Spring 2024

PERSONALITY TRAIT THEORY AND COMBAT PERFORMANCE: A RETROACTIVE STUDY ANALYZING COMBAT PERFORMANCE AND RESILIENCE AMONG USAF EOD VETERANS OF IRAQ AND AFGHANISTAN

Michael C. Pasley
Southeastern University - Lakeland

Personality Trait Theory and Combat Performance: A Retroactive Study Analyzing Combat Performance and Resilience Among USAF EOD Veterans of Iraq and Afghanistan

Submitted to Southeastern University

Jannetides College of Business, Communication, and Leadership

In partial fulfillment of the requirements
for the degree of
Doctor of Philosophy in Organizational Leadership

M. Cole Pasley

May 22, 2024

Jannetides College of Business, Communication, and Leadership
Southeastern University

This is to certify that the dissertation prepared by:

M. Cole Pasley

titled

PERSONALITY TRAIT THEORY AND COMBAT PERFORMANCE: A RETROACTIVE STUDY ANALYZING COMBAT PERFORMANCE AND RESILIENCE AMONG USAF EOD VETERANS OF IRAQ AND AFGHANISTAN

Has been approved by his committee as satisfactory completion of the dissertation requirement for the degree of Doctor of Philosophy

Approved By:

Joshua D. Henson, Ph.D., Chair
Jannetides College of Business, Communication, and Leadership

Thomas Gollery, Ed.D., Committee Member
College of Education, Southeastern University

Christopher Townsend, Ph.D., Committee Member
Uniformed Services University of Health Sciences

Southeastern University Institutional Review Board Approval:
January 2, 2024

May 22, 2024

Abstract

The United States' national security depends upon high-performing leaders within select high-stress and high-risk military functional communities. However, research into the personality traits needed to perform well in these communities is lacking. This quantitative, retrospective, nonexperimental, correlational research aimed to determine whether relationships existed between the personality traits of Air Force EOD Team Leader Veterans of Iraq and Afghanistan and their combat performance and resilience. The theoretical foundation of this study encompassed personality trait theory, theories of human resource management and performance, and criterion measurement theories. The TAKE5 FC, a commercially available forced-choice five-factor model personality assessment, measured personality traits. Combat performance was measured using the Combat/Deployment Performance Rating Scale (CDPRS), and Resilience was measured using the Connor-Davidson Resilience Scale (CD-RISC). Air Force EOD Team Leader Veterans of Iraq and Afghanistan completed the TAKE5 FC and CD-RISC, whereas their Team Members completed CDPRS surveys to assess their combat performance. This study revealed that the combat performance domain of Field Readiness was best predicted by a curvilinear relationship with the personality trait of Extraversion. Resilience was best predicted by both linear and curvilinear relationships with Emotional Stability. Additional research is suggested to support these findings further, develop new theories of high-stress and high-risk leadership performance, and enact leadership development and resilience programs within dangerous career fields.

Keywords: Combat Performance, Explosive Ordnance Disposal, Five-Factor Model of Personality, Resilience, United States Air Force.

Dedication

In 2004, I was a young teenager cautiously standing in an Air Force recruiting office. The recruiter, a smooth salesperson who sensed I was nervous, quoted Psalm 37:23 (KJV), "The steps of a good man are ordered by the Lord." Looking back, perhaps a better verse for my life should have been, "For I do not understand what I am doing, because I do not practice what I want to do, but I do what I hate" (Romans 7:15). I am far from good, yet as I have fumbled my way through life, God has not only sustained me but also guided me to succeed beyond my wildest dreams. If that is not proof of the existence of God, I'm not sure what is. Just as the Chronicler wrote, "Everything in the heavens and on earth is [the Lord's]," this dissertation belongs to God. Not only has He sustained me in combat, but He has also turned my stupidity into riches more times than I can count.

Though this dissertation *belongs* to God, it's *dedicated* to Beth, the love of my life, and my two children, Blake and Page. As I reflect on my career, educational journey, repertoire of far too many time-consuming and money-hungry hobbies, and my Enneagram Type-1 goal-oriented emotionless personality, it's painfully evident that my drive to achieve has been carried out on the backs of my family. To Beth, I'm nothing without your love and support. Please know that all my imperfect displays of emotion (or lack thereof) have been driven by a desire to be the man and provider you and the kids deserve. Some days I'm hard to love. I'm eternally grateful and speechless you've stuck around through it all. To Bubbs (Blake) and my Punkin (Page), since becoming your father, my life's goal has been to build a legacy you can be proud of and to leave a name you're not embarrassed to wear. I'm prouder of you two than y'all can imagine. Though I hope to have left a small mark on our Pasley lineage, I can't wait for all your life's accomplishments to dwarf my work and this little dissertation.

Acknowledgements

I want to first acknowledge my EOD folks. Y'all are my chosen family. I'm so lucky to have been accepted by this rowdy group of Type-A, sarcastic, moderately brilliant warfighters. You all made me the man I am today.

I acknowledge our fallen EOD brothers and sisters and their Gold Star families, whose loss is unfathomable. Tom, Adam, and Mikey, my friends and true heroes lost in Afghanistan. Why you all are gone, yet I'm still here, is a mystery I'll never solve. I've worn my EOD crab every day in your honor.

Thank you to so many phenomenal mentors, friends, and leaders throughout my career. I won't list names in fear of excluding someone…with one exception:

The Rogers family and Jerrika, you showed me how to lead and demonstrated to Beth and me how to build EOD shop family and culture. This earthly life is messy. Thanks for letting us weave our mess into yours. "Unable are the loved to die." For Kyle…

To my parents, stepparents, and in-laws, thank you for the foundation you laid for me. Each of you gave me ingredients of love, discipline, and support that allowed the Air Force and EOD community to build the person I am today.

To Dr. Henson, thank you for your passion during this entire Doctoral journey. Any pain or delays I experienced during this process occurred when I didn't heed your advice. Thank you for keeping me accountable and on track.

Dr. Gollery, I think you have dreams about statistics. Quantitative Analysis was my biggest concern at the outset of this journey, but you made it a breeze. Thank you for your buy-in and excitement about my research.

Dr. Townsend … Pete, we went from junior enlisted Corn Cob drag races in Afghanistan to you now being an officer and reader on my committee. Thanks for being a sounding board, confidant, and Airman. I'm proud to call you friend.

Lastly, to Cohort 5 (the Panacademics). Y'all are crazy! Thank you all for letting me into your group. I only hope I added half as much value to your lives as y'all added to mine. Thanks for "becoming a doctor" with me. I'm cheering for you all.

Table of Contents

List of Tables

Chapter 1 – Introduction

The state of global affairs balances atop a thin peak of peace and risks disruption at any moment. Xi Jinping has resolved to reunify Taiwan with China during his reign (Sacks, 2021). Vladimir Putin is seemingly content to end the earth in nuclear devastation (Pandita, 2023; Smetana & Onderco, 2023). The Middle East continues to burn, with thousands dying each year due to kinetic conflicts (Mogul et al., 2023). Recently, the United States experienced cold skirmishes with China and Russia in the forms of trade (Dhar et al., 2023; Orhan, 2022), cybersecurity (Kaplan & Watts, 2022), and media misinformation (Elswah & Howard, 2020; Zheng et al., 2021). Although these cold struggles are frustrating, a worst-case scenario might be these colder and non-kinetic skirmishes escalating to a traditional or nuclear ground and air war (Allison, 2017; D. Johnson, 2021).

The United States recognized this growing threat and released a new National Defense Strategy that marked a distinct shift in America's threat prioritization from non-state extremist organizations in the Middle East to Strategic Peer Competitors such as China and Russia (U.S. Department of Defense, 2022). This shift means that in a strategic competition war, instead of fighting homemade Improvised Explosive Devices (IEDs) built by terrorist networks, battlefield commanders must focus on gaining quick air superiority over America's foes (Deaile, 2022). In this future war, Air Force Explosive Ordnance Disposal (EOD) Team Leaders' roles will be to disarm and remove enemy weapons and other explosive hazards from military airfields after enemy attacks to enable immediate aircraft operations (*Air Force Manual 32-3001*, 2022; Harper, 2022). However, the United States Air Force cannot expect to launch and recover aircraft and fight for air superiority if EOD Team Leaders perform poorly and are unprepared for war (Crandell, 2020). If EOD Team Leaders are not adequately selected, trained, and developed into their leadership roles, and that deficit causes underperformance, America will undoubtedly lose the battle to its Eastern enemies, and its position as the arbiter of Western ideals of freedom and liberty will tumble (Bandow, 2022). As such, screening, recruiting, training, and preparing EOD Team Leaders to lead

successfully in nonpermissive combat environments are paramount and a matter of national security. Despite EOD Team Leaders' strategic importance to national security and war posturing, recruiting and retaining talent remain problematic for Air Force EOD's strategic echelon of leadership (J. Johnson, 2020). This human talent and leadership development problem persists, and how recruiting, training, and development efforts are linked to previous operational combat performance and resilience of Air Force EOD Team Leaders has not been identified in the literature.

Historically, enlisted recruits for all branches of the United States military have been assessed by the Armed Services Vocational Aptitude Battery, more commonly known as the ASVAB (Segall, 2004). In the past few decades, however, research has cast doubt on the ASVAB's utility as the only assessment tool for predicting military members' outcomes (Kirkendall et al., 2020). For example, Ree and Carretta (1994) argued that ASVAB scores did not account for 84% of the variance in soldier job performance. Of note is that the U.S. Department of Labor Employment and Training Division (2006) guidelines for testing and assessment denote that this level of variance is still "very beneficial" for training selection (pp. 3-10). However, these guidelines were developed with economic competitiveness and employment fairness in view instead of military lethality and wartime effectiveness. Martin et al. (2020) also demonstrated that the ASVAB measured existing aptitude but failed to account for the propensity to acquire new knowledge, problem-solve, or navigate complex learning requirements. Kirkendall et al. (2020) noted that military leaders are beginning to recognize the need for a whole-person approach to acquiring military talent; thus, this approach is growing in popularity relative to adding personality-based noncognitive measures to recruiting efforts (Drasgow, 2020).

Noncognitive assessments are an emerging tool for predicting performance across various disciplines (Berga & Austers, 2022; Mouratille et al., 2022; Thomas, 2023). Personality assessments offer unique tools for predicting behavior and performance at many levels of organizations (Moyle & Hackston, 2018). Personality traits predict various human outcomes, such as attitudes toward diversity and inclusion (Lall-Trail et al., 2023), success in technology-reliant career

fields (Fleming & Jia, 2016), and career satisfaction (Ones et al., 2007). Research has shown that personality traits also help analyze and predict performance across numerous professional disciplines (Cárdenas Moren et al., 2020; Hogan & Foster, 2013; Mourelatos et al., 2022). In broader military contexts, personality traits have been used to predict the performance of Army recruiters (Nye, White, Horgen, et al., 2020) and those whom they recruit (Rose et al., 2013), as well as general soldiering performance (Knapp & Kirkendall, 2020). However, measuring performance is problematic.

Developing unique and mission-related criterion measures to gauge the effectiveness of aptitude and noncognitive assessments for military career fields is problematic due to the substantial time and resources required (Velgach & Arabian, 2023). As such, military specialties that employ noncognitive assessments often use convenience data such as training outcomes or administrative records to measure performance (Knapp, 2006; Yu et al., 2023). This approach leaves a knowledge gap because the literature indicates that training outcomes are not always a reliable predictor of operational success (Diamantidis & Chatzoglou, 2014). Using training outcomes and administrative data as criterion measures also leaves combat performance wholly unexamined.

Nonetheless, leaders must understand recruits' personalities and behaviors to recruit and train effective talent for military service (Martin et al., 2023). However, research on personality and cognition as measured against military operational performance measures is limited. Specifically, the Air Force EOD program lacks research linking cognition and personality to combat performance analytics. Hogan and Hogan (1989) analyzed numerous noncognitive aspects of EOD training and operational performance in the Navy and Army. Still, these results are decades old and were not derived from examining Air Force EOD combat performance. Researchers used personality traits to predict recruits' success in training pipelines across numerous Air Force jobs, including EOD (Lytell et al., 2018; Manacapilli et al., 2012; Rose et al., 2013). However, those analyses measured training outcomes, meaning that personality traits for thriving and

succeeding after pipeline training in tactical combat leadership roles remain unidentified and unresearched for the Air Force EOD community.

Statement of the Problem

In a kinetic war, air superiority will likely determine success (Tchakalian, 2022). If the United States does not maintain its decisive advantage in the air, the nation will likely suffer defeat within the opening minutes of a future war (Tirpak, 2021). To gain and maintain air superiority, however, EOD forces must perform superbly and consistently in combat to recover airfields after an attack (Crandell, 2020). EOD's role in airfield recovery requires Team Leaders to rapidly locate, identify, render safe, and dispose of unexploded ordnance items blocking critical command infrastructure, taxiways, and runways (*Air Force Tactics, Techniques, and Procedures 3-32.10*, 2019). To perform these duties, Air Force EOD leaders argue that Team Leaders must display excellent communication, problem-solving skills, keen attention to detail, mental and emotional stability, and physical fitness, as well as possess an understanding of physics, mechanics, and electrical theory (*Air Force Enlisted Classification Directory*, 2021; *U.S. Air Force Recruiting*, 2021). However, no academic studies have confirmed these assertions or linked them to predictive assessments based on criteria from operational combat settings.

Despite the strategic importance of EOD Team Leaders, the initial training pipeline of EOD is at risk of incrementally lowering its standards. EOD Team Leaders should be elite and specialized military personnel who detect, disarm, and dispose of conventional, improvised, chemical, biological, and nuclear weapons (*Joint Publication 3-42*, 2022). They face great psychological demands in operational contexts, negotiate stressful and high-stakes situations, and navigate intense training requirements (*Air Force Manual 32-3001*, 2022; Otto et al., 2021). However, the Air Force recruits its EOD candidates from the general public, which is a potential launching point for reducing EOD training standards.

Within America's shifting parenting culture, a shrinking percentage of U.S. youth are motivated or qualified to join the military due to various issues such as the economy, obesity, and discipline (Baldor, 2022; McMahon & Bernard, 2019;

Velgach & Arabian, 2023). These recruiting challenges drove the Air Force to lower physical fitness requirements for the general forces (*Secretary of the Air Force Public Affairs*, 2021) and relax numerous long-held uniform and appearance standards across the Air Force (Garland, 2021). Narrowing to EOD contexts, the Air Force relaxed its ASVAB testing standards for EOD in 2019 and added the TAPAS component to the entry requirements informed by research based on training outcomes as a criterion measurement (J. Johnson, 2020). Representatives at Headquarters Air Force touted that removing specific ASVAB requirements did not reduce the standards within EOD's pipeline because all EOD graduates must complete Naval School Explosive Ordnance Disposal (NAVSCOLEOD) before assuming EOD duties. This assertion, however, is grounded in a false assumption that the training standards of NAVSCOLEOD are unchanging and not adaptable to student quality driven by changes at earlier points within individual services' training pipelines.

The independent frameworks of each military branch's EOD preparatory processes and the Navy's training requirements processes put the entire EOD program at risk of lowering standards, and thus, the performance of EOD Team Leaders, in a cascading fashion. As an Air Force-specific example, as recruits recently entered Basic Military Training with lower entry standards, the Air Force EOD Preliminary Course experienced higher medical injuries and academic failure rates, leading cadre members to adjust their course criteria and academic wash-back processes to maintain end-strength goals. As those students progressed to NAVSCOLEOD with fewer ASVAB requirements and reduced testing standards at the EOD Preliminary Course, Air Force students began failing written aptitude tests at a rate higher than that of their sister-service peers. Per Navy policy, when written and practical tests have a failure rate of more than 50%, the Training Officer evaluates and amends those tests independent of the Air Force and other joint service stakeholders (Department of the Navy Education and Training Command, 2011). However, the local policy at NAVSCOLEOD is 40%. Simply stated, each training level is adjusted to the previous level's quality in this environment. Yet,

there is no forcing function to review subsequent training events to evaluate the success or failure of adaptations at earlier points in training.

Further deficits persist in using training outcome data as a dependent variable within EOD studies. NAVSCOLEOD instructors indicated that recent Air Force EOD graduates required more training time with instructors to successfully complete the course than Air Force students before the reduction of ASVAB requirements. As such, current predictive success models in the Air Force identify graduates as successful without considering potential academic struggles and undue amounts of cadre tutoring time to reach previous levels of success. Currently, the Air Force uses outcome data from this problematic process to set their recruiting standards, an approach that risks lowering entry and training standards across the EOD community. Unfortunately, NAVSCOLEOD will not publicly release data to reflect these reductions in student performance.

Finally, current research lacks an evaluation of the Air Force EOD human talent recruitment and development framework based on operational success, performance in combat operations, or resilience after combat events (Hogan & Hogan, 1989; J. Johnson, 2020; Rose et al., 2013). Despite studies that leveraged the components of the TAPAS and ASVAB to create a Predictive Success Model, graduation and non-graduation of NAVSCOLEOD served as binary dependent variables and criterion measurements in these studies. This framework is problematic because considerable evidence indicates that simply passing training does not always predict success or later proficiency in training tasks (Diamantidis & Chatzoglou, 2014). Using a binary dependent variable also limits the examination of other performance indicators used in training, such as average grades, number of failed tests, written versus practical test performance, or wash-backs in training. Tactical-level leaders within the Air Force EOD community also complain about recent EOD graduates' abilities to certify and grasp EOD core concepts in operational contexts within reasonable timelines. These complaints are subjective conjectures and lack academic rigor, measurable analyses, or literature support. Research linking the ASVAB and TAPAS with demonstrated Team Leader success in operational combat EOD contexts is also lacking.

The window of opportunity to evaluate the performance and resilience of combat veterans is closing. Fewer than 15% of enlisted personnel were assigned to combat specialties or ever experienced combat in their careers (Kratz, 2022). However, the Air Force EOD community experienced combat in uncommonly high numbers compared to other Air Force specialties. In 2014, when Middle Eastern combat operations ended for the Air Force EOD community, Air Force EOD Technicians had completed more than 55,000 combat missions, disarmed nearly 20,000 IEDs, received over 100 Purple Heart Medals for injuries sustained in battle, and lost 20 service members in Iraq and Afghanistan (Leslie, 2014). Combat operations, however, ended in 2014, and thus, military members lack opportunities to receive combat experience (Schogol, 2017). As new members enter the military without opportunities for combat, experienced veterans are retiring and separating, and research on how Air Force EOD Veteran Team Leaders' experiences should impact the recruiting, training, and preparation of new warriors is lacking (Beynon, 2021). The problem this dissertation addressed is that despite the importance of EOD Team Leaders' performance, no studies to date have extended beyond the training pipeline to correlate personality traits with combat performance or post-combat resilience in the Air Force EOD enterprise.

Purpose of the Research

In this dissertation, I sought to identify and measure correlations between Air Force EOD Combat Veteran Team Leaders' personality traits, a retroactive assessment of their combat performance, and their post-combat resilience. In doing so, I added to the literature on trait theories of leadership and predictive performance through human resource management theories while offering information to Headquarters Air Force to consider refining EOD's Predictive Success Model, training pipeline, and leadership development processes. Personality trait theory has been used to predict performance across various organizational and academic contexts (Zell & Lesick, 2022). Researchers have also analyzed personality traits and performance within high-risk and high-stress occupations such as police officers (Dirzyte et al., 2022; Sellbom et al., 2021),

firefighters (Tomaka & Magoc, 2021), and aviators (Ali & Malik, 2022). Air Force EOD recruiting media proclaimed that EOD Team Leaders require Type-A personalities, must perform well under pressure, have high initiative and superb stress management skills, and must multitask to succeed operationally in the career field (*U.S. Air Force Recruiting*, 2018). Despite those claims, academic literature lacked research confirming such assertions among Air Force EOD Team Leaders who experienced combat. Although studies revealed a correlation between TAPAS scores and ASVAB results and success in initial EOD training, how the TAPAS and ASVAB impact operational success in tactical EOD environments and post-deployment resilience is currently unknown.

The aim of this dissertation was to identify personality traits that predicted operational success and resilience among Air Force EOD Combat Veteran Team Leaders. This dissertation arms the Headquarters Air Force, the Air Force Personnel Center, and the EOD Training Working Group with data and information to refine Air Force EOD's Predictive Success Model for recruiting, reevaluate measures within the training pipeline, and create a leadership development process for future Air Force EOD Team Leaders. This dissertation also contributes to the broader literature on trait theories of leadership within high-risk and high-stress leadership contexts. The aim of this study was to identify the personality traits of operationally successful and resilient Air Force EOD Combat Veteran Team Leaders.

Research Questions

The research questions for this study were grounded in the preponderance of literature that links human performance to personality trait theory (Corazzini et al., 2021; Li et al., 2022) and the Air Force's recent historical use of forced-choice five-factor model personality assessments (Drasgow et al., 2023; Segall, 2004). I designed the research questions to understand how and whether personality traits, measured by a forced-choice five-factor personality model assessment, affected EOD Operators' combat performance and resilience.

RQ1: Which of the five-factor model personality traits is most predictive of combat performance among Air Force EOD Team Leader Combat Veterans as measured by the Combat/Deployment Performance Rating Scale (CDPRS)?

RQ2: Which of the five-factor model personality traits is most predictive of resilience among Air Force EOD Team Leader Combat Veterans as measured by the Connor-Davidson Resilience Scale (CD-RISC)?

