Estimate	
1	.530a	.281	.276	.7464	

a. Predictors: (Constant), Mental Toughness

A regression analysis was done to examine the relationship between workplace satisfaction and grit. This regression model did not account for as significant of an amount of variance in workplace satisfaction as mental toughness did. The multiple correlation coefficient (r) was .27, once again, confirmed that there was a positive correlation between grit and workplace satisfaction. The coefficient of determination,  $r^2$ , was .07, indicating that 7% of the variance in workplace satisfaction was explained by grit level. The regression model was statistically significant such that, F(1, 142) = 10.792, p = .001.

## **Analysis of Variance**

Additional analysis was conducted to examine the relationship employment status (part-time or full-time) had on mental toughness, grit, and workplace satisfaction. An analysis of variance was conducted and revealed that there was almost no significant effect of employment status on grit, F(1, 122) = 1.424, p = .235 or mental toughness, F(1, 122) = 2.484, p = .118. The analysis of variance did reveal a significant effect of employment status on workplace satisfaction, F(1, 122) = 7.399, p = .007; the effect size indicated a moderate relationship ( $\eta^2 = .057, 95\%$  CI [0.004, 0.151]). The ANOVA can be viewed in Table 3 below and the effect size can be viewed in Table 4.

Table 3

ANOVA

		Sum of		Mean		
		Squares	df	Square	F	Sig.
Mental Toughness	Between Groups	1.201	1	1.201	2.484	.118
	Within Groups	58.969	122	.483		

	 Total	60.169	123			
Grit	Between	.817	1	.817	1.424	.235
	Groups					
	Within	69.996	122	.574		
	Groups					
	Total	70.813	123			
Workplace Satis.	Between	5.662	1	5.662	7.399	.007
	Groups					
	Within	93.360	122	.765		
	Groups					
	Total	99.022	123			

Table 4

ANOVA Effect Sizes<sup>a,b</sup>

		Point	95% Confidence Interval	
		Estimate	Lower	Upper
Mental Toughness	Eta-squared	.020	.000	.092
	Epsilon-squared	.012	008	.084
	Omega-squared Fixed- effect	.012	008	.084
	Omega-squared Random- effect	.012	008	.084
Grit	Eta-squared	.012	.000	.074
	Epsilon-squared	.003	008	.067
	Omega-squared Fixed- effect	.003	008	.066
	Omega-squared Random- effect	.003	008	.066
Workplace Satis.	Eta-squared	.057	.004	.151
	Epsilon-squared	.049	004	.144
	Omega-squared Fixed- effect	.049	004	.143
	Omega-squared Random- effect	.049	004	.143

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

## **Factor Analysis**

Factor analysis was conducted in SPSS on each of the three measures utilized in this study. The 10-item Mental Toughness measure was determined to be a reasonably good fit for the data,  $\chi^2(26) = 35.203$ , p = .107. The Grit Scale also adequately fits the observed data,  $\chi^2(33) = 33.214$ , p = .457. A factor analysis was conducted on the Gallup Employee Engagement measure, which was the measure that was supposed to get at workplace satisfaction. Results showed that  $\chi^2(43) = 66.775$ , p = .012. The high chisquared value and low p-value indicated that the model had a significant discrepancy between it and the observed data.

## **Hierarchical Regression Analysis**

A hierarchical regression analysis was computed with respect to employment status, age, and level of mental toughness, presented in Table 5. Participants who reported being employed full-time were more mentally tough than those not employed full-time (part-time, retired, and those who did not wish to report). Full-time employment status did not have a statistically significant effect on mental toughness,  $\beta = 0.187$ , t(DF) = 1.446, p = .151. Simple regression analysis revealed that employment status did not have a statistically significant effect on mental toughness (Module 1). It also did not have a statistically significant effect on mental toughness even after controlling for age (Model 2), although the B coefficient was slightly higher at .244, compared to .187, but could have been statistically significant if alpha was raised.