Significance of the Research

Before this study, no scholars had examined the correlation between personality traits and Air Force EOD Team Leaders' combat performance or resilience after initial pipeline training. The findings in this dissertation extend the work of the trait theories of leadership along with predictive success by testing personality trait scores against a more suitable sample population beyond the training environment, Air Force EOD Team Leader Combat Veterans of Iraq and Afghanistan. This dissertation also contributes to the broader literature by providing a better understanding of how personality trait theory relates to members' leadership performance within dangerous, high-risk, and high-stress career fields such as those within the Air Force EOD enterprise.

Conceptual/Theoretical Framework

This dissertation implicated several vital theories, including personality trait theory, theories of human resource management and performance, and criterion measurement theories. Though the military began analyzing and selecting recruits exclusively with aptitude theory, this study adopted a whole-person view similar to Snow (1992) who noted that aptitude theory is grounded in one's potential, "a latent, present, inferred quality or power that makes possible the development, given specified conditions, of some further quality or power, positive or negative" (p. 6). Snow also argued that "humans are not lists of independent variables; they are coordinated wholes" (p. 10). Therefore, personality trait theory underpinned this study's analyses of personality traits. Zell and Lesick (2022) noted that since the 1900s, extensive research has been conducted on the relationship between personality traits and performance across various disciplines. Research on the

dimensions of personality continues to support the efficacy of using five domains to characterize personality traits in the English language (Sutin et al., 2023). Thus, I employed the five-factor theory of personality by McCrae and Costa (1985) as a theoretical foundation for measuring personality traits of the study participants. Finally, this dissertation relied upon various theories of human resource management that emphasize that human performance could be observed and measured to improve leadership and talent management practices (T. F. Burgess & Heap, 2015).

The conceptual framework of this study was similar to that of Hogan and Hogan (1989), who compared aptitude and personality traits to Senior Noncommissioned Officers' (SNCO) perception of performance among Navy and Army EOD Operators. More specifically, this dissertation expanded the current understanding of predictive success modeling work in the Air Force that regressed ASVAB and TAPAS scores against success in initial training. The independent variables for this dissertation were personality traits as measured by the TAKE5 FC personality assessment. The TAKE5 FC measured the same five domains as the TAPAS but omitted the sixth "other" domain (see Table 1). Because the TAKE5 FC is a commercial assessment, the facets are copyrighted and are not individually listed in this dissertation.

Table 1

TAPAS Domains and Facets as Compared to TAKE5 FC Domains

TAPAS Domains	TAPAS Facets	TAKE5 FC Domains
Openness to Experience	Tolerance	Openness to Experience
Conscientiousness	Achievement	Conscientiousness
	Non-Delinquency	
	Responsibility	
	Self-Control	
Extraversion	Dominance	Extraversion
	Attention Seeking	
	Sociability	
Agreeableness	Cooperation	Agreeableness
	Selflessness	
Emotional Stability	Adjustment	Emotional Stability
	Even Tempered	
	Optimism	
Other	Physical Conditioning	
	Situational Awareness	

The dependent variables were EOD Team Leader performance, measured by Wasko et al.'s (2012) Combat/Deployment Performance Rating Scales (CDPRS), and Air Force EOD Combat Veteran Team Leader resilience, measured by the 25-item Conner-Davidson Resilience Scale (CD-RISC). The CDPRS measures five domains defined by 15 considerations (see Table 2). The CD-RISC is a commercialized and copyrighted instrument, so the domains and facets of the CD-RISC are not published in this dissertation.

Table 2

CDPRS Domains and Facets

CDPRS Domains	CDPRS Considerations
Field/Combat Judgment	Thinks rationally under pressure. Makes sound on-the-spot field decisions. Applies correct rules to the situation. Immediately/correctly performs required warrior tasks.
Field Readiness	Keeps self, weapons, and equipment in combat-ready condition. Maintains positive control and accountability of weapons, equipment, tools, and munitions. Follows procedures for handling equipment and weapons safely.
Physical Endurance	Is capable of meeting the demands of physical or environmental challenges or stressful situations. Sustains performance as long as the situation requires.
Physical Courage	Overcomes fear of bodily harm. Takes necessary risks in spite of fears. Does not act recklessly or place self or others at unwarranted risk.
Awareness and Vigilance	Maintains sense of alertness to enemy and environmental threats. Is always aware of unusual or threatening persons or conditions. Remains focused and alert despite sleep deprivation, extended missions, and difficult environmental conditions.

Methodology

The research approach used in this study was a quantitative, retrospective, nonexperimental, correlational design to determine whether a relationship existed between Air Force EOD Veteran Team Leaders' personality traits and their combat performance and resilience. Correlational research designs help researchers

determine whether a relationship exists between two or more variables or sets of scores (Creswell & Creswell, 2018). I used survey data completed by Air Force EOD Combat Veterans and conducted multiple linear regressions, singular regressions, and curved estimations to examine the relationships between the independent and dependent variables. Hair et al. (2019) noted that regression analyses help predict changes in the dependent variables due to changes in the independent variables.

Instrumentation

The TAKE5 FC personality instrument measured the independent variables and the CDPRS and CD-RISC instruments measured the dependent variables. The Air Force EOD program currently uses the TAPAS, a forced-choice personality test based on McCrae and Costa's (1985) five-factor model that measures predictors of motivation and job performance (Stark et al., 2014). However, the TAPAS is owned by the military and unavailable for public use. Moreover, the Air Force implemented the TAPAS after most Iraq and Afghanistan veterans entered the military, eliminating the availability of archival data for use in measuring their personality concerning combat performance. Thus, the TAKE5 FC served as a commercially available forced-choice five-factor model surrogate for the TAPAS throughout data collection for this dissertation. The TAKE5 FC was open for 6 weeks and administered to the sample population through the commercial organization's web-based and smartphone applications under a data use agreement.

The CDPRS retroactively measured Air Force EOD Combat Veteran Team Leaders' combat performance. The CDPRS measured five domains defined by 15 considerations and was administered via an online survey through Survey Monkey. The survey was open for 6 weeks and, similar to Hogan and Hogan's (1989) design, it was completed by EOD Technicians who were in a position to observe the sample population during their combat deployments, in this case, Air Force EOD Combat Veteran Team Members.

Connor and Davidson's (2003) Connor-Davidson Resilience Scale (CD-RISC) was used to assess the resilience of Air Force EOD Combat Veteran Team Leaders. The CD-RISC is a 25-item self-assessment gauged on a 5-point scale. The

scores were added together into a composite number, with higher scores indicating greater levels of resilience. This self-assessment survey was loaded into Survey Monkey, open for 6 weeks, and delivered to the sample population via email, private veteran organizations, word of mouth throughout the veteran community, and social media.

Population and Sample

The target population for this dissertation included Air Force EOD Combat Veterans who served in enlisted Team Leader positions during their deployments to Iraq and Afghanistan. EOD Team Leaders were Staff Sergeants, Technical Sergeants, and Master Sergeants who achieved their "7-Level" certification per the EOD Career Field Education and Training Plan's requirements during their deployment. Air Force EOD Team Members, those grading the performance of the sample population, were Senior Airmen and Staff Sergeants who achieved their "5-Level" certification per the EOD Career Field Education and Training Plan requirements during their deployment. In this dissertation, Iraq and Afghanistan veterans are Air Force EOD Operators who served in either theater long enough to be awarded the Iraqi and Afghanistan Campaign Medals or the Global War on Terrorism Expeditionary Medal. Air Force EOD Team Members who served in an observatory position to evaluate their Team Leaders' combat performance completed the CDPRS via a Survey Monkey link delivered through email and social media engagements. The Air Force EOD Combat Veteran Team Leaders completed the TAKE5 FC and CD-RISC via a direct link to the surveys sent to the participants via email or social media.

Scope and Limitations

The scope of this dissertation included Air Force EOD Veteran Team Members and Team Leaders who, during their deployments, had achieved their "5-level" and "7-level" certifications per Air Force EOD's Career Field Education and Training Plan. Although I intended to discover whether personality traits predicted the combat performance and resilience of Air Force EOD Combat Veterans, the organizational implications are far-reaching. This dissertation revealed that certain

personality traits predicted operational success among Air Force EOD Combat Veterans. These findings might also apply to EOD Combat Veterans in the Army, Navy, Marine Corps, and international militaries, as well as bomb technicians in civilian law enforcement agencies and demining companies. This study also revealed that certain personality markers are related to combat performance and resilience. In that case, those same markers might apply to members in other high-stress career fields with higher-than-average likelihoods of injury or death. Within the Air Force EOD population, identifying personality traits that led to high combat performance should enable EOD leaders to increase job satisfaction, minimize turnover, and forge EOD warfighters to survive better, save lives, and generate airpower in future combat.

Several limitations to this research potentially affect the interpretation and generalization of the results. A significant limitation of this study is the survey-based nature of data collection for the TAKE5 FC, CDPRS, and CD-RISC. Although the TAKE5 FC is a forced-choice test resistant to faking, it still relies on self-reporting, which could distort the accuracy of the sample population's perception of their personality measurements (Drasgow et al., 2012; Trent et al., 2020). Online-based surveys are fraught with problems such as sample population control and a lack of researcher observation (Andrade, 2020).

Time is also a significant limitation of this dissertation. The CDPRS required subordinates to recall events, feelings, and interpretations that were more than 10 years old. This retroactive perception tasking has proved difficult in some contexts (D. Jackson et al., 2022). The CD-RISC has also shown that levels of resilience can improve or regress over time (Connor & Davidson, 2003). Earlier research suggested that personality traits remained stable over time, but recent studies have indicated that personality traits can adapt and change pending certain external factors (Borghuis et al., 2017).

Another limitation of this study is nested within diversity and inclusion. The Air Force tends to be a White-male-dominated enterprise, and EOD's diversity and inclusion numbers are lower than average (*Demographics,* 2020). As of June 2023, the Air Force EOD program was less than three percent female and 11% non-

White. Basing this study on a community with a low representation of minorities potentially limited the generalizability of the results to other, more diverse organizational contexts. Finally, I am an Air Force EOD Operator and Combat Veteran of Iraq and Afghanistan, which might have prompted bias. To mitigate potential bias, I used quantitative methodology and de-identified the data during this dissertation. I also used a methodologist who evaluated and confirmed my findings.

Definition of Terms

In this section, I briefly define key terms in the research that readers who are unfamiliar with Air Force EOD might not understand.

Air Force EOD Enterprise: Since Congress and Headquarters Air Force determine the end-strength requirements for EOD forces, the numbers fluctuate frequently; however, the total force strength for active-duty EOD forces has averaged around 1,300 members in recent history.

Combat Performance: Combat performance is the quick and proficient performance of one's physical, mental, and technical wartime tasks in non-permissive combat environments.

Combat Veteran: An Air Force EOD veteran of Iraq or Afghanistan who served in the conflict for a duration that fulfilled the requirements to receive an Iraqi Campaign Medal, Afghanistan Campaign Medal, or Global War on Terrorism Expeditionary Medal.

EOD Team Leader: An EOD Team Leader in the Air Force is a formerly certified 7-level member with an Air Force Specialty Code of 3E871 who has completed all of their Initial Job Qualification Standards tasks, been active in a flight training program within the past 90 days, and has been evaluated by a local Quality Assurance program (*Air Force Manual 32-3001*, 2022; *Department of the Air Force Instruction* 36-2670, 2020). For this dissertation, all EOD Team Leaders included those who had held a 7-level certification and Staff Sergeant, Technical Sergeant, or Master Sergeant rank at the time of their deployment.

EOD Team Member: An EOD Team Member in the Air Force is a member who holds a 3E8X1 Air Force Specialty code and has been active in their local flight's training program within the past 90 days, had all of their Career Field Education and Training Plan items evaluated by their flight leadership, and has been assessed by a local Quality Assurance program (*Air Force Manual 32-3001*, 2022). For this dissertation, all EOD Team Members were those who held a 5-level certification and Airman First Class, Senior Airman, or Staff Sergeant rank at the time of their deployment.

Master Sergeant: Master Sergeants are the first rank of the SNCO tier, wherein SNCOs begin to "integrate subordinates' talents, skills, and abilities with other teams to effectively accomplish the mission" (*Enlisted Force Structure*, 2022, p. 16). Master Sergeants are technical experts transitioning into the role of leaders of teams and sections of teams (*Enlisted Force Structure*, 2022).

Naval School Explosive Ordnance Disposal: The Navy Explosive Ordnance Disposal School at Eglin Air Force Base in Florida is the sole location for the Department of Defense to train basic skills in the best methods for locating, identifying, evaluating, recovering, rendering safe, and disposing of foreign and domestic weapons, including nuclear weapons (Ward et al., 2008).

Personality Traits: The theory that underpinned this dissertation was McCrae and Costa's (1985) five-factor model, which holds that human personality can be broken down into five basic traits: extraversion, agreeableness, conscientiousness, emotional stability, and openness.

Resilience: The ability to endure stressful and life-threatening situations while remaining mission-capable and mentally stable.

Senior Airman: Senior Airmen have mastered performing at the basic and intermediate levels and are becoming skilled operators and trainers while also beginning to build leadership skills (*Enlisted Force Structure*, 2022).

Staff Sergeant: Staff Sergeants are at the beginning of the Air Force's Noncommissioned Officer Leadership tier and are beginning to develop into technical experts and leaders of other Airmen and teams (*Enlisted Force Structure*, 2022).

Stress: Numerous factors contribute to job stress, such as workload, business hours, and high-stakes mission sets (Syed et al., 2021). In EOD contexts, stress is compounded by the threat of injury or death while performing operations in extremely dangerous contexts (Otto et al., 2021).

Technical Sergeant: Technical Sergeants are seniors in the Junior Noncommissioned Officer Tier and are considered the foremost technical experts in their operational specialties (*Enlisted Force Structure*, 2022).

Type-A Personality: A pattern of behavior generally associated with high levels of competitiveness, assertiveness, impatience, and high achievement (Rychter et al., 2023).

Summary

The U.S. military is on the precipice of losing its competitive advantage against enemies of America, yet warfighter readiness is of utmost importance to the West (Flournoy, 2021). If EOD Team Leaders are not operationally successful and ready for war, America will lose its air dominance and risk defeat in its next war (Crandell, 2020; Tirpak, 2021). If researchers do not immediately leverage and study the experience of previous combat veterans, they will lose the opportunity to apply those lessons to future generations of American warriors. In this study, I attempted to supplement Air Force EOD's recruiting, training, and leadership development effectiveness by examining the relationship between Air Force EOD Combat Veteran Team Leaders' personality traits, combat performance in wartime contexts, and resilience post-combat. I also expanded the literature on personality traits and performance within high-risk career fields. Moreover, I provided Headquarters Air Force with information to reanalyze or update their current Predictive Success Model and suggested practical implications for implementation within initial EOD pipeline training and future leadership development.

Chapter 2 – Literature Review

Behavioral scientists throughout history have observed human behavior to collect, compile, and analyze data to solve consequential problems (Gelino et al., 2023). Behavioral scientists have addressed many difficulties within organizational leadership and offered beneficial models for leaders responsible for hiring, selecting, and developing human talent (Hirsch, 2021; Wada, 2020). The U.S. military presents a unique talent acquisition and development challenge for leaders because its sole purpose is to execute war against enemies of the United States (Knapp & Rumsey, 2023). This challenge has critical implications within the context of extreme recruiting and retention obstacles for the military that come at a pivotal time when the United States desperately needs a decisive combat and deterrence capability (Ching-Hsin, 2023; Coy-Ne & Hall, 2023; Velgach & Arabian, 2023). As such, the U.S. military has turned to various aptitude and personality assessments to select and place their applicants (Nye, White, Drasgow, et al., 2020). Personality traits and cognitive abilities are well-established predictors of performance across various disciplines; however, their exact role relative to organizational outcomes and success is complex and a topic of much research (Baier et al., 2019; Brandt et al., 2020; Hall et al., 2015; Harré, 2021). In this literature review, I consider the theoretical foundations of trait theories of leadership and followership as well as criterion measurement by briefly reviewing the history of aptitude and personality trait assessments and surveying current literature and research on predictive performance relative to organizational outcomes and leadership development.

History of Measuring Military Recruits

Predictors of performance are grounded in decades of human behavioral observation (Weiner & Greene, 2017), yet generational attitudinal shifts in personalities and aptitudes have sparked continued analyses of behavioral developments and trends (Douglas & Gray, 2020; Emory et al., 2022; Lu & Gursoy, 2016; McGinley et al., 2011; Twenge et al., 2015). The military's aptitude assessments began shortly after World War 1 (Gifford, 1990), but recent

developments in research and literature have driven Armed Services leadership to include personality assessments in their arsenal of behavioral prediction (Nye White, Drasgow, et al., 2020). This section includes a review of the history of aptitude and personality theories, specifically as they relate to military recruitment, selection, and job placement implementation.

Aptitude Theory

Many researchers developed numerous influential aptitude models and tests throughout the past century (Lang et al., 2016). Roberts et al. (2000) noted that today's intelligence tests resemble those crafted by pioneers such as Binet, Simon, Yerkes, Wechsler, and many others. Although providing an exhaustive history of aptitude research is outside the scope of this dissertation, this section includes a survey of some key models and names that occupy the path to today's aptitude tests used for military recruitment and selection.

Sir Francis Galton. Galton was arguably the first to use survey methods and statistics of probability to investigate mental characteristics (Chamarette, 2022). He used word association methods to gauge the reactions of several individuals (Mülberger, 2017). Galton's work emanated from a sense of elitism because he assumed that mental ability was inherited and passed down through distinguished families such as the Galton, Wedgwood, and Darwin lineage (Pearson, 1914). Galton ignored the privilege that wealth and aristocracy bestowed upon upper- and middle-class families through land and resource inheritance (Chamarette, 2022). Instead, he extrapolated animal and plant behavior to humans and concluded that desirable attributes could be enhanced in society through more prolific breeding of high-performing families, whereas undesirable attributes could be bred out of the human herd (Galton, 2003; Harding, 1932). Though the ethics of his contributions to behavioral and cognitive sciences are questionable, Galton was the father of applying mathematical statistics to humans' mental and physical characteristics (Clauser, 2007).

Cattell and Bryant. Around the time Galton was doing his work in eugenics, J. M. Cattell and Bryant (1889) used the same types of word association testing to analyze groups of people. Overall, they collected more than 12,000-word

associations from 516 subjects to analyze the differences between individuals and groups of people (Mülberger, 2017). J. M. Cattell and Bryant found that the word associations did not solely depend on the stimuli but varied widely based on the class of the individual. Their findings indicated that aptitudes, at least as measured by word association methods, depended upon one's age, upbringing, and previous training (Mülberger, 2017).

Binet-Simon. Near the end of the 1800s, French students from various educational backgrounds entered public education, so Alfred Binet and Theodore Simon developed a placement test to evaluate their aptitude for continued education and additional coursework (Boake, 2002). Unlike Galton who focused on gifted individuals, Binet and Simon focused on children with learning disabilities (McCredie, 2017). While Binet and Simon were developing the framework of differentiating expected intelligence within different age groups, William Stern refined the idea of mental age and the intelligence quotient, most commonly known as "IQ" (Kovacs & Pléh, 2023). Moreover, as the United States prepared for the First World War, the Binet-Simon test underwent two major revisions (Boake, 2002). Lewis Terman led the second revision, making the revised Binet and Simon scale the dominant measure used in American intelligence testing (Boake, 2002).

Lewis Terman. Lewis Terman revised the original Binet-Simon test and introduced it to the United States, where it underwent numerous other revisions (Dale et al., 2014). Terman (1968) surveyed more than 160,000 children and selected the top 1,500 for a particular analysis. The results revealed that these superior children were more successful in adulthood relative to academic and career achievements. They published more papers, registered more patents, and had higher incomes than children who scored lower on the IQ tests (Terman, 1958). Terman and the other researchers' works showed that intelligence assessments could predict future performance outcomes (Gersh, 1981).

David Wechsler and the Adult Intelligence Scale. The Wechsler Adult Intelligence Scale, currently in its fourth revision, was initially developed as the Wechsler-Bellevue Intelligence Scale (Canivez & Schraw, 2010; Wechsler, 1939). As Wechsler was working with individuals with lower-than-average levels of

education, he expressed concern that the Stanford-Binet test was biased toward people with average-to-high education (Boake, 2002). As such, he created a scale that did not rely on reading but used verbal word comprehension and performance scales (Wechsler, 1939). Wechsler's experience with the military and America's entrance into World Wars fed the utility for mental testing in military recruitment and abilities assessment (Boake, 2002).

Army Alpha and Beta Tests. As the United States prepared to enter the First World War, numerous peaceful activities, such as science and industry, were redirected toward solving problems of national defense (Yerkes, 1921). Aptitude analyses were no exception to this movement; thus, an opportunity arose to inject aptitude theory into the Armed Services' talent acquisition process (Foster, 1923). In 1917, Robert Yerkes began a campaign to convince the Armed Services to adopt intelligence testing and subsequently developed the Army Alpha and Beta tests in the following years (Carson, 1993). As the First and Second World Wars came to fruition, the Army Alpha and Beta tests showed utility in identifying solder aptitude and job placement (Tuddenham, 1948). Others, however, were doubtful about the tests' utility and equity (Atwell, 1937; Rury, 1988).

Migration to the ASVAB. After the World Wars, the U.S. military developed its aptitude and intelligence testing programs through trial and error, using numerous tests, versions, and management frameworks (Maier, 1993). The military's aptitude requirements remained fluid and were eventually unified as the United States migrated from compulsory service to an all-volunteer force and as high schools experienced chaotic recruiting efforts from individual branches of the military (Maier, 1993). The ASVAB currently in use fits awkwardly into intelligence testing because it was developed based on perceived similarities to military occupations instead of psychological or aptitude theory (Roberts et al., 2000). The current ASVAB measures five domains with nine subtests (see Table 3).

Table 3

Armed Services Vocational Aptitude Battery (ASVAB) Domains and Subtests

Domain	Subtest Name	Subtest Abbreviation
Quantitative	Arithmetic Reasoning	AR
	Mathematics Knowledge	MK
Verbal Expression	Paragraph Comprehension	PC
	Word Knowledge	WK
Technical	Mechanical Comprehension	MC
	Automotive & Shop Info	AS
	Electronics Info	EI
Science	General Science	GS
Spatial	Assembling Objects	AO

Supplementing the ASVAB. Although the military has recognized aptitude as an essential component of job placement, there is also an understanding that other attributes are more important for some careers than others (Knapp & Rumsey, 2023). During the Army's Project A, researchers discovered that the ASVAB was useful for predicting technical performance and general soldiering, whereas other noncognitive measures were more suitable for predicting measures such as effort, leadership, discipline, and physical fitness (M. Allen et al., 2023). The ASVAB measures crystallized knowledge, not the ability to acquire new knowledge or conduct novel problem-solving skills (Martin et al., 2020). As such, metrics grounded in psychological theory were added to improve the ASVAB's utility (Carretta et al., 2015; Martin et al., 2020).

Trait Theory

Studying the human mind is a practice with origins as old as the human species (Hergenhahn & Henley, 2013). Since the 4th century BCE, Aristotle, Hippocrates, Plato, and several other philosophers have analyzed and studied human behavior (Graiver, 2021). However, McAdams (1997) argued that personality psychology did not become a distinct discipline in social science until the 1930s. Scientists and academics, building on the work of Freud (1917), Jung (1968), and many others, began to construct the modern understanding of human behavior (McAdams, 1997). Since then, the study of personalities has morphed into a significant component of foundational psychological academics (Piotrowski, 2021; Wu, 2021). Although it is beyond this dissertation's scope to offer an

exhaustive history of psychological trait theory, this section contains a brief review of key individuals and developments on the road to personality testing for job placement and prediction.

Gordon Allport. Allport was a Harvard academic who posited that personality is the unique dynamic of a person that allows them to relate to their external environment (Nichols, 2019). That said, he strived to identify fundamental and pervasive tendencies of human personality rather than superficial traits (F. H. Allport & Allport, 1921). G. W. Allport (1970) also worked tirelessly to identify the roots of discrimination and prejudice within individual and social psychology and their impacts on communities.

G. W. Allport (1927) argued that social sciences needed to attain clear and unambiguous language for those within the discipline to achieve the same precision as those in the physical sciences. He found that terms such as attitude, disposition, factor, and trait were "employed vaguely to suit the needs of the moment" (G. W. Allport, 1927, p. 284). Allport also argued that scientists misidentified personality for factors underlying personality, such as intelligence, physique, and temperament. As such, he sought to rescue the term "trait" from these ambiguous hijackers to make the concept independent, reliable, consistent, and measurable. G. W. Allport and Odbert (1936) reviewed more than 400,000 terms and added 17,953 to a lexical list that they assessed had the capacity to "distinguish the behavior of one human being from that of another" (p. 24). From that list, Allport and Odbert narrowed their collection down to 4,504 words that "symbolize[d] most clearly 'real' traits of personality" (p. 26). From Allport's lexical work, he developed a hierarchy containing three categories of traits (G. W. Allport, 1961). This hierarchy included cardinal, central, and secondary traits, with cardinal traits encompassing single characteristics that potentially motivated a person's actions, whereas central traits were the building blocks of a person's personality (G. W. Allport, 1961). Lastly, secondary traits were less influential and tended to depend on external circumstances (G. W. Allport, 1961).

Raymond Cattell. Cattell was a British-American academic who began his studies in intelligence testing but soon turned to factor analytic methods and their

employment for analyzing personality traits (R. B. Cattell, 1943). Cattell was a prolific publisher with hundreds of articles and books outlining the structure and measurement of personality (Revelle, 2009). He also proposed the idea of fluid and crystallized intelligence, which served as a foundation for aptitude testing (Boyle et al., 2016). R. B. Cattell (1957) specifically furthered G. W. Allport and Odbert's (1936) lexical work by analyzing their lists to eliminate repetitive and redundant information. He created a new lexicon with only 171 trait descriptors, which he used for factor analyses (R. B. Cattell, 1957). After using factor analytic methods, Cattell developed a list of 16 personality factors that he considered the most influential traits for human behavior.

R. B. Cattell's (1957) theory of personality also offered a description or catalyst for human behavior and responses to certain situations. He argued that stimuli drove human responses, and these stimuli provided certain situations and underlying personality structures influenced by a person's personality traits (R. B. Cattell, 1957). Like G. W. Allport (1961), R. B. Cattell (1965) also viewed human behavior through three different lenses and thus collected his data from three distinct human behavioral sources. First, L-Data came from daily behavior and interactions such as academic grades, interactions with friends, and work performance (R. B. Cattell, 1965). Second, Q-Data were related to how a person thought about their behavior and came from a survey measurement (R. B. Cattell, 1965). Finally, T-Data referenced observations about a person's interactions within a controlled laboratory experiment (R. B. Cattell, 1965).

Hans Eysenck. Eysenck was a psychologist and personality theorist who was famous for his theory of personality and intelligence. He worked in London at a psychiatric hospital and evaluated patients during their intake phase (H. J. Eysenck, 1955). Eysenck noted that certain patients tended to answer questions similar to those of their fellow patients, with whom they shared similarities (S. B. Eysenck & Eysenck, 1977). For example, people from certain professions or social situations, such as prisoners, would answer questions similarly (S. B. Eysenck & Eysenck, 1977). H. J. Eysenck (1980) hypothesized that humans perhaps contained certain personality traits that led them into those certain professions. Whereas R. B.

Cattell (1965) boiled down G. W. Allport and Odbert's (1936) list of 4,504 traits to 16 factors, H. J. Eysenck (1983) argued that they were unreliable and difficult to replicate. He narrowed down the 16 personality factors to three simple super factors: psychoticism, extraversion, and neuroticism, also known as the PEN model (H. J. Eysenck, 1983). H. J. Eysenck (1991) felt that Cattell's 16 factors were higher-order factors linked closely to personality types and were a combination of primary personality traits. Psychoticism, extraversion, and neuroticism, on the other hand, were second-order factors (H. J. Eysenck, 1983). H. J. Eysenck (1980) felt that all individuals experienced these three traits to some degree, but that worldview derived from his argument that genetics influenced personality traits. Concerning psychology, nature versus nurture holds a disputed dichotomous relationship (Barlow, 2019). H. J. Eysenck (1980) leaned toward the nature side of this dichotomy but also included nurture within his theory. The nature versus nurture relationship pitted psychoticism against socialization, extraversion against introversion, and neuroticism against stability (H. J. Eysenck, 1991). H. J. Eysenck (1980) moved the field of personality research from simply having a standard collection of terms by offering a model and taxonomy to study human personality traits.

Five-Factor Model of Personality. The pioneering work of Allport, Cattell, and Eysenck led many scholars to develop what became known as the five-factor model of personality (McCrae & Costa, 1985). Fiske (1949) birthed the theory that included five basic personality traits. Tupes and Christal (1992) conducted work for the U.S. Air Force that involved analyzing officer candidates and announced a five-factor model of personality after continually seeing five traits recurring in their test subjects. Norman (1963) recognized the significance of these writings, arguing that the language work carried out by Allport and Cattell represented differences in human behavior and would thus offer a model for personality traits. Operating from that hypothesis, Norman replicated all the work mentioned above and developed a taxonomy of five orthogonal personality factors. Goldberg (1981, 1990, 1992) continued the development of this model by examining trait terms and confirming many of the five-factor structures discovered

by those before him, even coining the term "big five" for the theory. The "Big Five" became prominent with the NEO-PI inventory (Costa & McCrae, 1992; McCrae & Costa, 1985). Since then, numerous personality measurements have emerged grounded in the five-factor model, which measures openness, conscientiousness, extraversion, agreeableness, and neuroticism. Some of these measures include the Big Five Inventory (John et al., 1991), Enneagram (Hook et al., 2021), International Personality Item Pool (Goldberg, 2003), Myers-Briggs Type Indicator (Myers & McCaulley, 1985), NEO-PI (Costa & McCrae, 1992), Ten-Item Personality Inventory (Gosling et al., 2003), and Tailored Adaptive Personality Assessment System (TAPAS; Drasgow et al., 2012). As the literature expanded to characterize and define personality traits, so did pioneering research to link them to employee selection (Scholarios et al., 1994).

TAPAS. The use of personality tests for assessing job placement and predicting performance within the U.S. military is far less storied than aptitude tests and the ASVAB (Nye, White, Horgen, et al., 2020). The military began to dabble in personality testing for performance prediction in the 1980s with the Army's Assessment of Background and Life Experiences (ABLE) survey, measuring effort, leadership, discipline, fitness, attrition, and citizenship factors (Hough et al., 1990). The Army quickly discovered that subjects could easily fake the ABLE's Likert scale, which almost destroyed its predictive validity for performance (Zickar et al., 2004). This discovery drove White and Young (1998) to develop the Army's Assessment of Individual Motivation (AIM). The AIM followed a forced choice format, which drove candidates to pick a "most like me" or "least like me" choice to mitigate faking on the assessment (Knapp et al., 2004). The AIM worked well for the Army, but as time progressed, the need arose for a modernized personality assessment (Drasgow et al., 2023).

The TAPAS provided the U.S. military with a modernized and computer-based personality assessment for selecting and classifying human talent (Drasgow et al., 2023). Using Goldberg's (1992) big-five personality framework, the TAPAS designers developed 22 facets that all fit within the openness, conscientiousness, extraversion, agreeableness, and emotional stability factors (Drasgow et al., 2023).

From 2006 to 2009, the Army conducted an Expanded Enlistment Eligibility Metrics project that tested the TAPAS for use with the ASVAB (Knapp & Heffner, 2010). The military began implementing TAPAS testing at Military Entrance Processing Stations in 2009 and has administered the TAPAS to more than two million applicants as of the Drasgow et al. (2023) Interim Report. During this period, the TAPAS has undergone numerous revisions and has been the subject of much research and continues to feed Predictive Success Models for 12 Air Force specialties, including EOD, as of October 2022 (Drasgow et al., 2023). The current TAPAS version measures six domains with 15 facets (see Table 4).

Table 4

Tailored Adaptive Personality Assessment System (TAPAS) Domains and Facets

Domain	Facets
Openness to Experience	Tolerance
Conscientiousness	Achievement
	Non-Delinquency
	Responsibility
	Self-Control
Extraversion	Dominance
	Attention Seeking
	Sociability
Agreeableness	Cooperation
	Selflessness
Emotional Stability	Adjustment
	Even Tempered
	Optimism
Other	Physical Conditioning
	Situational Awareness

Psychological Trait Theory

The theoretical background of this research paper rests upon the trait theory of leadership. Scholars lack a unified theory of leadership traits, and no singular author or group claims ownership of the theory. That said, in the last several decades, volumes of literature have been generated to attempt to identify the traits of successful and effective leaders (Dinh & Lord, 2012; Kirkpatrick & Locke, 1991; Lord et al., 1986; Stogdill, 1974; Zaccaro et al., 2017).

Personality and Performance

Scholars have measured leadership personality traits against work behavior and leadership styles (Schattke & Marion-Jetten, 2022), process improvement

(Bagherian et al., 2023), school administration (Person et al., 2021), and a range of other performance variables (S. H. Allen & Gallagher, 2022; Carleton et al., 2018; Dinler & Balcı, 2021). Researchers have also considered how leaders might predict organizational performance (Abdelmegeed Abdelwahed et al., 2023; Judge & Zapata, 2015; Nye et al., 2022). Sonnentag and Frese (2001) conducted a meta-analysis and concluded that throughout 20 years of research through the late 1990s, in more than 72% of research, individual performance served as a dependent variable. It is no surprise, then, that trait theory and organizational performance reached an intersection where personality traits were employed to predict how leaders and followers performed within their given organizations (Melis & Nawaz, 2023; Murmu & Neelam, 2022; Rodríguez-López et al., 2023). Hasel (2013) argued that the traits of successful leaders depended upon the contexts in which they operated. However, the literature lacks sufficient analyses of personality trait theory and performance in operational combat contexts.

Five-Factor Model as a Predictive Theoretical Foundation

Personality theory has been used to predict personal values, attitudes, and behaviors throughout various contexts (R. B. Cattell & Tregaskis, 1965; L. Huang et al., 2014; Landers & Lounsbury, 2006). As the study of personality psychology evolved, researchers added an element of cognition to psychology, shifting its focus from human behavior (Maestripieri & Boutwell, 2022). Adding this cognition element to the field of personality psychology advanced the understanding of the traits that make people unique and similar in their patterns of thinking, feeling, and behaving; thus, numerous theories based on human personality were formed (Arshad & Chung, 2022). Humanistic theories such as Maslow's (1943) hierarchy of needs and Rogers' (1959) self-actualization theory emerged. Other personality theories developed to explain or predict human behavior included the expectancy-value theory (Rotter, 1954), social learning theory (Bandura, 1977), and behaviorism theory (Skinner, 1974). Research also emerged demonstrating that personality traits influenced employee behavior (Greenidge & Coyne, 2014; Mount et al., 2006; Walumbwa & Schaubroeck, 2009) and supported the idea that personality traits are valid predictors of numerous workplace performance criteria

(Sackett & Walmsley, 2016). In these organizational settings, personality psychologists loyal to type assessments, such as the Meyers-Briggs Type Indicator, usually relent that type-based personality assessments should not be used to hire and recruit candidates (Lloyd, 2022). Trait-based measures grounded in the five-factor model, however, are often used for recruitment and promotion of employees, although this tactic is not without criticism (Paul, 2005). Ewen (2010) argued that the five-factor model is a foundation for psychological trait theory and dominates the landscape of academic psychological research. Other scholars have researched potential links between the five-factor model and leadership effectiveness (Judge et al., 2002; Sackett & Walmsley, 2016). Because a surrogate for the TAPAS was used in this dissertation, and the TAPAS is based on the five-factor model, the five-factor model served as the theoretical foundation for the predictive personality portion of this research (see Drasgow et al., 2023). The five-factor model measures openness to experience, conscientiousness, extraversion, agreeableness, and emotional stability (Costa & McCrae, 1992; McCrae & Costa, 1985).

Openness to Experience.

Organizational Performance. Openness to experience is generally associated with one's tendency to seek new sensations as well as adventuresomeness and creativity (Skuzińska et al., 2023). Research showed that openness to experience positively correlated with outside-the-box thinking and innovative organizational behavior (Park et al., 2018; Yesil & Sozbilir, 2013). Cui et al. (2023) found that openness to experience mediated unfavorable relationships between cognitive diversity, knowledge sharing, and innovative work behaviors. Individuals who scored high in the openness to experience area typically displayed a high tolerance for ambiguous environments and increased sensitivity toward others' emotions (X. Chu et al., 2015; McCrae & Greenberg, 2014). These individuals are characterized by an uncommon ability to integrate new beliefs and information into their thought processes to broaden their perceptions and opinions (McCrae & Greenberg, 2014; Woo et al., 2014).

Mental Health and Resilience. Researchers disagree on the correlation between openness to experience and specific mental health and resilience

components. McCrae and Greenberg (2014) and Skuzińska et al. (2023) noted that openness to experience did not show a statistically significant positive correlation with mental health. However, extensive research has linked openness to experience with better perceptions of stress and healthier coping mechanisms to stressful situations (L. Burgess et al., 2010; Meléndez et al., 2020; Straud et al., 2015). As such, Williams et al. (2009) argued that individuals with higher levels of openness to experience demonstrated greater resilience to stressful contexts. Openness to experience also showed a slight correlation to higher purposes in life for military veterans (Fischer et al., 2023).

Military Contexts. Research explicitly relating openness to experience with performance in military contexts is lacking. J. S. Campbell et al. (2009) found that military pilots scored higher in the openness to experience area than average citizens across the American population. J. J. Jackson et al. (2012) discovered that German soldiers with low openness to experience scores tended to complete their terms of military service instead of seeking civilian employment opportunities, revealing a lower overall openness score across the German military population (Klee & Renner, 2016). Higher levels of openness to experience correlated with more balanced family lives among American combat medics in their training pipelines (Escolas et al., 2016). However, no research exists linking openness to experience with the performance of EOD duties in combat or resilience after deployment.

Conscientiousness.

Organizational Performance. The personality trait of conscientiousness is associated with the propensity to be hardworking, orderly, arranged, and disciplined (Halfhill et al., 2005; Moreland et al., 2023). Conscientiousness has been linked to numerous criteria and outcomes within the organizational sphere. For example, conscientiousness showed a curvilinear relationship in helping those with lower general mental abilities perform better within their organizational contexts (Harris-Watson et al., 2022). In academic contexts, optimism increased performance among students with high levels of conscientiousness but lowered performance among those with lower levels of conscientiousness (Icekson et al.,

2020). Conscientiousness has been studied concerning abusive leadership (Srikanth et al., 2022), time management (Waldeyer et al., 2022), engagement-boredom organizational dynamics (Dishon-Berkovits et al., 2023), salespeople performance (Wihler, Meurs, Momm, et al., 2017), safety climate (Xu et al., 2020), and a litany of other organizational outcomes (Carter et al., 2014; Ohme & Zacher, 2015; Rice & Reed, 2022). Chaparro et al. (2020) found that civilian pilots tended to score higher in conscientiousness but failed to find the same level of correlation among military pilots, indicating a potential difference in conscientiousness needs between military members and the civilian population.

Mental Health and Resilience. Numerous researchers have investigated the correlations between conscientiousness and mental health. For example, conscientiousness displayed a negative correlation with anxiety, depression, and perceptions of stress among Chinese youth during COVID-19 (T. Liu et al., 2022). However, Farahani et al. (2019) posited that conscientiousness displayed a non-linear relationship when measured against various mental health outcomes. Research revealed that individuals with higher levels of conscientiousness were more likely to seek healthcare for physical and mental problems (Willroth et al., 2023). Specific to resilience, conscientiousness has been related to numerous organizational criteria such as outcome resilience (Linnemann et al., 2022), career resilience (Arora & Rangnekar, 2016a), and supermarket employee resilience (Çıvgın et al., 2023). No studies, however, have linked conscientiousness to EOD veteran resilience.

Military Contexts. Unlike openness to experience, the conscientiousness personality trait has been heavily researched relative to numerous military-related outcomes. For example, in Nigeria's armed forces, conscientiousness was linked to work methods of control contributing to security force well-being (Ujoatuonu et al., 2022). Conscientiousness was also found to mitigate risks for suicide among high-risk U.S. and Chinese military veterans with posttraumatic stress disorder (J. Huang et al., 2019; Straus et al., 2019). Dutch and American Special Forces operators tended to score higher in conscientiousness compared to civilian populations (Bech et al., 2021; Huijzer et al., 2022). Military groups who scored higher in

conscientiousness performed better as a group than teams with lower scores (Halfhill et al., 2005), and individually, they performed better on situational judgment tests (Brown et al., 2021). Coastguardsmen with higher levels of conscientiousness generally demonstrated higher levels of organizational commitment, which were mediated by courage, an important trait in combat (Mert & Köksal, 2022). Calleja et al. (2020) found that conscientiousness predicted higher leadership planning and performance levels among junior officers. However, lower scores in conscientiousness resulted in higher alcohol use and other unhealthy coping mechanisms, such as verbal defensiveness and suicidal ideations among military members involved in handling stressful situations (Herzog et al., 2022; Na et al., 2023; Ridgway et al., 2023). Despite the vast research in military contexts relative to conscientiousness, no research exists on the correlation between conscientiousness and EOD combat performance or resilience.

Extraversion.

Organizational Performance. Extraversion is the tendency to be outgoing, warm, assertive, and talkative (Darr et al., 2018; Moreland et al., 2023; Mueller et al., 2019). Research indicates that extraversion is also related to one's level of confidence (Burns & Burns, 2016). Some research supported a two-dimensional framework of extraversion that highlighted assertiveness, dominance, and directive natures of extraverts whereas other studies focused on expressiveness and social influence (Darr & Kelloway, 2016; DeYoung et al., 2007; Drasgow et al., 2012; Judge et al., 2013). Wihler, Meurs, Wiesmann et al. (2017) argued using the trait activation theory that extraversion only affected organizational performance when paired with social competency within the proper work contexts for engagement. Ziegler et al. (2014) found that extraversion was not a significant predictor of first-year training success in organizational contexts; however, some of the sub-facets of extraversion predicted success in limited training environments. Lievens et al. (2009) found that extraversion negatively impacted training success due to trainees' need to socialize, which interrupted their focus and dedication to learning.