## Table 5

Coefficients<sup>a</sup>

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	3.718	.110		33.690	<.001
	Employment	.187	.129	.120	1.446	.151
	Status					
2	(Constant)	3.709	.156		23.846	<.001
	Employment	.244	.141	.157	1.723	.087
	Status					
	Response_A=31-	173	.149	120	-1.159	.248
	40					
	Response_A=41-	.148	.185	.077	.798	.426
	50					
	Response_A=51-	.024	.183	.013	.129	.897
	60					
	Response_A=61+	.020	.250	.008	.079	.937

a. Dependent Variable: Mental Toughness

# **Summary**

In all, there were several statistically significant results in the present study.

Research question 1 resulted in findings demonstrating that non-military or sworn law enforcement employees describe their lived experiences of adversity in the workplace with varying degrees of emotionality, tone, and focus. Research question 2 confirmed that there is a relationship between employees' workplace satisfaction, quitting intention, and perceived adversity. Research question 3 determined that there was not a significant difference between employees' mental toughness for those who had and had not participated in resilience training. It was also found that the distribution deviated significantly from normality. Finally, research question 4 found that there was not only a positive correlation between mental toughness and grit, workplace satisfaction and mental toughness but also between workplace satisfaction and grit. Chapter five summarizes the findings and discusses how my research contributes to existing literature.

I also discuss the finding's implications, limitations, and future research recommendations.

#### **CHAPTER 5: DISCUSSION**

#### Overview

As previously stated, this mixed-method study examined the relationship between mental toughness, grit, workplace satisfaction, and quitting intention, in non-military or law enforcement professionals. This research also aimed to evaluate the relationship between mental toughness, grit, and how employees reflect upon their lived experiences of adversity in the workplace. The study sought to provide insights into the factors influencing workplace satisfaction and resilience among employees in non-military and law enforcement careers through the qualitative and quantitative data gathered from the listed research questions. Additional research identified a positive relationship between full-time employment status and mental toughness, which demonstrated a potential trend when controlling for age.

In this chapter, I will discuss the study findings related to the research questions and hypotheses, evaluated based on their successes and failures. I will interpret and explain the results, their implications, limitations, and future research needed. In the remainder of this chapter, I will summarize the key findings and the analysis of results with respect to previous studies reviewed and mentioned in Chapter 2. This chapter will conclude with my reflection on the overall significance of the study and its contributions to the field.

## **Summary of Findings**

The findings of this study shed light on crucial insights into workplace satisfaction and quitting intention of non-military or law enforcement employees by uncovering their mental toughness, grit, and perceived workplace adversity, thereby offering valuable contributions to our understanding of job attrition and talent retention. When exploring the lived experiences in the workplace of non-military or law enforcement professionals, the present study found that there were varying degrees of emotionality, tone, and temporal focus when the participants reported attitudes and beliefs about their perceived adversity in the workplace. Overall, most participants had a positive tone when writing about their experiences but expressed negative emotionality and were past-focused.

The second research question asking what the relationship between workplace satisfaction, quitting intention, and perceived workplace adversity among employees determined that there was a positive relationship between all variables. Something important to point out here is that this research question was answered through triangulation of the data. This approach allowed me to enhance the reliability and validity of the results while also strengthening the robustness of the conclusions. Next, the third research question determined that there was not a significant difference between employees' mental toughness for those who had and had not participated in resilience training, which surprised me. After establishing that the distribution deviated significantly from normality, this finding was better understood.

The final research question found that there was not only a positive correlation between mental toughness and grit, workplace satisfaction and mental toughness, but also between workplace satisfaction and grit. This finding highlights the interconnectedness of the key variables within this study. This study suggests that employees who demonstrate higher levels of mental toughness and grit are also more likely to report greater workplace satisfaction. Previous research (Denkova et al., 2020; Dweck & Leggett, 1988;

Hallal-Kirk et al., 2020; Jha et al., 2020; Maddi, 2020) showed that mental toughness and grit are malleable personality traits, underscoring the importance of a workplace that supports the development of both of these facets.