Mental Health and Resilience. Numerous studies have shown extraversion's positive correlations with beneficial mental health outcomes

(Gniewosz, 2023; Tian et al., 2019; Wang et al., 2023). Extraversion has been negatively correlated with posttraumatic stress disorder cognitions (Kotov et al., 2010; Yalch & Levendosky, 2016; Yalch et al., 2021) and was found to decrease suicidal ideations when aggravated by stressors such as sleep deprivation (Killgore et al., 2022). That said, extroverts tended to receive more social support through their outgoing nature and levels of likeability and popularity (Nikitin & Freund, 2015). Research revealed that extroverted people were more negatively affected by imbalances in work-life conflicts relative to well-being (Huo & Jiang, 2023). In line with Wihler, Meurs, Wiesmann, et al.'s (2017) argument about trait activation theory discussed above, Gniewosz (2023) found that extroverted individuals tended to react negatively to situations such as the COVID-19 pandemic when their extraverted tendencies were tampered. However, other researchers showed that extraversion was positively linked to resilience and the ability to effectively cope with traumatic experiences (Cuartero & Tur, 2021; Shen et al., 2021).

Military Contexts. Extraversion has also been used to study individual effectiveness within specific military contexts, but many of the research projects were within the mental health realm concerning suicidal ideations and posttraumatic stress disorder among veterans (Caska & Renshaw, 2013; Killgore et al., 2022; Moreland et al., 2023; Staugaard et al., 2015). Huijzer et al. (2022) found that extraversion was an important personality trait for high-risk, dangerous military fields. Saxon et al. (2020) found an association between high extraversion and increased graduation from Marine Corps Reconnaissance School. Darr et al. (2018) found that extraversion was a mediating factor that influenced soldiers' motivation to train. Although Michałowska-Sawczyn et al. (2019) studied extraversion concerning combat sports, no apparent research exists on the relationship to military wartime combat.

Agreeableness.

Organizational Performance. In organizational contexts, agreeableness has been researched across a vast landscape of issues and shown to correlate with emotional intelligence (Hellwig & Schulze, 2023), team performance (Bradley et al., 2013), team communication (Macht & Nembhard, 2015), and several other

outcomes (Arora & Rangnekar, 2016b; F. Chu et al., 2019; Guay et al., 2013). Interestingly, agreeableness is also a well-researched subject in employee performance. Nandkeolyar et al. (2022) found that female performance evaluations increased as their agreeableness increased, indicating that expectations of agreeableness likely influenced their perceptions of organizational performance. However, research also showed that leaders and managers with high levels of agreeableness tended to offer high performance ratings even if their followers performed poorly (Randall & Sharples, 2012; Yun et al., 2017). Schippers (2014) argued for a positive view of agreeableness and noted that those with high levels of agreeableness would compensate for social loafing on teams, meaning that highly agreeable people made up for lower-performing individuals in their organizations. Generally, those with higher agreeableness have better interpersonal relationships in their work lives but tend not to hold others accountable (John Bernardin et al., 2016; Rollings et al., 2023; Schmidt, 2018). Agreeableness was positively correlated with innovation in some studies (Rahman et al., 2023) and negatively related to the originality of ideas in other studies (Hunter & Cushenbery, 2015). Agreeableness also showed positive correlations with productive approaches to problem-solving within specific disciplines (Cam & Alkal, 2020).

Mental Health and Resilience. Agreeableness has been found to correlate with numerous mental health outcomes (Jangjeet et al., 2019; Willroth et al., 2023). Research suggested that agreeableness moderated the impacts of specific daily stressors such as parental phubbing among adolescents (Bai et al., 2020). Other research showed that agreeableness helped teleworkers navigate the stressors of working from home during the COVID-19 pandemic (Meagher & Cheadle, 2020). Han et al. (2023) argued that agreeableness increased nurses' competency to offer spiritual care to patients with mental health problems. Numerous studies also revealed that agreeableness was linked to increased resilience (Chhabra et al., 2023; Das & Arora, 2020; Marica & Maftei, 2021; Oshio et al., 2018; Punová, 2022).

Military Contexts. Agreeableness resulted in better group performance by military service teams (Halfhill et al., 2005) and positively mediated the relationship between team cohesion and well-being in military contexts (Reizer et

al., 2023). Na et al. (2023) found that agreeableness tended to decrease the levels of persistent high alcohol consumption among military members. Combat veterans who possessed more elevated levels of agreeableness also reported lower levels of posttraumatic stress disorder (Plouffe et al., 2023). In an earlier research project, Lim and Ployhart (2004) found that agreeableness was negatively related to transformational leadership tendencies. Aside from those studies, the literature lacks an analysis of agreeableness' effect on technical performance in combat.

Emotional Stability.

Organizational Performance. Neuroticism is negatively linked to emotional stability and increases sensitivity to stressful or traumatic situations (Hisler et al., 2020). The adverse effects of neuroticism on job performance have been well documented across various organizational contexts (Deniz Günaydin, 2021; Judge et al., 2013; Masood et al., 2017; Zell & Lesick, 2022). Aside from performance, neuroticism has also been associated with higher levels of workaholism and emotional burnout in organizational contexts (Balducci et al., 2021; Giannini & Loscalzo, 2016; Thoresen et al., 2003). Although neuroticism has traditionally been associated with negative outcomes, some studies indicated that those with high neuroticism (low emotional stability) performed slightly better in specific contexts, such as when the task required a person to gain status or acquire large amounts of attention (Bendersky & Parikh Shah, 2013; Tewfik et al., 2023; Wood et al., 2022). Other studies revealed an indirect link between neuroticism and performance by demonstrating a link between low neuroticism and obesity, which is correlated with lower performance across various performance outcomes (Olivo et al., 2019). In a recent study, Uppal (2017) explored curvilinear relationships between neuroticism and job performance and showed that the negative relationships between neuroticism and performance were mediated by factors such as social support. Neuroticism has also begun to show non-linear and linear impacts on mental health outcomes (Klinger-König et al., 2018).

Mental Health and Resilience. Research indicates that neuroticism is significantly linked to mental health outcomes (Gale et al., 2016; Sandhu & Kaur, 2021; Wenzel et al., 2015; Zhang et al., 2021). In general, those with higher levels

of neuroticism tended to see the world through darker lenses and had unfavorable levels of mental health (Junça-Silva & Silva, 2022). Neuroticism is also believed to worsen the posttraumatic and depressive outcomes stemming from childhood abuse and trauma (Knight et al., 2023). Other mental health outcomes, such as early childhood depression and long-term resilience deficits, were linked to neurotic tendencies (Chen et al., 2023). Cuartero and Tur (2021) argued that neuroticism diminished individuals' resilience relative to their ability to acquire skills to protect them from adverse and stressful situations.

Military Contexts. Neuroticism has been studied in several military contexts. Lower levels of neuroticism have been linked to successful basic training graduation rates (Le et al., 2011). Low neuroticism scores were also associated with successful military pilot training (J. P. Campbell et al., 2010). Huijzer et al. (2022) found that commandos scored lower on neuroticism than civilians and candidates who dropped out of their training pipeline. Israeli Defense Forces officer candidates also tended to score lower on measures of neuroticism (Iversen et al., 2023). Niziurski and Berntsen (2018) found that neuroticism predicted soldiers' levels of homesickness during deployments to Afghanistan. Dretsch et al. (2022) found that U.S. Army soldiers' levels of neuroticism increased after a 12-month combat deployment. In a recent research project comparing Russian Alpinists and Special Forces soldiers, Alpinists scored higher levels of neuroticism than Special Forces (Apalkova et al., 2021). This research supported the position that neuroticism is positively associated with risk-taking tendencies (N. Liu et al., 2022; Peters et al., 2020).

Recent Literature for Military Performance Measurement

The Air Force uses aptitude and personality metrics in constructing Predictive Success Models that are generally based on training outcomes. Predictive Success Models use training data such as academic grades and practical performance for rated officers as measured by check rides and daily flight performance (Woolley et al., 2023). For enlisted members, researchers have focused their predictive analyses on the recruits' likelihood of completing initial

career training (Trent et al., 2020). Although the ASVAB and TAPAS are institutionalized predictor measures, determining the criteria for measuring and defining success remains a problematic and costly problem for military leaders.

Criterion Measurements

Selecting the criteria for measuring military talent and performance is a particularly unique challenge for military leaders (J. P. Campbell, 2023). J. P. Campbell et al. (1993) defined job performance as a mixture of declarative knowledge, procedural knowledge and skill, and motivation. M. Allen et al. (2023) recommended that military leaders consider a litany of issues, such as training success, technical performance, retention, and combat performance. However, Knapp and Rumsey (2023) posited that the literature is replete with criterion measures that are "of limited relevance, contaminated, too narrowly focused, and unreliable" (p. 273). Much of the research about military criterion measurements is focused on entrance requirements, yet enlisted military applicants typically lack a robust employment history or technical experience within their fields of interest (M. Allen et al., 2020; Velgach & Arabian, 2023). As such, recruiters must select and assign individuals and predict their combat effectiveness solely based on screening tests and assessments (Velgach & Arabian, 2023).

Researchers disagree about the outcome variables for measuring the effectiveness of those screening tests and assessments relative to performance and success among military occupations (Knapp & Rumsey, 2023). Some experts support criteria that measure "can-do performance," others prefer "will-do performance, whereas many argue that a mixture of can-do and will-do measures is optimal (M. Allen et al., 2020; J. P. Campbell & Knapp, 2001). Gebhardt and Baker (2023) cautioned that performance measures can quickly become overly complex, exceed the actual requirements of professions, and needlessly disqualify too many applicants from certain specialties. Due to these factors, leaders should consider balancing competing priorities of organizational goals and mission needs, as they align with adverse impacts on diverse pools of individuals, when designing and implementing performance measures (Burgoyne et al., 2021; Knapp & Rumsey, 2023; Sackett et al., 2010).

Training Data. Enlisted criterion measures are commonly tied to success and failure metrics from training events due to the availability and convenience of the data (Carretta & King, 2008; Knapp, 2006; Russell, Allen, et al., 2023; Waugh & Russell, 2005; Yu et al., 2023). Unfortunately, because the landscape of military training is diverse, success is not commonly defined and likely depends on various measures of knowledge-based or performance-based assessments (Held et al., 2014; Knapp & Rumsey, 2023). The Air Force exclusively uses training data to evaluate selection methods and create predictive success models (Trent et al., 2020; Woolley et al., 2023). The literature is replete with examples of training increasing organizational performance and mission success, but those reports generally focus on the quality of training or compare training against a lack of training and they lack an evaluation of EOD performance in combat (Saks, 2022; Yao et al., 2020). In this literature review, I did not locate studies comparing varying performance levels in training, such as the performance of individuals who thrived in training, to those who passed by only meeting the minimum requirements.

The current training success model in the Air Force relies on task success instead of one's ability to operate in austere and diverse environments (Carberry, 2023; Cornell-d'Echert, 2012). Russell, Ingerick, et al. (2023) argued that the criteria should also be used to measure job proficiency relative to knowing facts and principles about a job and how to perform specific tasks and functions. Cornell-d'Echert (2012), on the other hand, argued that those focused on modern warfare must train beyond task success and completion and focus on adaptability and irregular warfare as markers for success. Carberry (2023) argued that Air Force training is unidimensional and measured via pass-fail metrics that fail to capture accuracy, time, and decision-making. Currently, the EOD community gauges its training success based on task completion standards with pass-fail proficiency codes (*Career Field Education and Training Plan 3E8X1*, 2020).

Post-training attrition and degrading mission readiness are potential indicators of the inadequacy of training data as a foolproof success measure. The Government Accountability Office (2017) noted that between 2005 and 2015, the U.S. military recruited 1.7 million members at a cost of 75,000 dollars per person,

but 25% of the recruits did not complete their first term of enlistment. The Australian Defense Force loses 31% of its first-term military personnel to attrition annually (Hoglin & Barton, 2015). The U.S. Army spends 137 million dollars annually to recruit and train soldiers to replace those removed from the service due to physical performance deficits (Turner et al., 2022). The Air Force maintenance community is losing higher-than-average numbers of first-term Airmen due to poor working conditions and stress management despite the successful completion of initial training (Government Accountability Office [GAO], 2019). Military attrition occurs for various reasons and at different stages of service members' careers. The literature on the rates of post-training attrition is either lacking or not released to the public. However, the GAO (2022) found that mission capability rates in the Air Force and Navy have declined since 2015, all driven by individuals who completed their initial job training pipelines. This decline in mission readiness supports the notion that the completion of initial training does not necessarily equate to mission success and calls into question its use as a performance predictor.

Finally, some researchers doubt the efficacy of training data compared to other criterion measures. M. Allen et al. (2023) ranked training data last in a list of four groups regarding their authenticity in measuring performance. Gebhardt and Baker (2023) noted that training standards do not automatically align with on-the-job performance expectations. Thus, selection models that use training standards should be carefully evaluated for efficacy. Garavan et al. (2019) also argued that the methodologies used to link training to organizational performance are at risk of potential validity concerns and must be reevaluated. M. Allen et al. (2023) noted that the Air Force's use of training school grades and pass-fail measurements should be considered administrative rather than performance data.

Administrative and Records-Based Criterion. Recent literature has considered the likelihood of military departments employing administrative records as criteria for performance due to their convenience and availability (Yu et al., 2023). Administrative data include annual performance reviews, military decorations, quarterly and annual awards, separation information, discipline, and punishments (M. Allen et al., 2023; Yu et al., 2023). M. Allen et al. (2023) found

that administratively based criterion measures generally scored lower in psychometric quality than other methods.

The Air Force uses an enlisted evaluation system to measure the annual performance of their enlisted members (*Department of the Air Force Instruction* 36-2406, 2023). Enlisted evaluations are likely poor performance markers because they are subject to contamination by raters, personal likability, stereotypes, generalizations, and attenuated variances (O'Leary & Pulakos, 2017). For projects such as this dissertation, Air Force enlisted evaluations would fail to accurately measure the sample population because the Air Force uses forced distribution and stratification systems that measure EOD Operators against Air Force members from other career fields (*Department of the Air Force Instruction* 36-2406, 2023). Several researchers have questioned the effectiveness of forced distribution and stratification systems relative to their efficacy of measuring and rewarding performance; thus, employing ratings grounded in a forced distribution system would not result in reliable data to effectively measure operational performance (Chattopadhyay, 2019; Giumetti et al., 2015; Loberg et al., 2021; Moon et al., 2016).

Other administrative criteria measurements could be based on awards, punishments, or promotion rates, but these aspects of performance are also problematic (M. Allen et al., 2023; Yu et al., 2023). The literature is rife with support that award programs do not always incentivize the organizational behavior they are touted to promote (Chalmers, 2011; Ge et al., 2022; Kirby et al., 2015; Seppala & Smith, 2020). Regarding disciplinary issues, the Air Force released two keystone reports, noting disparities among minorities concerning punishments and discipline (*Report of Inquiry Addendum*, 2021). Although the report did not suggest any causal factors for the disparities, it certainly generated doubt regarding the efficacy of using punishments and discipline as criterion measures for gauging the desired performance in recruiting, training, and developing human talent. Finally, administrative outcomes, such as promotion, are based on the number of slots available within that organization and do not directly reflect the individual's

performance (M. Allen et al., 2023; Yu et al., 2023). Thus, promotion rates are also an unreliable measurement of performance.

Competency Modeling. Competencies are an emerging approach under development in the Air Force to measure performance (*Air Force Handbook 36-2647*, 2022; Barelka et al., 2019; Barron & Rolwes, 2020). Air Force leadership assessed that knowledge, skills, abilities, and other attributes that "contribute to a culture of high performance" should be observable through actions and behaviors (*Air Force Handbook 36-2647*, 2022, p. 4). Competencies, however, usually refer to "soft skills" such as flexibility, teamwork, adaptability, and communication that are not directly linked to specific tasks but instead are based on one's potential to master tasks after the initial training (Rodriguez et al., 2002; Russell, Ingerick, et al., 2023).

Per the Air Force guidance that governs competency modeling, the traditional means of performance measures require Airmen to run through a series of task-centric checklists, whereas competency modeling focused on behaviors critical to job performance (*Air Force Handbook 36-2647*, 2022). Due to resource constraints, the military has not adopted costly interview methodologies to establish competencies but has instead mimicked numerous competencies identified as applicable across civilian occupations (Russell, Ingerick, et al., 2023). For example, the U.S. Air Force used Spencer and Spencer's (1993) competencies to establish a military baseline for foundational competencies (Russell, Ingerick, et al., 2023). However, military leaders should use caution when employing civilian competencies. Although most military members spend the bulk of their time in garrison conditions, their expected performance should be evaluated based on austere wartime combat conditions in high-risk and high-stress contexts (Velgach & Arabian, 2023).

The competency model is subject to tension when faced with occupationally nuanced requirements. The problem with competencies and soft skills is that if they are not linked to job tasks, subject matter experts within the discipline must infer the importance of the competency to skills within their profession (Schippman et al., 2000). Barron and Rolwes (2020) used that construct for their research by

selecting 35 enlisted career fields and tasking subject matter experts within those career fields to identify essential and less-important competencies for their professions. They found that specific "clusters" of competencies were shared across certain career fields (Barron & Rolwes, 2020). For example, strategic thinking was important for intelligence and finance careers, whereas flexibility and resilience were more critical for aviation and investigators (Barron & Rolwes, 2020). Other competencies have demonstrated usefulness in Mission Essential Tasks measured at a higher level than the specific tasks and have shown potential to be used in broader contexts when professions share competency needs (Alliger et al., 2013).

Although competencies focus on broader success measurements instead of narrowly defined job tasks, the need for occupationally specific measurements still exists due to the nuanced nature of certain professions (Barron & Rolwes, 2020; Knapp & Rumsey, 2023). The Air Force is building two sets of competencies (*Air Force Handbook 36-2647*, 2022). The first is foundational competencies that apply to all Airmen and serve as the core of developmental capability (*Air Force Handbook 36-2647*, 2022). The second set includes occupational competencies, which apply to Airmen within a specific workforce community (*Air Force Handbook 36-2647*, 2022). To date, the Air Force EOD community lacks occupational competencies, and research on competency modeling's ability to predict task-based EOD outcomes is lacking.

Career Field Specific Measures. Developing occupationally fair and relevant measures presents numerous challenges due to the diversity of military specialties, problems differentiating between jobs and roles, evolving demands and threats, and demands on time and money to create job-specific criterion measures (Gebhardt & Baker, 2023; Russell, Ingerick, et al., 2023). Ellis et al. (2023) noted that cross-functional criterion measures should be developed to measure performance across joint services. However, Russell, Allen, et al. (2023) argued that occupation-specific measures are important for talent matching and conceded that developing such measures is difficult. Knapp and Rumsey (2023) lamented a lack of occupational data sources for designing appropriate criterion measures beyond training.

The latest round of criterion measurement research involved evaluating numerous measurements and taxonomies to gauge military members' performance (M. Allen et al., 2023; Russell, Allen, et al., 2023). For cross-job taxonomies, researchers evaluated J. P. Campbell's (2012) model, Bartram's (2005) eight competency model, and the Zaccaro et al. (2012) leader performance model. To measure domain-specific behaviors, researchers employed measurements to gauge organizational citizenship behavior, cross-cultural behavior, adaptability, ethical performance dimensions, engagement, team performance, active listening, counterproductive work behavior, and individual team performance (Dorsey et al., 2017; Klafehn et al., 2019; Macey & Schneider, 2008; O'Shea et al., 2009; Pulakos et al., 2000; Russell et al., 2006, 2017; Shuffler et al., 2012; Spector et al., 2006). Regarding military-specific performance, they used scales measuring first-term performance, combat performance, military training performance, and situational awareness (Matthews et al., 2011; Sager et al., 2005; Wasko et al., 2012; Waugh & Russell, 2005). Still, these studies were meant to find joint-service and cross-functional performance taxonomies but none included measurements against Air Force EOD Team Leaders.

Current EOD Performance Measurement. The current state of Air Force EOD performance measurement is not postured to capture different performance levels nor deliver quality data for research purposes. The U.S. Air Force Recruiting (2021) video for EOD indicated that operators must display excellent communication, problem-solving skills, keen attention to detail, emotional stability, physical fitness, and an understanding of physics, mechanics, and electrical theory, yet no operational scale exists to validate or measure any of these criteria for U.S. Air Force EOD Technicians. Instead, EOD technicians navigate upgrade training through a series of pass-fail tasks which, if failed, can be repeated countless times within a given period (*Air Force Manual 32-3001*, 2022; *Career Field Education and Training Plan 3E8X1*, 2020; *Department of the Air Force Instruction* 36-2670, 2020). Under this construct, a scoring gradient to discriminate between high and low performance is absent. Air Force EOD Operators who take multiple attempts to barely pass their evaluations and Air Force EOD Operators who flawlessly pass on

the first attempt are all given the same skill level and recognized with the same level of success.

Combat Performance and Resilience as Emerging Criterion Measurements

Combat Performance. In only a few studies, combat performance has been used as a criterion for leadership development and talent management. The literature on combat performance tends to focus on physical and mental fitness relative to human performance (Diaz et al., 2018; Harty et al., 2022). Earlier studies broached the idea of using combat performance as a measure, but these articles are rare, dated, and did not thoroughly navigate leadership development (Shirom, 1976; Whitmarsh & Sulzen, 1989). Some military career fields, such as fighter pilots, use a scaled form of combat performance, yet no such measurement exists for ground combat functional communities such as EOD (Mansikka et al., 2021).