# **Discussion of Findings**

When it came to the correlations made in this study, I determined that it was best to focus on analysis conducted on the median scores rather than the averages. Not only did taking the median score correlation make more sense, but they also produced more noteworthy statistical data. For example, when analyzing the correlation between mental toughness and grit average scores, I found no correlation such that r(144) = -.01, p = .90, whereas the median scores produced a positive correlation with r(144) = .29, p < .001. On the other hand, when analyzing the correlation between score averages of workplace satisfaction and mental toughness as well as workplace satisfaction and grit, both of those correlations were very similar to that of the score medians. A possible explanation for this difference can be because of the skewed or non-normal distribution of data. In this study, the median scores were less sensitive to extreme values (outliers) compared to the means, making it a more robust result to report.

These findings align with the biblical foundations laid out in Chapter 2, Matthew 5:16 and Romans 5: 3-4. First, when I read Matthew 5:16 I split this into three thoughts: letting your light shine, good deeds, and glorifying God. Simply possessing mental toughness and grit enables ana employee to demonstrate their other positive qualities. They let their light shine by exemplifying perseverance, determination, and courage through adversity in the workplace. Similarly, these employees are better able to overcome obstacles and reflect on them positively amongst peers (as evidenced by the

high usage of positive tonality in research question one). The positive correlations of mental toughness, grit, and workplace satisfaction also reflect upon employees' values. Glorifying God is not only scripturally encouraged but can also be done through witnessing another person's good deeds. Findings in this study emphasize that individuals with mental toughness and grit glorify God daily through utilizing these qualities but they can also positively impact their workplace by allowing others to witness good deeds.

The findings of this study also align with Romans 5:3-4. The key takeaway from this scripture is that suffering produces perseverance, perseverance produces character, and character produces hope. My interpretation of this scripture is that the Bible tells us to see challenges as opportunities for growth and development. The qualitative data gathered in this study demonstrated that although 79% of employees disclosed an array of workplace challenges, they all persevered. The act of enduring these challenges in the workplace presented participants with the opportunity to display their character development as well. While expressing negative emotionality about the challenging situations in the workplace over the past twelve months, the majority of participants maintained a positive tone-some even expressed how the events would shape their future behaviors as an example of hope.

Previous research and the incremental theory tell us that adapting to change is crucial in today's evolving work environments (Georgoulas-Sherry & Hernandez, 2022). An employee's ability to adapt to change is demonstrated by both mental toughness and grit in the present study. The findings of my study are congruent with many of those presented by Eskreis-Winkler et al. (2014). When these researchers stated that Woody Allen had penned, "80% of success is showing up," I was quickly reminded that 79% of

my participants had disclosed challenging situations in the workplace, and yet they persisted. Eskreis-Winkler et al. (2014) also found that gritty employees were more likely to remain at their jobs long-term; this effect of grit on retention held when controlling for Big Five conscientiousness and demographic variables. In the present study, participants who reported being employed full-time were more mentally tough than those not employed full-time, but full-time employment status did not have a statistically significant effect on mental toughness when controlling for age.

Duckworth et al. (2007) found that grit more strongly predicted West Point cadet retention than SAT score, high school rank, or self-control. In the present study, similar results were found as evidenced by the positive correlation of mental toughness and grit with quitting intention. Employees in the present study with higher levels of mental toughness and grit were found to have lower levels of quitting intention. Lin, Liu, & He (2020) linked mental toughness and resilience to higher psychological well-being and job satisfaction, which is also consistent with the correlations found in the present study.

## **Implications**

The implications of the present study have illustrated avenues through which organizations can create environments that promote individual well-being, growth, alleviate burnout, and contribute to the overall satisfaction of employees in their respective organizations. The present study's results also justify for employers to develop effective strategies for dealing with employee stress, quitting intention, and productivity. This study has also provided background information related to resilience, grit, mental toughness interventions, and the role of employers in promoting employees' mental health.

As evidenced by the qualitative data gathered, even in civilian (non-military or law enforcement) professions, there is a high need for employers to support their employees' mental health. Findings suggest that organizations should prioritize the well-being of the individuals as opposed to the output of the group overall. This study filled a gap in the research by going beyond survey method data with predefined multiple-choice response options by allowing participants to tell their stories through a narrative without any limits. The findings of the present study can also be used to understand employer-employee relationships better. As mentioned, positive correlations between mental toughness and grit, workplace satisfaction and grit, and workplace satisfaction and mental toughness suggest that interventions focused on one aspect may have positive impacts on the other factor/ variable.