To fill this void, Wasko et al. (2012) developed the Combat/Deployment Performance Rating Scale for the Army's Class research project. They developed the measure in three phases. First, they derived evaluation dimensions by reviewing the Soldier Combat Evaluation form (Dover, 2002), the Combat Performance Questionnaire, Combat Performance Prediction Scales (J. P. Campbell & Knapp, 2001), and survey results by Keene and Halpin (1993) about combat preparedness. After gathering these data, Wasko et al. (2012) used Army-wide performance rating scales and created a taxonomy with dimensions and combat-oriented definitions for further analyses. The second phase involved 30 noncommissioned officers with deployment experience who rated the criticality of each dimension and created incident scenarios from their deployment experience. Those incidents were used in the third phase to develop behaviorally anchored rating scales for the dimensions and to revise the CDPRS based on subject matter expert feedback.

The CDPRS failed to provide enough variance in the Army Class project to be useful for their research purposes. However, the CDPRS was administered at a point in the research when poor performers would have likely been lost to attrition; thus, they were not included in the sample population. This method of administration likely failed to assist in recruiting high and low performers for the CDPRS to show variance in combat performance.

Resilience. Resilience has not been studied as a predictive success or performance measure, yet the importance of resilience during and after combat operations is well established. Research revealed that military members tended to be more resilient than civilian members (Sanborn et al., 2022). However, military members' exposure to extreme trauma showed negative impacts on their short- and long-term health (Bovin et al., 2023). Post-9/11 veterans with posttraumatic stress disorder have shown higher struggles with verbal and visual functions as well as functional impairment (Aase et al., 2023; C. E. Jackson et al., 2021). Van Der Meulen et al. (2020) argued that resilience impacted military members' ability to continue functioning effectively after traumatic events. As such, resilience is likely an important measurement to gauge enduring performance within large-scale military operations at length.

The Connor-Davidson Resilience Scale has been used to assess resilience across a broad spectrum of military contexts. Although Green et al. (2014) argued that a two-factor CD-RISC model was best used when assessing Iraq and Afghanistan Veterans, the CD-RISC under its current form has been used with active duty and veteran populations in numerous studies (Gaddy et al., 2017; D. C. Johnson et al., 2011). The Connor Davidson Resilience Scale has been used to assess Air Force Basic Trainees' resilience, yet no research exists that involves specifically analyzing Air Force EOD combat veterans' resilience or how personality traits, resilience, and combat performance interact (Bezdjian et al., 2017).

Summary

Despite the deep history of trait theory and the recent explosion of the literature on performance criterion measurements, there is a dearth of research about personality traits, combat performance, and resilience. The myriad of studies focusing on trait theories of leadership and their effects on various outcomes within organizational settings coalesces to provide a foundation for understanding how personality impacts performance. These studies can serve as a springboard to launch other research that will strengthen the military force. Although studies exist

on the topic, the following question remains: Which personality traits are most predictive of combat performance and resilience among U.S. Air Force EOD Combat Veteran Team Leaders?

Chapter 3 – Methodology

This chapter contains details of the methods and resources used in this retroactive quantitative research survey study to examine the correlations between Air Force EOD Combat Veterans' personality traits, their combat performance, and post-combat resilience. Survey research is used in the social sciences to question a study sample and derive data about their knowledge, attitudes, and behaviors for quantitative analyses (Goodfellow, 2023). This type of quantitative data is complex and must be analyzed through multivariate statistical methods to be distilled into valuable, actionable information (Hair et al., 2019). In this dissertation, I examined quantitative data gained through surveys to understand the relationships between the independent and dependent variables for this study.

Research Questions and Hypotheses

In this dissertation, I determined the relationship between the personality traits of Air Force EOD Combat Veteran Team Leaders of Iraq and Afghanistan, their retroactively graded combat performance, and post-combat resilience. Although personality traits have been studied in correlation with EOD training performance, the results are closely held by the military and have not been released to the public. As such, in this study, the hypotheses for the research questions are grounded in the literature from other disciplines. I employed a survey research method to examine the correlations between personality traits, combat performance, and resilience. The two primary research questions that guided this dissertation are as follows:

Research Question 1

Research Question 1 was intended to identify which of the five-factor model personality traits among Air Force EOD Team Leader Combat Veterans of Iraq and Afghanistan was most predictive of combat performance as measured by the Combat/Deployment Performance Rating Scale (CDPRS). In this dissertation, positive correlations were predicted across all personality traits in alignment with extant literature from other career communities (Bech et al., 2021; Huijzer et al., 2022; Park et al., 2018; Reizer et al., 2023; Saxon et al., 2020; Yesil & Sozbilir,

2013). The literature also indicated a curvilinear relationship with the dimensions of Conscientiousness and Emotional Stability, given measurable benefits for specific amounts of neuroticism displayed among high-risk military communities (Apalkova et al., 2021; Farahani et al., 2019; N. Liu et al., 2022; Peters et al., 2020). However, no single personality trait was revealed as being most predictive of combat success in the literature. Thus, the following null hypothesis was formulated for Research Question 1:

> H_1: The five-factor model of personality traits as measured by the TAKE5-FC will not provide a singular statistically significant personality trait as most predictive of combat performance as measured by the CDPRS.

Research Question 2

Research Question 2 was intended to identify which of the five-factor model personality traits was most predictive of resilience as measured by the Connor-Davidson Resilience Scale (CD-RISC) among Air Force EOD Team Leader Combat Veterans of Iraq and Afghanistan. A positive relationship was predicted among all facets because research indicated mental health benefits for all five components of the five-factor model as well as increased functional longevity (L. Burgess et al., 2010; Chen et al., 2023; Chhabra et al., 2023; N. Liu et al., 2022; Meléndez et al., 2020; Straud et al., 2015; Van Der Meulen et al., 2020; Wang et al., 2023). However, no single personality trait was revealed as being most predictive of resilience in the literature. Thus, the following null hypothesis was formulated for Research Question 2:

> H_2: The five-factor model of personality traits as measured by the TAKE5-FC will not provide a singular statistically significant personality trait as most predictive of resilience as measured by the CD-RISC.

Study Variables

Independent Variables

The personality traits of Air Force EOD Team Leader Combat Veterans of Iraq and Afghanistan, as measured by the five-factor model of personality, served as the independent variables for this dissertation. In official military contexts, the

TAPAS is used to measure the personality traits of military members and potential recruits. Because the TAPAS is owned, administered, and protected by the military, the TAKE5 FC served as a forced-choice five-factor model surrogate for the TAPAS in this dissertation. Both the TAPAS and TAKE5 FC are grounded in the five-factor model and measure the same domains. Thus, the independent variables were the five personality domains measured by the TAKE5 FC (see Table 5). The TAKE5 FC boasts good internal consistency (Cronbach's $\alpha = .68–.79$) and suitable criterion validity with measures of career success (Cronbach, 1979; see Table 6). Each EOD Team Leader received a percentile ranking score against the sample population's z-score standard range within each personality domain and against an overall representation of the general population. Higher percentile scores indicate a higher prominence of that personality trait within each Team Leader Veteran. Permission was granted to use the TAKE5 FC for this dissertation (see Appendix C).

Table 5

TAPAS Domains and Facets as Compared to TAKE5 FC Domains

TAPAS Domains	TAPAS Facets	TAKE5 FC Domains
Openness to Experience	Tolerance	Openness to Experience
Conscientiousness	Achievement	Conscientiousness
	Non-Delinquency	
	Responsibility	
	Self-Control	
Extraversion	Dominance	Extraversion
	Attention Seeking	
	Sociability	
Agreeableness	Cooperation	Agreeableness
	Selflessness	
Emotional Stability	Adjustment	Emotional Stability
	Even Tempered	
	Optimism	
Other	Physical Conditioning	
	Situational Awareness	

Table 6

TAKE5 FC Criterion Validity

TAKE5 FC Domains	Criterion Validity
Openness to Experience	.17
Conscientiousness	.26
Extraversion	.24
Agreeableness	-.03
Emotional Stability	.25

Dependent Variables

Combat performance and resilience served as the dependent variables for this dissertation. The CDPRS was used to measure combat performance retroactively, and the CD-RISC was used to measure resilience.

CDPRS. The CDPRS was designed by Wasko et al. (2012) as part of a more extensive study to measure performance among Army soldiers during their initial enlistments. For job-specific and composite measurements in the study by Wasko et al., the CDPRS demonstrated good internal consistency (Cronbach's α = .90–.95) but did not show enough variance to examine the sample population suitably, resulting in poor incremental validity and few statistically significant correlations. However, in their project, Wasko et al. administered the CDPRS at a time in the research after poor performers were likely eliminated via service attrition. This dissertation targeted all Air Force EOD Veterans of Iraq and Afghanistan and included a range of high- and low-performing EOD veterans to show variance in their performance ratings. The dependent variables were the five CDPRS domains (see Table 7), measured by a 7-point Likert scale with combat-centric definitions to help guide respondents toward a consistent application of high and low performance. Permission was granted to use the CDPRS for this dissertation (see Appendix D).

Table 7

CDPRS Domains and Facets

CDPRS Domains	CDPRS Facets
Field/Combat Judgement	Thinks rationally under pressure. Makes sound on-the-spot field decisions. Applies correct rules to the situation. Immediately/correctly performs required warrior tasks.
Field Readiness	Keeps self, weapons, and equipment in combat-ready condition. Maintains positive control and accountability of weapons, equipment, tools, and munitions. Follows procedures for handling equipment and weapons safely.
Physical Endurance	Is capable of meeting the demands of physical or environmental challenges or stressful situations. Sustains performance as long as the situation requires.
Physical Courage	Overcomes fear of bodily harm. Takes necessary risks in spite of fears. Does not act recklessly or place self or others at unwarranted risk.
Awareness and Vigilance	Maintains sense of alertness to enemy and environmental threats. Is always aware of unusual or threatening persons or conditions. Remains focused and alert despite sleep deprivation, extended missions, and difficult environmental conditions.

CD-RISC. Resilience was measured by Connor and Davidson's (2003) Resilience Scale. This measurement is a well-validated and widely used instrument with 25 items for measuring resilience (Bezdjian et al., 2017). Connor and Davidson found that the CD-RISC boasted good internal consistency (Cronbach's α = .89), test-retest reliability (r = 0.87), and convergent validity with numerous other stress and resilience scales. The domains and facets are copyrighted and cannot be published in detail within this dissertation. However, the scale was administered and scored in accordance with Connor and Davidson's guidelines, and the participants received a publicly releasable composite score for resilience. Permission was granted to use the CD-RISC for this dissertation (see Appendix E).

Research Design

I employed a quantitative, nonexperimental correlational design to examine whether relationships existed between Air Force EOD Combat Veterans' personality traits, combat performance, and post-combat resilience. This study's primary research methodology was a survey research approach. Quantitative correlational designs allow researchers to identify relationships between variables and predict resulting patterns among sample populations (Creswell & Creswell, 2018). For this dissertation, I employed multiple linear regressions (MLRs), simple regressions, and curved estimations to draw comparisons between variables.

Population and Sample

The sample population for this dissertation included Air Force EOD veterans who served in enlisted Team Leader and Team Member positions during their deployments to Iraq and Afghanistan. EOD Team Leaders are Staff Sergeants, Technical Sergeants, and Master Sergeants who achieved their "7-Level" certification per the EOD Career Field Education and Training Plan 3E8X1 (2020). Air Force EOD Team Members are Senior Airmen and Staff Sergeants who achieved their "5-Level" certification per the EOD Career Field Education and Training Plan 3E8X1 (2020). In this dissertation, Iraq and Afghanistan veterans refer to Air Force EOD Operators who served in either theater long enough to be awarded the Iraqi Campaign, Afghanistan Campaign, or Global War on Terrorism Expeditionary Medals. Research Question 1 required both Team Member (CDPRS) and Team Leader (TAKE5 FC) responses to create dyads measuring personality traits and combat performance. Research Question 2 was only based on the Team Leaders' responses to measure personality traits (TAKE5 FC) and resilience (CD-RISC). Due to a lack of Team Member response rates, the sample for Research Question 1 (n = 71) was smaller than that for Research Question 2 (n = 81).

I invited Air Force EOD Combat Veterans to participate in this research project via email and social media engagement (see Appendix A). The *USAF EOD* Facebook Group and the researcher's personal Facebook page hosted the social media announcements. I also made announcements via LinkedIn and email distribution lists through the Air Force EOD Masterblaster Organization and the

United States Bomb Technicians Association. Team Member Veterans were directed to a Survey Monkey link containing the CDPRS and a request for the contact information of the Team Leader they were retroactively evaluating. In cases where a Team Member initiated the dyad and provided contact information, Team Leaders received their TAKE5 FC and CD-RISC access via direct message or email. Team Leader Veterans were directed to a Survey Monkey link containing the CD-RISC and a request for their personal contact information and their Team Member's contact information. In cases where the Team Leader initiated the dyad, a direct access link to HR Diagnostic's TAKE5 FC questionnaire was emailed to the Team Leaders, and a link to the CDPRS was directly messaged or emailed to their Team Members.

Researcher's Orientation to the Dissertation

A limiting factor of this dissertation is my status as an established professional and strategic leader within the field. My insights into this dissertation are enriched by my access to technical data, conversations, privileged knowledge, and gray data that, due to security considerations, cannot be publicly released or cited. Although the reference material for the nonsensitive gray data cannot be cited, where included, I deemed them necessary for accurate and comprehensive portrayals of the Air Force EOD talent management context. The inclusion of these types of data has been kept to a strict minimum. Moreover, this dissertation underwent a Department of Defense prepublication security review and Air Force Subject Matter Expert review before public release.

Data Collection and Privacy Protection

This dissertation's data collection and management platform was version 29.0.2.0 of IBM's Statistical Package for the Social Sciences (SPSS) software. As the CD-RISC, CDPRS, and TAKE5 FC results were collected, I transcribed the data manually into SPSS. Each participant agreed to an informed consent form before participating in the surveys (see Appendix B). After the end of the data collection period, I replaced all names with numbers to protect the respondents' identities. All data were stored on the researcher's password-protected personal laptop and hard drive.

Power Analysis

I conducted an a priori power analysis to establish the target number for this dissertation's sample population. Because the study by Wasko et al. (2012) did not provide an expected level of suitable variance in the CDPRS, for this dissertation, I used the standard deviation (SD = 1.08 – 1.70) found within their In-Unit Performance Rating Scale (PRS) as a previously established baseline for power analyses. I used a probability level with 95% confidence (p = <.05) to avoid Type I errors and a power ($1 - \beta$) index of .80 to avoid Type II errors. This power analysis resulted in an optimal sample size of between 43 and 92 Team Leaders for a large effect size. An additional 43 to 92 Team Members were required for retroactive scoring on the CDPRS to create the dyads required for Research Question 1.

Data Cleaning

To ensure dependable results, the data underwent cleaning before analysis. The TAKE5 FC is a commercially administered personality test. Surveys with incomplete responses were not logged as completed surveys and were excluded from the results. Thus, data cleaning was not necessary for the TAKE5 FC results. The CD-RISC and CDPRS required all questions to be complete for proper analyses. Neither survey had incomplete responses, so no surveys were deleted due to incompletion. I deleted 27 dyads due to a lack of Team Leader TAKE5 FC and CD-RISC completion, three dyads due to a lack of Team Leader TAKE5 FC completion, and four dyads due to a lack of Team Member CDPRS completion. Five Team Leaders failed to identify Team Members for CDPRS completion and did not complete the CD-RISC. Three Team Leaders did not provide contact information for themselves or their Team Members. One Team Leader was not deployed to Iraq or Afghanistan. One Team Member completed a CDPRS for a Team Leader who was deceased. All the above data were deleted and not used for this dissertation.

Data Analysis

This dissertation involved an analysis of data using descriptive and predictive statistical methods within IBM's SPSS. To answer Research Question 1, I conducted a series of MLRs, simple regressions, and curved estimations to

determine how each of the five personality traits in the TAKE5 FC contributed to the five factors of combat performance via the CDPRS. To answer Research Question 2, I conducted more MLRs, simple regressions, and curved estimations to determine how the five personality traits measured by the TAKE5 FC contributed to resilience, as measured by the CD-RISC.

Summary

Chapter 3 included the essential elements of this research's design and methodology. Data collection initially occurred using HR Diagnostics' website and two Survey Monkey questionnaires. A priori power analysis indicated an optimal sample size of 43 to 92 Team Leaders for a large effect size. Two research questions guided two hypotheses, which were tested by conducting MLRs, simple regressions, and curved estimations. Chapter 4 is a report of the formal findings of this dissertation.

Chapter 4 – Results or Findings

The aim of this study was to evaluate the relationship between the personality traits of Air Force Explosive Ordnance Disposal (EOD) Team Leader Veterans of Iraq and Afghanistan and their combat performance and resilience. The research approach for this dissertation was a quantitative, retrospective, nonexperimental, correlational design. Two research questions aligned to the study purpose and guided this study. I selected the study's sample of participants through a nonprobability, purposive sampling technique from an Air Force EOD Veteran population with combat experience in Iraq or Afghanistan. The participants did not receive compensation, and the recruiting process included email announcements through EOD nonprofit organizations and social media announcements via Facebook and LinkedIn.

I used descriptive and inferential statistical techniques to analyze the study's data. The initial step was analyzing the data using descriptive statistics. The second step was performing multiple linear regressions (MLRs) to determine how each of the five personality traits measured by the TAKE5 FC contributed to the five factors of combat performance via the Combat/Deployment Performance Rating Scale (CDPRS) and resilience as measured by the Connor-Davidson Resilience Scale (CD-RISC). The third step was conducting simple regressions and curved estimations to determine whether curvilinear relationships existed between the predictor and outcome variables. This chapter is dedicated to the formal reporting of the findings achieved in this study.

Descriptive Statistics and Demographic Data

The participants provided numerous demographic data points during their surveys. The U.S. military is a White male-dominated profession. Like the broader military community, the Air Force EOD program is also White male-dominated. As expected, the Air Force EOD veteran community that responded to this study was no exception. However, at some points, marginalized communities were represented in this dissertation beyond their representative numbers, as reflected in

the current active-duty Air Force EOD community. At other points, some communities were excluded because they did not participate in the survey.

Gender and Ethnicity

I evaluated the study's demographic data using descriptive statistical techniques. Frequencies (*n*) and percentages (%) represented the specific descriptive statistics and were used to analyze the study's demographic information. Table 8 contains a summary of findings for the descriptive statistical analysis of the demographic information associated with the gender and ethnicity of the Team Leaders who participated in this study. Table 9 contains a summary of findings for Team Members' gender and ethnicity.

Table 8

Descriptive Statistics Summary Table: Demographic Variables of TL Gender and Ethnicity

Demographic Variable	*n = 81*	*%*	Cumulative *%*
Gender (TL)			
Male	76	93.83	93.83
Female	5	6.17	100.00
Missing	0	0.00	100.00
Ethnicity (TL)			
White	67	82.72	82.72
Hispanic or Latino	6	7.41	90.12
Asian or Asian American	1	1.23	91.36
Another Race	3	3.70	95.06
Prefer not to answer	4	4.94	100.00
Missing	0	0.00	100.00

Table 9

Descriptive Statistics Summary Table: Demographic Variables of TM Gender and Ethnicity

Demographic Variable	*n = 81*	*%*	Cumulative *%*
Gender (TM)			
Male	64	79.01	79.01
Female	7	8.64	87.65
Missing	10	12.35	100.00
Ethnicity (TM)			
White	54	66.67	66.67
Black or African American	3	3.70	70.37
Hispanic or Latino	7	8.64	79.01
Asian or Asian American	2	2.47	81.48
American Indian or Alaska Native	1	1.23	82.72
Another Race	2	2.47	85.19
Prefer not to answer	2	2.47	87.65
Missing	10	12.35	100.00

Although females currently represent around three percent of the Air Force EOD community, they comprised six percent of the Team Leader population (see Table 8) and nearly nine percent of the Team Member population (see Table 9) in this study. Similarly, non-Whites represent just 11% of the current Air Force EOD force, but in this dissertation, the Team Leader population was more than 17% non-White. However, certain communities, such as Black/African American and American Indians, were not represented among the Team Leader population due to a lack of survey responses.

Participants' Age

In this dissertation, I evaluated the participants' ages, which were continuous in nature, using descriptive statistical techniques. The specific descriptive statistical techniques used included frequencies (*n*), measures of central tendency (mean scores), variability (minimum/maximum and standard deviations), standard errors of the mean (SE_M), and data normality (skew and kurtosis). Table 10 contains a summary of the findings for the descriptive statistical analysis of the participants' ages.

Table 10

Descriptive Statistics Summary Table: Study Participant Age

Variable	*M*	*SD*	*n*	SE_M	Min	Max	Skew	Kurtosis
Participant Age	45.67	5.22	80	0.58	35.00	62.00	0.53	0.43

Country of Combat Deployment

This dissertation targeted Air Force Combat Veterans of Iraq and Afghanistan. Of the veterans who responded, nearly 63% of the participants' responses were based on their experiences in Afghanistan whereas 37% were based on their experiences in Iraq. Table 11 contains a summary of the findings for the descriptive statistical analysis of the study participants' country of deployment.