Along those same lines, after reviewing the data, I noticed that only 39.5% of all respondents reported having attended an employer-sponsored mental toughness or resilience training within the last twelve months. Consequently, I assert that non-military or law enforcement agencies could benefit from establishing effective training and intervention programs. We know that 100% of military and law enforcement personnel have repeated exposure to resilience training, begging the question that if the civilian population did the same, could mental toughness, workplace adversity, and quitting intention improve? Answering this question would require an experimental study testing variables before and after interventions.

To take this a step further, the final implication of this study relates to policy reform and organizational practices. The present study found that employees need the support of their employers. By aligning policies with the needs of employees,

organizations can create sustainable solutions to address the challenges of burnout leading to quitting intention, work-life balance issues, retention of skilled labor, attraction, and performance outcomes. As organizations strive for continued improvement in metrics, sales, output, customer engagement, and other organization specific areas, the current study also catalyzes continued improvement within the organization. By regularly collecting feedback from employees in a non-judgmental fashion (i.e., anonymously), organizations can identify key indicators of well-being and resilience, and then address the emerging challenge appropriately.

#### Limitations

## **Previously Mentioned Limitations**

As previously stated, there are several limitations inherent to the study design and methodology that warrant mention. One of the most obvious limitations of the present study is the relatively small and potentially unique sample that was available for the study. The primary delimitation of the study established was to restrict participation to only employed personnel who had professions other than the military or law enforcement. In doing this, I may have increased the internal validity of the study while simultaneously stifling the external validity. Caution must be exercised when generalizing the results beyond this specific sample population. The study findings do not apply to broader contexts, which emphasizes the need for future research with a more expansive participant population to confirm the findings.

Respondents were expected to answer the survey questions honestly and accurately. Like all survey-method studies, the use of survey data and its anonymity afforded respondents the possibility of social desirability bias. Participants could have

provided answers that do not authentically reflect their attitudes, beliefs, and behaviors, leading to an inaccurate portrayal of their opinions. Another limitation I had identified pertains to the absence of gender as a variable in the study. While gender was not included as a main variable, it was acknowledged that gender-related associations could enhance the study's depth and understanding. Future research could benefit from validating any gender-related associations that might be inferred.

Regarding the methodological approach, I used Linguistic Inquiry and Word Count (LIWC-22) software to analyze word choice statistically. This approach, while providing external validity, did introduce internal validity concerns. The LIWC-22 software relied on a predefined dictionary of word families. Although this dictionary consisted of over 12,000 words, word stems, phrases, and select emoticons with six primary themes further specified into 115 subthemes, the software might have lacked minor contextual identification capabilities. Researchers should be cautious when interpreting such data, considering potential errors introduced by this computerized textual dictionary-based analysis.

#### **New Limitations**

A limitation discovered after the completion of this study was the overall complexity of integration of the data. By utilizing an explanatory sequential research method, integrating the quantitative and qualitative data was challenging. Quantitative data was analyzed in four data processing programs, while qualitative data was analyzed in two. Through the utilization of such a high number of data analytic systems, there may have been discrepancies or contradictions between the quantitative and qualitative data gathered.

As one might expect, this process was also time-consuming. The explanatory sequential method was not as time-consuming for the participant as anticipated but was for me as the researcher. I anticipated participants would take as long as thirty minutes to complete all measures; however, they all finished between seven and eleven minutes. Data cleaning and analysis, on the other hand, was a more resource-intensive process. There was also the added investment of both financial means and time to get access to specialized training and software to make this research possible. Without resources and tools, this research would not have been possible, thus limiting its contribution to the field.

The final limitation identified was causality. The correlations made do not infer causality. It should be understood that the associations discussed through the interpretation of the quantitative data do not explicitly explain all attitudes and beliefs conveyed in the qualitative data. Establishing causality would have required temporal precedence of a cause and effect, which is more aligned with an experimental research method than the present explanatory sequential study. Overall, these limitations underscore the need to carefully interpret and consider the results within the defined scope and context.

#### **Recommendations for Future Research**

There are several recommendations for future research that emerged from the findings of the current study. Cultural differences were not taken into account in this study and should be in the future. In the study of attitudes and behaviors, a distinction or control for symbolic inheritances (i.e., conceptions of persons, society, nature, and divinity), along with behavioral inheritances that may be common or habitual familial

and social practices, needs to be made (Jensen, 2012). Examining the same variables under the lens of a cross-cultural study could influence the relationships studied in my research and bolster the impact of generalizability.

Though the present study was intended to be an effort at an interdisciplinary study, future research is recommended that collaborates and integrates with Sport/
Performance Psychology and Occupational Psychology better. The broader field of psychology, as a whole, could benefit from a more diverse integration of perspectives to address the problem in this study. The integration of both fields innately requires that the exchange of ideas and concepts goes both ways. This two-way exchange means that theory and concept models from organizational psychology should be applied in the sports setting, much like sports psychology practices should be applied to the workplace, a bidirectional relationship (Hwang, Lee & Lee, 2024).

The research methodology in the present study was strictly based on empirical processes in social psychology. Future research that applies a methodology from sports psychology is needed. If self-report survey methods are replicated, a longitudinal study that examines attitudes and behaviors over time would be beneficial. Additionally, it is impossible to report on behaviors that were not observed effectively. Future research should implement an observational component so as to demonstrate that the phenomena are verifiable and detectable in several independent ways and not dependent on a specific theoretical framework (Eronen & Bringmann, 2021).

#### **Summary**

This explanatory sequential (mixed-method) study examined the relationships between mental toughness, grit, workplace satisfaction, quitting intention, and perceived

workplace adversity in participants employed in fields other than law enforcement and the military. The present study revealed employee experiences and workplace challenges through the implementation of three short quantitative measures followed by an openended question for participants to write freely. The findings suggested that employers emphasize the well-being of their employees in order to mitigate job attrition attributed to stress, burnout, and a number of other maladaptive psychological phenomena.

Despite the anticipated small sample size, methodology, confounding variable, and qualitative internal validity limitations, implications for the present study remain the same. This study adds to the field of psychology and fills a gap in the literature by affirming that organizational policies and practices require change to mitigate job attrition. As psychologists, we must continue to advocate for holistic approaches in the workplace that not only illicit feedback from employees but also integrate interdisciplinary collaboration and longitudinal research/ surveillance to address the evolving needs of the modern workplace of civilians.

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### APPENDIX A: Information Sheet

### **Information Sheet**

**Title of the Project:** Can Mental Toughness Training Mitigate Job Attrition?

**Principal Investigator:** Maiah Taylor, Doctoral Candidate, Psychology Department of Liberty University

# Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be employed and over 18 years of age and employed in any profession other than the military or law enforcement. Taking part in this research project is voluntary.

Please read this entire form. Ask questions before deciding whether to participate in this research.

## What is the study about and why is it being done?

This mixed-method study examines the relationship between mental toughness, grit, workplace satisfaction, and quitting intention, in non-military or law enforcement professionals. This research also aims to investigate resilience building factors to improve employee workplace experiences.

### What will happen if you take part in this study?

If you agree to be in this study, you will take an anonymous survey. This study is estimated to take 30 minutes to complete.

# What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

### How will personal information be protected?

The study's records will be kept private. Research data will be stored securely, and only the researcher will have access to the records.

- Participant responses will be kept anonymous.
- Data will be stored on a password-locked computer. In three years, all electronic records will be deleted.

### Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

### Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Maiah Taylor. Ask any questions you have at any point. **You are encouraged** to contact me at:

Email:	
Phone:	

You may also contact the researcher's faculty sponsor, Dr. Ralph (Mike) Ogburn, at

# Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) ensures that human subjects research will be conducted ethically as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

### APPENDIX B: Confidentiality and Anonymity Form

This agreement outlines the terms and conditions regarding the confidentiality and anonymity of the information collected during your participation in this research project.

Before participating in this research study, it is important that you carefully read and understand the following terms and agree to them:

# **Confidentiality:**

- Data Collection: All information collected during this research project will be kept strictly confidential. This confidentiality includes any data obtained through surveys, demographic information, and your written responses.
- 2. **Storage of Data**: Research data will be securely stored per the Institutional Review Board (IRB) data protection laws and regulations.
- 3. **Anonymity**: Any personal information shared will be separated from any research data you provide. All published results will use pseudonyms or aggregate data to protect your identity.