Table 11

Descriptive Statistics for Deployment Location

	N = 81	%
Afghanistan	51	62.96
Iraq	30	37.04

Findings: Research Questions

Two research questions guided this study. I analyzed the data against two data sets of the TAKE5 FC. The first data set was normed solely to the sample population of Air Force EOD Team Leader Combat Veterans of Iraq and Afghanistan who responded to this study. Thus, the *z* scores and percentile rankings in this data set were based on Air Force EOD Team Leader Veterans of Iraq and Afghanistan. The second data set was normed to a broader population encompassing more than 500,000 historical responses to the TAKE5 FC representative of the general population across various military and civilian career fields. The *z* scores and percentile rankings in this data set highlighted where the personality traits of Air Force EOD Team Leader Combat Veterans of Iraq and Afghanistan ranked among the general population. The following subsection contains the findings for Research Question 1 and Research Question 2.

Research Question 1

Research Question 1 was formulated to identify which of the five-factor model personality traits among Air Force EOD Combat Veteran Team Leaders was most predictive of combat performance as measured using the CDPRS. I used

MLRs to evaluate the predictive abilities of the TAKE5 FC dimensions for each domain of participants' CDPRS scores. Hair et al. (2017) argued that sequential regression methods, such as stepwise estimations, are generally less effective for theoretical analyses and usually require larger samples. I used the CDPRS to analyze broad categories of combat performance rather than detailed EOD-specific variables. As such, I analyzed all independent variables simultaneously in these MLRs. I addressed the assumptions of the MLRs using statistical means (independence or error and multicollinearity) and visual inspection of scatter plots (linearity, homoscedasticity, normality of residuals, and influential outliers). All models showed a Durbin-Watson score of between 2.00 and 2.50, and all variance inflation factors were below 5.00 for this research question. However, tolerance values showed violations of multicollinearity assumptions in each model. Because the models failed to produce statistically significant results, multicollinearity violations did not cause inflated values. Thus, corrections for multicollinearity were not made, and the raw data are provided below. Violations of linearity are shown for the most predictive relationships on the scatter plots in Appendix F.

Multiple Linear Regressions (Normed to Sample). The TAKE5 FC personality assessment was normed to the Air Force EOD Veteran Team Leaders' sample population and to a data set representative of the general population. MLRs failed to show statistically significant associations between the TAKE5 FC personality traits (normed to the sample) and the CDPRS performance domains. The following section contains a discussion of the findings of the data set normed to the study's sample population of Air Force EOD Combat Veteran Team Leaders of Iraq and Afghanistan.

MLR for Field and Combat Judgment. The predictive model within the TAKE5 FC data set normed to the sample population was not statistically significant (F (5,65) = 0.35, p = .88, R^2 = .03), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Field and Combat Judgment. Table 12 contains a summary of the findings and regressions model for the

evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the sample population for Field and Combat Judgment CDPRS scores.

Table 12

Predictive Model Summary: TAKE5 FC (Normed to Sample) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Field and Combat Judgment CDPRS Scores

Model	*B*	*SE*	95.00% CI	β	*T*	*P*
(Intercept)	5.86	0.16	[5.55, 6.18]	0.00	37.21	< .001
Openness to Experience	0.18	0.31	[-0.43, 0.79]	0.14	0.59	.56
Conscientiousness	0.11	0.21	[-0.31, 0.53]	0.09	0.52	.60
Extraversion	0.05	0.39	[-0.73, 0.83]	0.04	0.13	.90
Agreeableness	0.13	0.21	[-0.29, 0.55]	0.11	0.61	.54
Emotional Stability	-0.18	0.52	[-1.23, 0.86]	-0.15	-0.35	.73

MLR for Field Readiness. The predictive model within the TAKE5 FC data set normed to the sample population was not statistically significant (F (5,65) = 0.69, p = .63, R^2 = .05), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Field Readiness. Table 13 contains a summary of the findings and regressions model for the evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the sample population for Field Readiness CDPRS scores.

Table 13

Predictive Model Summary: TAKE5 FC (Normed to Sample) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Field Readiness CDPRS Scores

Model	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	6.21	0.13	[5.55, 6.18]	0.00	48.69	< .001
Openness to Experience	0.09	0.25	[-0.41, 0.58]	0.08	0.34	.73
Conscientiousness	0.05	0.17	[-0.30, 0.39]	0.05	0.27	.79
Extraversion	0.04	0.32	[-0.59, 0.67]	0.04	0.12	.90
Agreeableness	0.00	0.17	[-0.34, 0.34]	0.00	0.02	.98
Emotional Stability	0.10	0.42	[-0.75, 0.94]	0.10	0.23	.82

MLR for Physical Endurance. The predictive model within the TAKE5 FC data set normed to the sample population was not statistically significant (F (5,65) = 0.28, p = .92, R^2 = .02), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Physical Endurance. Table 14 contains a summary of the findings and regressions model for the evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the sample population for Physical Endurance CDPRS scores.

Table 14

Predictive Model Summary: TAKE5 FC (Normed to Sample) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Physical Endurance CDPRS Scores

Model	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	5.83	0.18	[5.55, 6.18]	0.00	32.67	< .001
Openness to Experience	0.35	0.35	[-0.35, 1.04]	0.24	1.00	.32
Conscientiousness	0.12	0.24	[-0.36, 0.60]	0.09	0.51	.61
Extraversion	0.08	0.55	[-0.80, 0.96]	0.06	0.18	.86
Agreeableness	0.02	0.24	[-0.45, 0.50]	0.02	0.10	.92
Emotional Stability	-0.34	0.59	[-1.52, 0.84]	-0.25	-0.57	.57

MLR for Physical Courage. The predictive model within the TAKE5 FC data set normed to the sample population was not statistically significant (F (5,65) = 0.65, p = .67, R^2 = .05), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Physical Courage. Table 15 contains a summary of the findings and regressions model for the evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the sample population for Physical Courage CDPRS scores.

Table 15

Predictive Model Summary: TAKE5 FC (Normed to Sample) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Physical Courage CDPRS Scores

Model	*B*	*SE*	95.00% CI	B	*t*	*p*
(Intercept)	6.21	0.15	[5.55, 6.18]	0.00	42.52	< .001
Openness to Experience	0.26	0.28	[-0.31, 0.82]	0.26	0.90	.37
Conscientiousness	0.17	0.20	[-0.27, 0.51]	0.10	0.60	.55
Extraversion	0.20	0.36	[-0.52, 0.92]	0.17	0.55	.58
Agreeableness	0.20	0.20	[-0.45, 0.50]	0.18	1.02	.31
Emotional Stability	-0.48	0.48	[-1.45, 0.49]	-0.43	-0.99	.33

MLR for Awareness and Vigilance. The predictive model within the TAKE5 FC data set normed to the sample population was not statistically significant (F (5,65) = 0.01, p = .99, R^2 = .01), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Awareness and Vigilance. Table 16 contains a summary of the findings and regressions model for the evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the sample population for Awareness and Vigilance CDPRS scores.

Table 16

Predictive Model Summary: TAKE5 FC (Normed to Sample) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Awareness and Vigilance CDPRS Scores

Model	*B*	*SE*	95.00% CI	B	*t*	*p*
(Intercept)	6.18	0.15	[5.89, 6.48]	0.00	41.64	< .001
Openness to Experience	0.06	0.29	[-0.52, 0.64]	0.05	0.21	.84
Conscientiousness	0.09	0.20	[-0.31, 0.49]	0.08	0.44	.66
Extraversion	0.16	0.37	[-0.57, 0.90]	0.14	0.45	.66
Agreeableness	0.07	0.20	[-0.33, 0.46]	0.06	0.33	.74
Emotional Stability	-0.19	0.49	[-1.17, 0.80]	-0.17	-0.38	.70

MLR for Summary CDPRS Score. The predictive model within the TAKE5 FC data set normed to the sample population was not statistically significant (F (5,65) = 0.35, p = .88, R^2 = .03), indicating that the TAKE5 FC

dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' summary CDPRS scores. Table 17 contains a summary of the findings and regressions model for the evaluation of the confluent and individual predictive abilities of TAKE5 FC dimensions normed to the sample population for the CDPRS scores.

Table 17

Predictive Model Summary: TAKE5 FC (Normed to Sample) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability (Generalized to Sample) Predicting Summary CDPRS Score

Model	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	6.01	0.13	[5.80, 6.32]	0.00	46.09	< .001
Openness to Experience	0.19	0.26	[-0.33, 0.69]	0.18	0.72	.47
Conscientiousness	0.10	0.18	[-0.26, 0.45]	0.09	0.56	.59
Extraversion	0.11	0.33	[-0.54, 0.76]	0.10	0.33	.77
Agreeableness	0.08	0.18	[-0.27, 0.44]	0.09	0.48	.66
Emotional Stability	-0.22	0.44	[-1.09, 0.65]	-0.22	-0.50	.62

Multiple Linear Regression (Normed to General Population). The TAKE5 FC personality assessment was normed to the Air Force EOD Veteran Team Leaders' sample population and to a data set representative of the general population. MLRs did not show statistically significant associations between the TAKE5 FC personality traits normed to the general population and the CDPRS performance domains. The following subsection contains a discussion of the findings of the data set that was normed to the general population.

MLR for Field and Combat Judgment. The predictive model within the TAKE5 FC data set normed to the general population was not statistically significant (F (5,65) = 0.38, p = .86, R^2 = .03), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Field and Combat Judgment. Table 18 contains a summary of the findings and regressions model for the

evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the general population for Field and Combat Judgment CDPRS scores.

Table 18

Predictive Model Summary: TAKE5 FC (Normed to General Population) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Field and Combat Judgment CDPRS Scores

Model	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	6.15	0.28	[5.57, 6.67]	0.00	22.21	< .001
Openness to Experience	0.15	0.27	[-0.39, 0.68]	0.13	0.54	.59
Conscientiousness	0.03	0.08	[-0.13, 0.20]	0.07	0.40	.69
Extraversion	0.01	0.42	[-0.83, 0.84]	0.01	0.02	.99
Agreeableness	0.11	0.17	[-0.24, 0.46]	0.11	0.64	.52
Emotional Stability	-0.09	0.47	[-1.02, 0.85]	-0.08	-0.18	.86

MLR for Field Readiness. The predictive model within the TAKE5 FC data set normed to the general population was not statistically significant (F (5,65) = 0.53, p = .75, R^2 = .04), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Field Readiness. Table 19 contains a summary of the findings and regressions model for the evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the general population for Field Readiness CDPRS scores.

Table 19

Predictive Model Summary: TAKE5 FC (Normed to General Population) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Field Readiness CDPRS Scores

Model	*B*	*SE*	95.00% CI	β	*T*	*p*
(Intercept)	6.50	0.22	[6.05, 6.95]	0.00	28.98	< .001
Openness to Experience	0.04	0.22	[-0.40, 0.48]	0.04	0.18	.86
Conscientiousness	0.01	0.07	[-0.13, 0.14]	0.01	0.08	.94
Extraversion	0.01	0.34	[-0.67, 0.69]	0.01	0.03	.98
Agreeableness	0.00	0.14	[-0.28, 0.28]	0.00	0.01	1.00
Emotional Stability	0.13	0.38	[-0.63, 0.89]	0.15	0.34	.74

MLR for Physical Endurance. The predictive model within the TAKE5 FC data set normed to the general population was not statistically significant (F (5,65) = 0.23, p = .95, R^2 = .02), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Physical Endurance. Table 20 contains a summary of the findings and regressions model for the evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the general population for Physical Endurance CDPRS scores.

Table 20

Predictive Model Summary: TAKE5 FC (Normed to General Population) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Physical Endurance CDPRS Scores

Model	*B*	*SE*	95.00% CI	β	*T*	*p*
(Intercept)	5.95	0.31	[5.32, 6.57]	0.00	19.00	< .001
Openness to Experience	0.29	0.31	[-0.32, 0.90]	0.22	0.95	.35
Conscientiousness	0.04	0.10	[-0.15, 0.23]	0.07	0.40	.69
Extraversion	0.11	0.47	[-0.84, 1.05]	0.07	0.23	.82
Agreeableness	0.01	0.20	[-0.39, 0.40]	0.01	0.03	.98
Emotional Stability	-0.31	0.53	[-1.37, 0.76]	-0.26	-0.58	.57

MLR for Physical Courage. The predictive model within the TAKE5 FC data set normed to the general population was not statistically significant (F (5,65) = 0.64, p = .67, R^2 = .05), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Physical Courage. Table 21 contains a summary of the findings and regressions model for the evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the general population for Physical Courage CDPRS scores.

Table 21

Predictive Model Summary: TAKE5 FC (Normed to General Population) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Physical Courage CDPRS Scores

Model	*B*	*SE*	95.00% CI	β	*T*	*p*
(Intercept)	6.38	0.26	[5.87, 6.89]	0.00	24.97	< .001
Openness to Experience	0.21	0.25	[-0.28, 0.71]	0.19	0.85	.40
Conscientiousness	0.05	0.08	[-0.11, 0.20]	0.10	0.58	.57
Extraversion	0.20	0.37	[-0.57, 0.97]	0.17	0.51	.61
Agreeableness	0.17	0.16	[-0.15, 0.49]	0.17	1.05	.30
Emotional Stability	-0.38	0.44	[-1.25, 0.49]	-0.39	-0.88	.38

MLR for Awareness and Vigilance. The predictive model within the TAKE5 FC data set normed to the general population was not statistically significant (F (5,65) = 0.11, p = .99, R^2 = .01), indicating that the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' CDPRS scores for Awareness and Vigilance. Table 22 contains a summary of the findings and regressions model for the evaluation of the predictive abilities of the TAKE5 FC dimensions normed to the general population for Awareness and Vigilance CDPRS scores.

Table 22

Predictive Model Summary: TAKE5 FC (Normed to General Population) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Awareness and Vigilance CDPRS Scores

Model	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	6.34	0.26	[5.82, 6.86]	0.00	24.43	< .001
Openness to Experience	0.05	0.25	[-0.46, 0.56]	0.04	0.19	.85
Conscientiousness	0.04	0.08	[-0.12, 0.19]	0.08	0.45	.65
Extraversion	0.17	0.39	[-0.62, 0.95]	0.14	0.42	.68
Agreeableness	0.06	0.16	[-0.27, 0.39]	0.06	0.35	.73
Emotional Stability	-0.15	0.44	[-1.04, 0.73]	-0.16	-0.35	.73

MLR for Summary CDPRS. The predictive model within the TAKE5 FC data set normed to the general population was not statistically significant (F (5,65) = 0.30, p = .91, R^2 = .02), indicating that the TAKE5 FC dimensions of Openness to

Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability did not explain a significant proportion of the variation in the participants' Summary CDPRS score. Table 23 contains a summary of the findings and regressions model for the evaluation of the confluent and individual predictive abilities of TAKE5 FC dimensions normed to the general population for the Summary CDPRS score.

Table 23

Predictive Model Summary: TAKE5 FC (Normed to General Population) Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability Predicting Summary CDPRS Score

Model	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	6.26	0.23	[5.80, 6.72]	0.00	27.16	< .001
Openness to Experience	0.15	0.23	[-0.30, 0.60]	0.15	0.65	.52
Conscientiousness	0.03	0.07	[-0.11, 0.17]	0.08	0.45	.65
Extraversion	0.10	0.35	[-0.60, 0.79]	0.09	0.28	.78
Agreeableness	0.07	0.15	[-0.22, 0.36]	0.08	0.47	.64
Emotional Stability	-0.16	0.39	[-0.94, 0.62]	-0.18	-0.41	.69

Curved Estimation (Normed to Sample). I conducted follow-up analyses using individual TAKE5 FC dimensions normed to the sample population in predicting CDPRS scores in the wake of the nonstatistically significant modeling observed in Research Question 1. The follow-up analyses included simple linear regressions and curved estimation analyses for each predictive pair. I conducted curved estimation analyses to determine whether individual predictive relationships were curvilinear rather than linear. As a result, two dimensions of the TAKE5 FC normed to the sample population, Extraversion, and Emotional Stability, were statistically significant in predicting some CDPRS domains. The following subsection contains a report of the follow-up analyses for the curved estimation of TAKE5 FC dimensions to predict CDPRS scores.

TAKE5 FC Dimension: Extraversion. The assumption of linearity for the predictive relationship between the TAKE5 FC dimension of Extraversion and the dependent variables of CDPRS domain scores was violated, based on a visual inspection of the scatter plot associated with the analysis (see Appendix F). As a

result, I conducted a curved estimation analysis to determine whether the curvilinear relationships between the TAKE5 FC dimension of Extraversion and some dependent variables of CDPRS domain scores were statistically significant.

The predictive model for the CDPRS domain of Field and Combat Judgment in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the sample) was not statistically significant (F (2, 68) = 2.42; p = .10, R^2 = .07) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 24 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the sample) for Field and Combat Judgment CDPRS scores.

Table 24

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to Sample) Predicting CDPRS Field and Combat Judgement Scores

Equation	Intercept	*β*	*F*	*Df*	R^2	*p*
Linear	5.87	0.07	0.23	1,69	.00	.63
Quadratic	6.11	0.18	2.42	2,68	.07	.10

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Field Readiness in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the sample) was statistically significant (F (2, 68) = 7.62; p = .001, R^2 = .18) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 25 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the sample) for Field Readiness CDPRS scores.

Table 25

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normalized to Sample) Predicting CDPRS Field Readiness Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.21	0.20	2.75	1,69	.04	.10
Quadratic	6.51	0.33	7.62	2,68	.18	.001**

Note. $^{**}p \leq .01$.

The predictive model for the CDPRS domain of Physical Endurance in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the sample) was statistically significant (F (2, 68) = 4.31; p = .02, R^2 = .11) when the

curvilinear element of the predictive relationship was accounted for in the analysis. Table 26 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the sample) for Physical Endurance CDPRS scores.

Table 26

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to Sample) Predicting CDPRS Physical Endurance Scores

Equation	Intercept	*B*	*F*	*df*	R^2	*P*
Linear	5.84	0.03	0.04	1,69	.00	.84
Quadratic	6.21	0.19	4.31	2,68	.11	.02**

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Physical Courage in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the sample) was statistically significant (F (2, 68) = 3.30; p = .04, R^2 = .09) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 27 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the sample) for Physical Courage CDPRS scores.

Table 27

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to Sample) Predicting CDPRS Physical Courage Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.21	0.02	0.01	1,69	.00	.91
Quadratic	6.48	0.13	3.30	2,68	.09	.04**

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Awareness and Vigilance in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the sample) was not statistically significant (F (2, 68) = 2.31; p = .11, R^2 = .06) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 28 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the sample) for Awareness and Vigilance CDPRS scores.

Table 28

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to Sample) Predicting CDPRS Awareness and Vigilance Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.19	0.07	0.29	1,69	.00	.59
Quadratic	6.41	0.17	2.31	2,68	.06	.11

Note. $^{**}p \leq .05$.

TAKE5 FC Dimension: Emotional Stability. The assumption of linearity for the predictive relationship between the TAKE5 FC dimension of Emotional Stability and the dependent variables of CDPRS domain scores was violated, based on a visual inspection of the scatter plot associated with the analysis (see Appendix F). As a result, I conducted a curved estimation analysis to determine whether the curvilinear relationships between the TAKE5 FC dimension of Emotional Stability and the dependent variables of CDPRS domain scores were statistically significant.

The predictive model for the CDPRS domain of Field and Combat Judgment in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the sample) was not statistically significant (F (2, 68) = 2.84; p = .07, R^2 = .08) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 29 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the sample) for Field and Combat Judgment CDPRS scores.

Table 29

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to Sample) Predicting CDPRS Field and Combat Judgment Scores

Equation	Intercept	*B*	*F*	*df*	R^2	*p*
Linear	5.87	0.10	0.49	1,69	.01	.49
Quadratic	6.13	0.10	2.84	2,68	.08	.07

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Field Readiness in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the sample) was statistically significant (F (2, 68) = 4.21; p = .02, R^2 = .11) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 30 contains a summary of the findings for linear and curved

estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the sample) for Field Readiness CDPRS scores.

Table 30

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to Sample) Predicting CDPRS Field Readiness Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.21	0.22	3.48	1,69	.05	.07
Quadratic	6.41	0.22	4.21	2,68	.11	.02**

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Physical Endurance in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the sample) was not statistically significant (F (2, 68) = 2.10; p = .16, R^2 = .06) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 31 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the sample) for Physical Endurance CDPRS scores.

Table 31

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to Sample) Predicting CDPRS Physical Endurance Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	5.84	0.05	0.10	1,69	.00	.75
Quadratic	6.10	0.05	2.07	2,68	.06	.14

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Physical Courage in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the sample) was statistically significant (F (2, 68) = 3.86; p = .03, R^2 = .10) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 32 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the sample) for Physical Courage CDPRS scores.

Table 32

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to Sample) Predicting CDPRS Physical Courage Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.21	0.02	0.02	1,69	.00	.88
Quadratic	6.50	0.02	3.86	2,68	.10	.03**

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Awareness and Vigilance in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the sample) was not statistically significant (F (2, 68) = 1.99; p = .15, R^2 = .05) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 33 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the sample) for Awareness and Vigilance CDPRS scores.

Table 33

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to Sample) Predicting CDPRS Awareness and Vigilance Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.20	0.07	0.24	1,69	.00	.63
Quadratic	6.40	0.07	1.99	2,68	.05	.15

Note. $^{**}p \leq .05$.