# **Participant Rights:**

- 1. **Withdrawal**: You can withdraw from the study at any time, for any reason, without facing any consequences.
- Access to Information: You may request access to the information you provided during the research process, but only to the extent permitted by IRB laws and ethical guidelines.
- 3. **Questions**: If you have any questions about the research project, its purpose, or any concerns about confidentiality or anonymity, please contact Maiah Taylor at

# **Agreement:**

By selecting the response below and proceeding, you acknowledge that you have read and understood the terms outlined in this Confidentiality and Anonymity Agreement.

 I agree to participate in the research project with the understanding that my information will be handled in accordance with these terms.

# APPENDIX C: Demographic Questionnaire

1. What is your current employment status? Select one		
a.	Full-time	
b.	Part-time	
c.	Unemployed	
d.	Retired	
e.	Prefer not to say	
2. What is your age? Select one		
a.	18-30	
b.	31-40	
c.	41-50	
d.	51-60	
e.	61+	
f.	Prefer not to say	
3. Please select your ethnicity from the following list (Select all that apply):		
a.	Asian	
b.	Native Hawaiian or Pacific Islander	
c.	Caucasian	
d.	Native American	
e.	African American	
f.	Hispanic or Latin	

	g.	Other (Fill in the blank)	
	h.	Prefer not to say	
4.	Which	Which term best describes your gender identity? Select one	
	a.	Male	
	b.	Female	
	c.	A gender identity not listed here (Fill in the blank)	
	d.	Prefer not to say	
5. What is your current work industry? Select one			
	a.	Agriculture	
	b.	Utilities	
	c.	Finance	
	d.	Entertainment	
	e.	Education	
	f.	Health Care	
	g.	Information Services	
	h.	Data Processing	
	i.	Food Services / Hospitality	
	j.	Legal Services	
	k.	Military	
	1.	Law Enforcement	
	m.	Other (Fill in the blank)	

- n. Prefer not to say
- 6. Have you participated in any mental toughness or resilience training provided by your employer in the last 12 months?
  - i. Training would include any stress management workshops, mental health first aid training, mindfulness and meditation, emotional intelligence workshops, leadership and team building retreats, crisis intervention training, employee assistance programs (EAPs), wellness initiatives, and communication skills trainings.
  - b. Yes
  - c. No

# APPENDIX D: Mental Toughness Questionnaire Lite (MTQLite)

This appendix addresses the questions used to measure mental toughness. The MTQLite, 10-item mental toughness measure, is a proprietary instrument developed by AQR International to assess overall mental toughness on four sub-scales. Due to its proprietary nature, the specific questions and wording are not disclosed here. For the full measure, please contact AQR International.

### APPENDIX E: Grit Scale

- 1. I have overcome setbacks to conquer an important challenge.
- 2. New ideas and projects sometimes distract me from previous ones.
- 3. My interests change from year to year.
- 4. Setbacks don't discourage me.
- 5. I have been obsessed with a certain idea or project for a short time but later lost interest.
- 6. I am a hard worker.
- 7. I often set a goal but later choose to pursue a different one.
- 8. I have difficulty maintaining my focus on projects that take more than a few months to complete.
- 9. I finish whatever I begin.
- 10. I have achieved a goal that took years of work.
- 11. I become interested in new pursuits every few months.
- 12. I am diligent.

# APPENDIX F: Gallup Employee Engagement Questionnaire

This appendix addresses the questions used to measure workplace satisfaction and quitting intention. The Gallup Employee Engagement, 12-item, questionnaire, is a proprietary instrument developed by Gallup researchers to assess employee engagement linked to performance outcomes such as profitability, productivity, retention, and turnover. Due to its proprietary nature, the specific questions and wording are not disclosed here. For the full measure, please contact Gallup customer service and consultants.

# APPENDIX G: Adversity Question

Please write about the most adverse situation you have encountered at your workplace within the last 12 months. How did you initially perceive the situation and what do you think of it now? (To be responded to in an open-ended response box)

This is the end of the survey. Thank you.