Curved Estimation (Normed to General Population). I conducted follow-up analyses using individual TAKE5 FC dimensions normed to the general population to predict CDPRS scores in the wake of the non-statistically significant modeling observed in Research Question 1. The follow-up analyses included simple linear regressions and curved estimation analyses for each predictive pair. I conducted curved estimation analyses to determine whether individual predictive relationships were curvilinear rather than linear. Like in the data set normed to the sample population, two dimensions of the TAKE5 FC normed to the general population, Extraversion and Emotional Stability, were statistically significant in predicting some domains of CDPRS scores. The following subsection contains a report of the follow-up analyses for the curved estimations of TAKE5 FC dimensions in predicting CDPRS scores.

TAKE5 FC Dimension: Extraversion. The assumption of linearity for the predictive relationship between the TAKE5 FC dimension of Extraversion and the dependent variables of CDPRS domain scores was violated, based on a visual inspection of the scatter plot associated with the analysis (see Appendix F). As a result, I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Extraversion and some dependent variables of CDPRS domain scores were statistically significant.

The predictive model for the CDPRS domain of Field and Combat Judgment in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the general population) was not statistically significant (F (2, 68) = 2.59; p = .08, R^2 = .07) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 34 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the general population) for Field and Combat Judgment CDPRS scores.

Table 34

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to General Population) Predicting CDPRS Field and Combat Judgment Scores

Equation	Intercept	*B*	*F*	*df*	R^2	*p*
Linear	5.96	0.08	0.24	1,69	.00	.62
Quadratic	5.96	-0.45	2.56	2,68	.07	.08

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Field Readiness in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the general population) was statistically significant (F (2, 68) = 6.92; p = .002, R^2 = .17) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 35 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the general population) for Field Readiness CDPRS scores.

Table 35

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to General Population) Predicting CDPRS Field Readiness Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.44	0.18	2.20	1,69	.03	.14
Quadratic	6.44	-0.43	6.92	2,68	.17	.002**

Note. $^{**}p \leq .01$.

The predictive model for the CDPRS domain of Physical Endurance in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the general population) was statistically significant (F (2, 68) = 4.18; p = .02, R^2 = .11) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 36 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the general population) for Physical Endurance CDPRS scores.

Table 36

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to General Population) Predicting CDPRS Physical Endurance Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	5.86	0.01	0.01	1,69	.00	.94
Quadratic	5.87	-0.74	4.18	2,68	.11	.02**

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Physical Courage in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the general population) was statistically significant (F (2, 68) = 3.30; p = .04, R^2 = .09) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 37 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the general population) for Physical Courage CDPRS scores.

Table 37

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to General Population) Predicting CDPRS Physical Courage Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.23	0.02	0.01	1,69	.00	.91
Quadratic	6.23	-0.54	3.30	2,68	.09	.04**

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Awareness and Vigilance in the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the general population) was not statistically significant (F (2, 68) = 2.35; p = .10, R^2 = .07) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 38 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the general population) for Awareness and Vigilance CDPRS scores.

Table 38

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to General Population) Predicting CDPRS Awareness and Vigilance Scores

Equation	Intercept	*B*	*F*	*df*	R^2	*p*
Linear	6.29	0.08	0.30	1,69	.00	.59
Quadratic	6.29	-0.38	2.35	2,68	.07	.10

Note. $^{**}p \leq .05$.

TAKE5 FC Dimension: Emotional Stability. The assumption of linearity for the predictive relationship between the TAKE5 FC dimension of Emotional Stability and the dependent variables of CDPRS domain scores was violated, based on a visual inspection of the scatter plot associated with the analysis (see Appendix F). As a result, I conducted a curved estimation analysis to determine whether the curvilinear relationships between the TAKE5 FC dimension of Emotional Stability and the dependent variables of CDPRS domain scores were statistically significant.

The predictive model for the CDPRS domain of Field and Combat Judgment in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the general population) was statistically significant (F (2, 68) = 4.74; p = .01, R^2 = .12) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 39 contains a summary of the findings for

linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the general population) for Field and Combat Judgment CDPRS scores.

Table 39

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to General Population) Predicting CDPRS Field and Combat Judgment Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.02	0.09	0.55	1,69	.01	.46
Quadratic	5.83	-0.62	4.74	2,68	.12	.01**

Note. $^{**}p \leq .01$.

The predictive model for the CDPRS domain of Field Readiness in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the general population) was statistically significant (F (2, 68) = 5.61; p = .01, R^2 = .14) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 40 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the general population) for Field Readiness CDPRS scores.

Table 40

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to General Population) Predicting CDPRS Field Readiness Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.49	0.17	2.78	1,69	.04	.10
Quadratic	6.35	-0.39	5.61	2,68	.14	.01**

Note. $^{**}p \leq .01$.

The predictive model for the CDPRS domain of Physical Endurance in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the general population) was statistically significant (F (2, 68) = 3.41; p = .04, R^2 = .09) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 41 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the general population) for Physical Endurance CDPRS scores.

Table 41

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to General Population) Predicting CDPRS Physical Endurance Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	5.87	0.02	0.02	1,69	.00	.90
Quadratic	5.67	-0.70	3.41	2,68	.09	.04**

Note. $^{**}p \leq .05$.

The predictive model for the CDPRS domain of Physical Courage in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the general population) was statistically significant (F (2, 68) = 5.14; p = .01, R^2 = .13) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 42 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the general population) for Physical Courage CDPRS scores.

Table 42

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to General Population) Predicting CDPRS Physical Courage Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.24	0.02	0.02	1,69	.00	.88
Quadratic	6.10	-0.70	5.14	2,68	.13	.01**

Note. $^{**}p \leq .01$.

The predictive model for the CDPRS domain of Awareness and Vigilance in the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the general population) was not statistically significant (F (2, 68) = 2.67; p = .08, R^2 = .07) when the curvilinear element of the predictive relationship was accounted for in the analysis. Table 43 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the general population) for Awareness and Vigilance CDPRS scores.

Table 43

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to General Population) Predicting CDPRS Awareness and Vigilance Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	6.29	0.06	0.26	1,69	.00	.61
Quadratic	6.16	-0.46	2.67	2,68	.07	.08

**$p \leq .05$

Research Question 2

Research Question 2 was posed to identify which of the five-factor model personality traits was most predictive of Team Leaders' resilience as measured using the CD-RISC. I used MLRs to evaluate the predictive abilities of the TAKE5 FC dimensions for the perceptions of resilience as measured using the CD-RISC. The assumptions of MLRs were addressed through statistical means (independence or error and multicollinearity) and visual inspection of scatter plots (linearity, homoscedasticity, normality of residuals, and influential outliers). Both models showed a Durbin-Watson score of between 2.00 and 2.50. Both models' tolerance values and variance inflation factors violated multicollinearity assumptions. However, because the models failed to produce statistically significant results, multicollinearity violations did not cause inflated values. Thus, corrections for multicollinearity were not made, and the raw data are provided in the following subsection. Violations of linearity are shown for the most predictive relationships on scatter plots in Appendix F.

Multiple Linear Regression (Normed to Sample). The uncorrected predictive model was statistically significant, F (5,66) = 4.04, p = .003, R^2 = .23, indicating that 23.4% of the variance in perception of resilience (CD-RISC) can be explained by the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability. The perceptions of the TAKE5 FC Openness to Experience were not statistically significant in predicting the perceptions of resilience (B = 1.77, $t_{(66)}$ = 0.86, p = .38). Similarly, the perceptions of the TAKE5 FC Conscientiousness were not statistically significant in predicting the perceptions of resilience (B = 0.75, $t_{(66)}$ = 0.57, p = .57). The perceptions of the TAKE5 FC Extraversion were not

statistically significant in predicting the perceptions of resilience (B = -1.59, $t_{(66)}$ = -0.63, p = .53). The perceptions of TAKE5 FC Agreeableness were not statistically significant in predicting the perceptions of resilience (B = -2.04, $t_{(66)}$ = -1.43, p = .16). Lastly, the perceptions of TAKE5 FC Emotional Stability were not statistically significant in the predicting perceptions of resilience (B = 4.78, $t_{(66)}$ = 1.45, p = .15). Table 44 contains a summary of the findings for the evaluation of the predictive abilities of the TAKE5 FC dimensions on the perceptions of resilience as measured by the CD-RISC.

Table 44

Predictive Model Summary: TAKE5 Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability (Normed to Stample) Predicting Perceptions of Resilience (CD-RISC)

Model	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	81.80	1.03	[79.76, 83.86]	0.00	79.81	< .001
Openness to Experience	1.77	2.00	[-2.23, 5.77]	0.19	0.89	.38
Conscientiousness	0.75	1.32	[-1.87, 3.38]	0.08	0.57	.57
Extraversion	-1.59	2.56	[-8.24, 2.25]	-0.17	-0.63	.53
Agreeableness	-2.04	1.43	[-4.88, 0.80]	-0.23	-1.43	.16
Emotional Stability	4.78	3.30	[-1.81, 11.36]	0.52	1.45	.15

Note. *p < .05.

Multiple Linear Regression (Normed to General Population). The uncorrected predictive model was statistically significant, F (5,66) = 5.16, p < .001, R^2 = .28, indicating that 28.1% of the variance in perception of resilience (CD-RISC) can be explained by the TAKE5 FC dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability. The perceptions of the TAKE5 FC Openness to Experience were not statistically significant in predicting the perceptions of resilience (B = 1.45, $t_{(66)}$ = 0.85, p = .40). Similarly, the perceptions of the TAKE5 FC Conscientiousness were not statistically significant in predicting the perceptions of resilience (B = 0.15, $t_{(66)}$ = 0.30, p = .77). The perceptions of the TAKE5 FC Extraversion were not statistically significant in predicting the perceptions of resilience (B = -2.99, $t_{(66)}$ = -1.14, p = .26). The perceptions of TAKE5 FC Agreeableness were not statistically significant in predicting the perceptions of resilience (B = -1.52, $t_{(66)}$ = -1.34, p =

.17). Lastly, the perceptions of TAKE5 FC Emotional Stability were close, but not statistically significant in predicting participant the perceptions of resilience (B = 5.69, $t_{(66)}$ = 1.99, p = .051). However, as previously mentioned, the closeness to statistical significance was eliminated (B = 3.00, $t_{(66)}$ = 1.89, p = .06) after correction for multicollinearity. Table 45 contains a summary of the findings (uncorrected for multicollinearity) for the evaluation of the predictive abilities of TAKE5 FC dimensions for perceptions of resilience as measured with the CD-RISC.

Table 45

Predictive Model Summary: TAKE5 Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability (Normed to General Population) Predicting Perceptions of Resilience (CD-RISC)

Model	*B*	*SE*	95.00% CI	β	*T*	*p*
(Intercept)	88.23	1.81	[84.62, 91.83]	0.00	48.83	< .001
Openness to Experience	1.45	1.70	[-1.94, 4.85]	0.17	0.85	.40
Conscientiousness	0.15	0.51	[-0.86, 1.16]	0.04	0.30	.77
Extraversion	-2.99	2.63	[-8.24, 2.25]	-0.30	-1.14	.26
Agreeableness	-1.52	1.14	[-3.79, 0.75]	-0.20	-1.34	.17
Emotional Stability	5.69	2.86	[-0.20, 11.40]	0.70	1.99	.051

Note. *p < .05.

Curved Estimation (Normed to Sample). In the wake of the findings for Research Question 1, I conducted follow-up analyses using individual TAKE5 FC dimensions normed to the sample population to predict Team Leaders' resilience perception as measured using the CD-RISC. The follow-up analyses included simple linear regressions and curved estimation analyses for each predictive pair. I conducted curved estimation analyses to determine whether individual predictive relationships were curvilinear rather than linear or more curvilinear than linear. As a result, Openness to Experience, Conscientiousness, Extraversion, and Emotional Stability were statistically significant in predicting CD-RISC scores. The following subsection contains a report of follow-up analyses for the simple regression and curved analyses of TAKE5 FC dimensions in predicting CD-RISC scores.

TAKE5 FC Dimension: Openness to Experience. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the

TAKE5 FC dimension of Openness to Experience and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Openness to Experience (normed to the sample) was statistically significant for linear (F (1, 70) = 9.49; p = .003, R^2 = .12) and curvilinear (F (2, 69) = 4.71; p = .01, R^2 = .12) elements of the predictive relationship. Table 46 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Openness to Experience (normed to the sample population) for CD-RISC scores.

Table 46

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Openness to Experience (Normed to Sample) Predicting CD-RISC Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	81.81	3.27	9.49	1,70	.12	.003**
Quadratic	82.04	3.22	4.71	2,69	.12	.01**

Note. $^{**}p \leq .01$.

TAKE5 FC Dimension: Conscientiousness. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Conscientiousness and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Conscientiousness (normed to the sample) was statistically significant for linear (F (1, 70) = 7.98; p = .01, R^2 = .10) and curvilinear (F (2, 69) = 7.14; p = .002, R^2 = .17) elements of the predictive relationship. Table 47 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Conscientiousness (normed to the sample population) for CD-RISC scores.

Table 47

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Conscientiousness (Normed to Sample) Predicting CD-RISC Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	81.73	3.00	7.98	1,70	.10	.01**
Quadratic	84.00	2.76	7.14	2,69	.17	.002**

Note. $^{**}p \leq .01$.

TAKE5 FC Dimension: Extraversion. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Extraversion and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the sample) was statistically significant for linear (F (1, 70) = 10.98; p = .001, R^2 = .14) and curvilinear (F (2, 69) = 5.43; p = .01, R^2 = .14) elements of the predictive relationship. Table 48 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the sample population) for CD-RISC scores.

Table 48

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to Sample) Predicting CD-RISC Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	81.78	3.53	10.98	1,70	.14	.001**
Quadratic	81.93	3.57	5.43	2,69	.14	.01**

Note. $^{**}p \leq .01$.

TAKE5 FC Dimension: Agreeableness. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Agreeableness and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Agreeableness (normed to the sample) was not statistically significant for linear (F (1, 70) = 0.50; p = .48, R^2 = .01) or curvilinear (F (2, 69) = 0.51; p = .60, R^2 = .02) elements of the predictive relationship. Table 49 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Agreeableness (normed to the sample population) for CD-RISC scores.

Table 49

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Agreeableness (Normed to Sample) Predicting CD-RISC Scores

Equation	Intercept	*β*	*F*	*Df*	R^2	*p*
Linear	81.82	0.74	0.50	1,70	.01	.48
Quadratic	82.29	0.41	0.51	2,69	.02	.60

Note. $^{**}p \leq .05$.

TAKE5 FC Dimension: Emotional Stability. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Emotional Stability and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the sample) was statistically significant for linear (F (1, 70) = 10.98; p = .001, R^2 = .14) and curvilinear (F (2, 69) = 5.43; p = .01, R^2 = .14) elements of the predictive relationship. Table 50 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the sample population) for CD-RISC scores.

Table 50

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to Sample) Predicting CD-RISC Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	81.85	4.05	16.45	1,70	.19	.001**
Quadratic	82.06	4.02	8.15	2,69	.19	.001**

Note. $^{**}p \leq .01$.

Curved Estimation (Normed to General Population). In the wake of the findings for Research Question 1, I conducted follow-up analyses using individual TAKE5 FC dimensions normed to the general population to predict Team Leaders' resilience perception as measured using the CD-RISC. The follow-up analyses were simple linear regressions and curved estimation analyses for each predictive pair. I conducted curved estimation analyses to determine whether individual predictive relationships were curvilinear rather than linear or more curvilinear than linear. As a result, Openness to Experience, Conscientiousness, Extraversion, and Emotional Stability were statistically significant in predicting CD-RISC scores.

The following subsection is a report of the follow-up analyses conducted for the curved estimations of TAKE5 FC dimensions in predicting CD-RISC scores.

TAKE5 FC Dimension: Openness to Experience. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Openness to Experience and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Openness to Experience (normed to the general population) was statistically significant for linear (F (1, 70) = 12.85; p = .001, R^2 = .16) and curvilinear (F (2, 69) = 7.40; p = .001, R^2 = .18) elements of the predictive relationship. Table 51 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Openness to Experience (normed to the general population) for CD-RISC scores.

Table 51

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Openness to Experience (Normed to General Population) Predicting CD-RISC Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	86.17	3.42	12.85	1,70	.16	.001**
Quadratic	85.61	0.57	7.40	2,69	.18	.001**

Note. $^{**}p \leq .01$.

TAKE5 FC Dimension: Conscientiousness. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Conscientiousness and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Conscientiousness (normed to the general population) was statistically significant for linear (F (1, 70) = 8.75; p = .004, R^2 = .11) and curvilinear (F (2, 69) = 7.04; p = .002, R^2 = .17) elements of the predictive relationship. Table 52 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Conscientiousness (normed to the general population) for CD-RISC scores.

Table 52

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Conscientiousness (Normed to General Population) Predicting CD-RISC Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	84.97	1.21	8.75	1,70	.11	.004**
Quadratic	84.69	-0.46	7.04	2,69	.17	.002**

Note. $^{**}p \leq .01$.

TAKE5 FC Dimension: Extraversion. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Extraversion and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Extraversion (normed to the general population) was statistically significant for linear (F (1, 70) = 12.71; p = .001, R^2 = .15) and curvilinear (F (2, 69) = 6.40; p = .003, R^2 = .16) elements of the predictive relationship. Table 53 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Extraversion (normed to the general population) for CD-RISC scores.

Table 53

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Extraversion (Normed to General Population) Predicting CD-RISC Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	86.60	3.92	12.71	1,70	.15	.001**
Quadratic	86.47	2.99	6.40	2,69	.16	.003**

Note. $^{**}p \leq .01$.

TAKE5 FC Dimension: Agreeableness. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Agreeableness and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Agreeableness (normed to the general population) was not statistically significant for linear (F (1, 70) = 0.92; p = .34, R^2 = .01) or curvilinear (F (2, 69) = 1.69; p = .19, R^2 = .05) elements of the predictive relationship. Table 54 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Agreeableness (normed to the general population) for CD-RISC scores.

Table 54

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Agreeableness (Normed to General Population) Predicting CD-RISC Scores

Equation	Intercept	*B*	*F*	*df*	R^2	*p*
Linear	82.66	0.88	0.92	1,70	.01	.34
Quadratic	82.87	-1.03	1.69	2,69	.05	.19

Note. $^{**}p \leq .05$.

TAKE5 FC Dimension: Emotional Stability. I conducted a curved estimation analysis to determine whether the curvilinear relationship between the TAKE5 FC dimension of Emotional Stability and the dependent variable of CD-RISC scores was statistically significant. The predictive model for CD-RISC scores and the follow-up analysis for the TAKE5 FC dimension of Emotional Stability (normed to the general population) was statistically significant for linear (F (1, 70) = 10.98; p = .001, R^2 = .14) and curvilinear (F (2, 69) = 5.43; p = .01, R^2 = .14) elements of the predictive relationship. Table 55 contains a summary of the findings for linear and curved estimations for the evaluation of the predictive abilities of the TAKE5 FC dimension of Emotional Stability (normed to the general population) for CD-RISC scores.

Table 55

Linear Regression and Curve Estimation for TAKE5 FC Dimension of Emotional Stability (Normed to General Population) Predicting CD-RISC Scores

Equation	Intercept	*β*	*F*	*df*	R^2	*p*
Linear	88.39	4.02	22.17	1,70	.24	.001**
Quadratic	87.51	1.61	12.01	2,69	.26	.001**

Note. $^{**}p \leq .01$.

Summary

Chapter 4 contained a report of the findings of this dissertation. In this study, I evaluated the relationship between the personality traits of Air Force EOD Team Leader Veterans of Iraq and Afghanistan and their combat performance and resilience. The research approach for this study was a quantitative, retrospective, nonexperimental, correlational design. I used three instruments in this study: (a) Team Leaders' TAKE5 FC assessment scores to evaluate personality traits, (b) Team Members' completion of the CDPRS to evaluate combat performance, and (c) Team Leaders' self-assessment on the CD-RISC to evaluate resilience.

Research Question 1 was used to identify which of the five-factor model personality traits among Air Force EOD Combat Veteran Team Leaders was most predictive of combat performance as measured by the CDPRS. I conducted MLRs by analyzing Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability against the CDPRS domains of Field and Combat Judgment, Field Readiness, Physical Endurance, Physical Conditioning, and Awareness and Vigilance. Although MLRs did not return statistically significant results, curved estimations showed statistically significant results for Extraversion and Emotional Stability. Extraversion had the most predictive power over Field Readiness for data normed to the sample population (see Table 56) and the general population (see Table 57).

Table 56

Summary Table for Research Question One (Normed to Sample Population)

	Extraversion	Emotional Stability
Field & Combat Judgement		
Field Readiness	**R^2 =.18; p = .001**	R^2 =.11; p = .02
Physical Endurance	R^2 =.11; p = .02	
Physical Courage	R^2 =.09; p = .04	R^2 =.10; p = .03
Awareness & Vigilance		

Table 57

Summary Table for Research Question One (Normed to General Population)

	Extraversion	Emotional Stability
Field & Combat Judgement		R^2 =.12; p = .01
Field Readiness	**R^2 =.17; p = .002**	R^2 =.14; p = .01
Physical Endurance	R^2 =.11; p = .02	R^2 =.09; p = .04
Physical Courage	R^2 =.09; p = .04	R^2 =.13; p = .01
Awareness & Vigilance		

Research Question 2 was posed to identify which of the five-factor model personality traits was most predictive of Team Leaders' resilience as measured using the CD-RISC. Although MLRs did not return statistically significant results, simple linear and curved regressions showed that Emotional Stability had the most

predictive power over resilience for both the data normed to the sample population (see Table 58) and the general population (see Table 59).

Table 58

Summary Table for Research Question Two (Normed to Sample Population)

	Openness	Conscientiousness	Extraversion	Emotional Stability
Linear	R^2 =.12;	R^2 =.10;	R^2 =.14;	**R^2 =.19;**
	p = .003	p = .01	p = .001	**p = .001**
Curved	R^2 =.12;	R^2 =.17;	R^2 =.14;	**R^2 =.19;**
	p = .01	p = .001	p = .001	**p = .001**

Table 59

Summary Table for Research Question Two (Normed to General Population)

	Openness	Conscientiousness	Extraversion	Emotional Stability
Linear	R^2 =.16;	R^2 =.11;	R^2 =.15;	**R^2 =.24;**
	p = .001	p = .004	p = .001	**p = .001**
Curved	R^2 =.18;	R^2 =.17;	R^2 =.16;	**R^2 =.26;**
	p = .001	p = .002	p = .003	**p = .001**

The correlations for both research questions provide insights into future talent acquisition models and leadership development programs. Using the U.S. Department of Labor Employment and Training Division's (2006) criteria, a model with an R = >.35 is considered "very beneficial." RQ1's most predictive relationship was Extroversion's correlation with Field readiness (R = .42), and RQ2's most predictive relationship was Emotional Stability's correlation with Resilience (R = .51). That said, using the TAKE5 FC as a selection model is not recommended. Instead, for this study, I used the five-factor model to analyze traits to inform future models. Salkind and Frey (2020) argued that findings with an R = >.40 have a moderate to strong relationship whereas findings with an R = >.50 have a strong relationship. Thus, this dissertation's findings are undoubtedly useful for further discussion regarding using the current success metrics. These findings and recommendations for future research and refinement are discussed in the next chapter.

Chapter 5 – Discussion

Through this dissertation, I contributed to the literature on personality trait theory within high-risk and high-stress leadership contexts. The aim of this study was to identify the personality traits of operationally successful and resilient Air Force EOD Combat Veteran Team Leaders. My findings will hopefully arm the Headquarters Air Force, the Air Force Personnel Center, the EOD Training Working Group, and EOD leaders across the enterprise with data and information to refine the Air Force EOD community's Predictive Success Model for recruiting, reevaluate human performance measures within the training pipeline, and create a leadership development process for future Air Force EOD Team Leaders. In the existing body of research, I did not locate current literature or previous studies that linked personality traits to combat performance on an individual evaluative basis. This research helps fill that gap in the literature while also building a foundation for future researchers to refine and develop newer leadership theories for high-stress and high-risk career fields.

Using the TAKE5 FC (forced-choice five-factor model personality assessment), Combat/Deployment Performance Rating Scale (CDPRS), and Connor-Davidson Resilience Scale (CD-RISC), I presented and tested two research questions within this study. The research questions addressed the following gaps: (a) understanding how leaders' personality traits can affect their combat performance; (b) understanding how leaders' personality traits can affect their resilience after high-stress and high-risk combat deployments; (c) expanding the limited amount of research within the Air Force EOD community on the relationship between personality trait theory and effective leadership within combat; and (d) increasing practical research on personality trait theory relative to leadership development within the Air Force EOD training pipeline.

In this chapter, I review the research questions, consider the theoretical and practical implications of personality traits for combat performance and resilience within the Air Force EOD community, and make recommendations for future

research in this area of interest. I also discuss the limitations of the current study and offer a summary of the research.

Research Questions

Data from the surveys addressed the research questions but did so in a manner that was different from what was predicted in the literature review. The findings from this dissertation indicated that none of the personality traits linearly correlated with job performance, as measured based on combat success, in a statistically significant manner. However, curved estimations showed that some of the domains of combat performance were predicted by curvilinear regressions against some personality traits. For resilience, only Emotional Stability came close to a significant linear correlation ($p = .051$) when analyzed with multiple linear regression (MLR). However, the closeness to that statistical significance was lost once the independent variables were corrected for multicollinearity. Four of the five personality traits correlated with resilience when analyzed with singular linear regressions. Surprisingly, resilience was better predicted with curved estimations than by singular regressions, although both showed statistical significance in most cases. The findings from this dissertation, as they relate to the research questions, are discussed in the following subsections.

Research Question 1

Research Question 1 was intended to identify which of the five-factor model personality traits among Air Force EOD Team Leader Veterans of Iraq and Afghanistan was most predictive of combat performance as measured using the CDPRS. Based on the literature review (Bech et al., 2021; Huijzer et al., 2022; Park et al., 2018; Reizer et al., 2023; Saxon et al., 2020; Yesil & Sozbilir, 2013), I predicted positive correlations across all personality traits in alignment with extant research from other career communities. The literature review also indicated the possibility of a curvilinear relationship with some personality traits given the measurable benefits for certain amounts of neuroticism displayed among high-risk military communities and curved conscientiousness in various other disciplines (Apalkova et al., 2021; Le et al., 2011; N. Liu et al., 2022; Peters et al., 2020; Yuan

et al., 2018). However, the literature lacked evidence to support that any single personality trait would stand out among the five-factor model as the most predictive of Air Force EOD Combat Veterans' performance. Thus, a single null hypothesis was predicted for RQ1. Per H_1, the five-factor model of personality traits as measured using the TAKE5 FC would not provide a single statistically significant personality trait as most predictive of combat performance as measured by the CDPRS.

Result. The findings for Research Question 1 failed to support the null hypothesis, H_1, but did so in a different manner from what was expected per the literature review. After conducting MLRs for each CDPRS domain against all TAKE5 FC personality traits, the results showed no statistically significant correlations between Team Leaders' personality traits as measured using the TAKE5 FC and their Team Members' perception of combat performance as measured using the CDPRS. This finding was surprising because the literature review indicated positive correlations between all personality traits and aspects of job performance among other career fields. Because MLRs failed to produce statistically significant results, I conducted a curved estimation for each CDPRS domain against the TAKE5 FC personality traits. The curved estimation yielded statistically significant results for the Extraversion and Emotional Stability personality traits relative to some domains of combat performance. These results confirmed the literature review's indication that a curvilinear relationship potentially existed between Emotional Stability and performance within Air Force EOD Combat Veterans, as evidenced by the existence of neuroticism within some high-risk military communities (Apalkova et al., 2021; N. Liu et al., 2022; Peters et al., 2020). A curved relationship between Extraversion and combat performance was not explicitly predicted in the literature review; however, this finding may not be surprising to those within the Air Force EOD community.

Extraversion. Despite a lack of research and literary support, Air Force EOD leaders and their recruiting media historically claimed that EOD Team Leaders required Type-A personalities and high confidence levels to perform well under pressure (*U.S. Air Force Recruiting*, 2018). Some research supports the

position that individuals' Extraversion trait is correlated with their confidence levels (Burns & Burns, 2016). Anecdotally, Air Force EOD leaders have consistently argued that successful EOD Team Leaders must strike a critical balance between displaying high levels of confidence without progressing that trait beyond the boundaries of cockiness or extreme levels of arrogance. Their assertions are grounded in an assumption that a lack of confidence and second-guessing one's decisions can be fatal in such high-stakes and high-risk career fields, whereas arrogance or cockiness can lead to tense inter-team relations and poor decision-making. As such, many local EOD leadership development and on-the-job-training programs contain elements of mentorship and exhortations for Team Members and Team Leaders to be "confident, but not cocky." The findings from this study indicating a curvilinear relationship between Extraversion and combat performance are perhaps the first-ever quantitative foundation for Air Force EOD leaders to support these enduring anecdotal assertions about the mission-related balance of confidence and cockiness as evidenced by the personality trait of Extraversion. When analyzed via curved estimation, Extraversion had statistically significant predictive power for Field Readiness, Physical Endurance, and Physical Courage. Extroversion had the largest and most significant predictive power for Field Readiness in both the target population and general population data sets.

Emotional Stability. Many individuals, both from within the EOD community and outside its ranks, have satirically noted that people need to be mildly crazy to volunteer for EOD duties. Like the assertions from Extraversion, these claims have been anecdotal and lacked academic support. However, the findings from this dissertation indicated that Air Force EOD Team Leader Veterans of Iraq and Afghanistan have lower levels of Emotional Stability compared to the general population (see Table 60). This finding aligns with current literature showing that some high-risk careers require members with certain neurotic tendencies for operational success (Apalkova et al., 2021; N. Liu et al., 2022; Peters et al., 2020).

Table 60

Descriptive Statistics for Emotional Stability z-Scores

	Minimum	Mean	Maximum	*SD*
AF EOD Team Leaders	-4.41	-1.62	1.08	1.17

Emotional Stability had predictive power over certain aspects of performance when analyzed with curved estimation. In the data set normed to the sample population, Emotional Stability demonstrated statistical significance with Field Readiness and Physical Courage. In the data set normed to the general population, Emotional Stability demonstrated statistical significance with Field and Combat Judgment, Field Readiness, Physical Endurance, and Physical Courage. Like Extraversion, Emotional Stability had the highest predictive power over Field Readiness.

Research Question 1's null hypothesis was rejected but in an unexpected manner. These findings are an essential first step for identifying and exploring whether and how Extraversion and Emotional Stability traits interact with EOD Team Leaders' combat performance. These findings also contribute to understanding how personality traits interact with task performance within high-risk and high-stress professions. To date, the literature has consistently indicated a relationship between neuroticism and performance within these communities. However, this study laid the foundation for more comprehensive analyses of curvilinear personality relationships within communities whose leaders are at increased risk for injury or death from their duties.

Research Question 2

Research Question 2 was posed to identify which of the five-factor model personality traits was most predictive of resilience as measured using the CD-RISC among Air Force EOD Team Leader Veterans of Iraq and Afghanistan. A positive relationship was predicted between all personality traits and resilience facets because research generally indicated mental health benefits for all five components of the Five-Factor Model as well as increased functional longevity (L. Burgess et al., 2010; Chen et al., 2023; Chhabra et al., 2023; N. Liu et al., 2022; Meléndez et al., 2020; Straud et al., 2015; Van Der Meulen et al., 2020; Wang et al., 2023).

However, the literature review did not indicate that any single personality trait would stand out as being most predictive of Air Force EOD Combat Veteran resilience compared to the other personality traits. Thus, the null hypothesis for Research Question 2, H_2, was that the five-factor model of personality traits as measured using the TAKE5-FC would not provide a singular statistically significant personality trait as most predictive of resilience as measured using the CD-RISC.

Result. The findings for Research Question 2 failed to support the null hypothesis but also did so in a different manner from what was predicted based on the literature review. At first, the TAKE5 FC results were normed within the sample population. When MLRs were conducted for the CD-RISC composite score against all TAKE5 FC personality traits, the results showed no statistically significant correlations between Team Leaders' personality traits as measured using the TAKE5 FC and their CD-RISC score. The TAKE5 FC scores were then normed across a sample representative of the general population. MLR data analyses failed to show statistically significant correlations for four of the five personality traits as measured using the TAKE5 FC. Only Emotional Stability came close to showing statistically significant ($p = .051$) correlations with resilience as measured using the CD-RISC, but that statistical significance was lost once independent variables were corrected for multicollinearity.

Considering the findings for Research Question 1, I conducted curved estimations for the TAKE5 FC's correlation with CD-RISC scores and found a surprising result. When analyzed using curved estimations and singular linear regressions, Openness to Experience, Conscientiousness, Extraversion, and Emotional Stability showed statistically significant correlations with CD-RISC scores across both data sets, although the general population data set generally showed more predictive power than the sample population data set. Of the four personality traits, Emotional Stability had the largest predictive power over CD-RISC scores. Curved estimations showed more predictive power ($p = .001$, $R^2 = .26$) than linear regression ($p = .001$, $R^2 = .24$). This unique finding is unpacked more in suggestions for future research.

Implications

Although the results of this dissertation addressed the research questions differently from what was expected, they offered a valuable glimpse into the relationship between personality traits and their impacts on combat performance and resilience after combat. As such, the implications for recruitment, talent management, and leadership development within the Air Force EOD community are many. Predictive Success Modeling is a relatively new development within the Armed Forces, and the use of combat performance and resilience in this dissertation as criterion measures for talent recruitment and leadership development was unchartered for predicting success until this research. As such, many of the practical implications should be contingent on and refined by future research. This section includes the theoretical and practical implications, followed by a discussion of the limitations and recommendations for future research.

Theoretical Implications

The theoretical background of this research paper rests upon personality trait theories of leadership. Scholars lack a unified theory of leadership traits, and no author or group claims ownership of the theoretical foundation. The literature varies relative to the impact of personality traits on individual performance in organizations. However, the literature predominantly supports the theory that as the traits of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability increase, so does individual performance within organizations (Cam & Alkal, 2020; Moreland et al., 2023; Park et al., 2018; Wihler, Meurs, Wiesmann et al., 2017; Zell & Lesick, 2022). The literature also chiefly indicates that as Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability increase, so does personal resilience (Chhabra et al., 2023; Cuartero & Tur, 2021; Meléndez et al., 2020; Wang et al., 2023; Willroth et al., 2023). However, some research is beginning to emerge suggesting that personality traits are curvilinearly related to workplace behaviors in some cases (Le et al., 2011; Yuan et al., 2018). For example, Widiger and Mullins-Sweatt (2009) argued that individuals with excessively high levels of Emotional Stability can be oblivious to threats and signs of danger. Hisler et al. (2020) argued

that elements of neuroticism increase sensitivity to stressful or traumatic situations. Those findings can presumably be generalized to other high-risk career fields such as Air Force EOD. This study's findings add to the emerging literature and challenge the idea that personality traits are linked linearly to the performance and resilience of Air Force EOD Technicians. Future researchers should further explore theories of curvilinear relationships within high-risk and high-stress communities.

Practical Implications

The United States Air Force is revolutionizing how it prepares Airmen for war. At the 2024 Air Force Association Warfare Symposium, the Chief of Staff of the Air Force, General David Allvin, noted that this is a "time of consequence" for the United States Air Force and that the military branch must enact sweeping changes to prepare for future war (*Secretary of the Air Force Public Affairs*, 2024). During the same symposium, the Secretary of the Air Force, Frank Kendall, noted that the branch should re-optimize for conflict with great powers and announced the rebranding of Air Education and Training Command to Airman Development Command (Naegele & Gordon, 2024). These sweeping changes provide an opportunity to employ the practical implications of this dissertation's findings. The following subsection includes suggestions for Air Force EOD leadership development moving into the future.

Recruiting and Predictive Success Modeling. The results of this study have practical implications that Air Force EOD leaders should consider when selecting recruits for EOD training at the beginning of their careers. The current Air Force EOD selection model does not evaluate potential Air Force EOD recruits or individuals within their human talent development framework based on operational success, performance in combat operations, or resilience after combat events (Hogan & Hogan, 1989; J. Johnson, 2020; Rose et al., 2013). Instead, in the studies that resulted in a Predictive Success Model leveraging components of the TAPAS and ASVAB, graduation and non-graduation of NAVSCOLEOD were used as binary dependent variables and criterion measurements. This framework is problematic because considerable evidence indicates that simply passing training does not always predict success or later proficiency in job tasks (Diamantidis &

Chatzoglou, 2014). Using a binary dependent variable also does not allow the examination of other indicators of performance in training, such as average test scores, number of failed tests, written versus practical test performance, wash-backs in training, or cadre contact time. A recent unpublished white paper by the EOD Training Detachment showed statistically significant findings that in addition to graduation and non-graduation, average test scores and number of failed tests could also be predicted by ASVAB scores. Unfortunately, TAPAS data were unavailable for the white paper's analysis. However, the findings from this dissertation indicate that factors beyond the training environment have the potential to inform recruitment and leadership development efforts. Invariably, where possible, performance in actual combat operations and resilience post-combat should be prioritized over performance in artificial training contexts when selecting human beings for dangerous and life-threatening wartime functions.

In view of this dissertation's findings, the Air Force EOD Career Field Manager should consider consulting with the Air Force Personnel Center's Strategic Research and Assessment Branch (AFPC/DSYX) to request a reevaluation of Air Force EOD's entry requirements. The DSYX branch of AFPC provides analytic capabilities to Career Field Managers to make data-driven decisions about assessing, selecting, classifying, and recruiting candidates into their career fields. Its aim is to improve training and job success while maximizing racial, ethnic, and gender diversity to meet recruiting needs. EOD's current entry standards and Predictive Success Model were designed based on available administrative data collected through training metrics gained at the Air Force EOD Preliminary Course and Naval School Explosive Ordnance Disposal. However, according to the DSYX Personnel Services Delivery Guide, DSYX can work with Career Field Managers to collect new job performance metrics and data to inform assessment models (AFPC/DSYX Consultation Information, 2021). These consultations about data collection are the most comprehensive and labor-intensive service DSYX offers, so the EOD Career Field Manager should consult DSYX early and devote EOD resources to developing EOD-specific performance measures.

Early Leadership Development. The initial training pipeline for EOD also has practical implications. After EOD candidates are assessed, selected, and placed in the EOD pipeline, they proceed to the Air Force EOD Preliminary Course in Texas and the Navy's EOD School (NAVSCOLEOD) in Florida, where they attempt to complete basic EOD skills training. Students are placed in joint-service classes for the duration of the Navy's school and taught by instructors from all four branches of the United States Military. Because NAVSCOLEOD is Navy-controlled and attended by all four branches, changes to the academic curriculum must be concurred on by multiple services and approved by a board of joint-service flag officers (1-Star Generals and higher). As such, curriculum changes are cumbersome and usually unfeasible for adding service-specific requirements. Nonetheless, there are processes aside from curriculum changes that the EOD enterprise can generalize from the Special Warfare community and implement within their initial training pipeline at the Preliminary Course and NAVSCOLEOD.

The Air Force Special Warfare community uses subjective judgments of job-relevant attributes to assess program candidates. Although this process is labor-intensive, the Special Warfare community has determined that the resource expense is worth the outcome relative to preparing their human talent pool for operations on small teams in high-risk and high-stress environments. Selecting and training candidates with higher chances of success within operational contexts will improve organizational performance, increase satisfaction, and help retention. However, because the EOD community is not considered Special Warfare, it lacks the latitude and resources that Special Warfare leaders enjoy when selecting and developing human talent. Nonetheless, similar to the Special Warfare community, Air Force EOD Technicians operate on small teams within high-stress and high-risk contexts, so Air Force leaders should consider generalizing some of the selection and development tactics from Special Warfare to the Air Force EOD community.

Personality assessments should be implemented at the Air Force EOD Preliminary Course to gauge candidates' alignment with their potential for combat effectiveness and resilience. After the Predictive Success Model is refined to reflect better training criteria, combat effectiveness, and resilience, the Air Force EOD

Career Field Manager might consider requesting the Air Force Special Operations Command Psychologist to develop a personality-based assessment program to gauge EOD candidates' alignment with combat performance and resilience markers. Like the Special Warfare program, EOD's program might include special training for EOD instructors who assess students' personalities. At the EOD Preliminary Course, students who do not meet combat performance and resilience markers by the end of their course should be redirected from the EOD program and placed in another career field. Those who possess the markers, pass the EOD Preliminary Course curriculum, and progress to NAVSCOLEOD should be entered into a personality development program while at NAVSCOLEOD.

The Air Force EOD program should implement an EOD-specific mentorship and development program that facilitates the growth and development of personality traits aligned with combat performance and resilience. Currently, the Air Education and Training Command mandates that all Air Force technical training students partake in mentorship programs that foster baseline general competencies across all career fields. However, these programs tend to address nuanced problems with general solutions. Because EOD candidates are recruited at a higher level and have exponentially more contact time with instructors than other noncombat Air Force specialties, developmental programs aimed at the general Air Force population are typically ill-fitting, cumbersome, and ineffective within the EOD training pipeline. For example, the Airmanship 200 mentorship program aims to force general Airmanship training into an EOD program where mentorship organically occurs. Similarly, BRACER FORCE aims to inject warrior-mindedness into an EOD curriculum where the core training curriculum is already grounded in wartime operations. In line with the findings from this dissertation, Air Force EOD candidates should instead be waived from participating in these types of programs and have their limited mentorship and development time away from the Navy curriculum grounded in competencies and attributes better aligned with the demonstrated combat performance and resilience among Air Force EOD Combat Veterans.

Developing and Retaining Leaders. The Air Force EOD Program's 15-year strategic plan indicated that EOD must develop and retain leaders who can decisively execute mission orders across a range of military operations during future conflicts. The findings from this dissertation suggest that Air Force EOD leaders should develop methods along the training lifecycle for Air Force EOD Technicians to foster and measure Extraversion and Emotional Stability to meet wartime mission demands successfully. Currently, the Air Force EOD program lacks a plan or resources to develop personality traits linked to combat performance and resilience. The Predictive Success Model designed by AFPC/DSYX identified personality traits that aligned with the likelihood of passing the EOD training pipeline. However, DSYX did not publicly release those results, nor were they used to create a continuing development plan for EOD Technicians beyond the training pipeline. Instead, they are only used to select recruits for EOD training. Beyond initial selection, personality traits are not formally recognized as a developmental priority for EOD human talent.

The Air Force EOD Program should also leverage the Air Force's broader initiative to incorporate competency-based learning into human talent development. The Air Force is moving toward competency modeling focused on behaviors critical to job performance instead of line-by-line task-based learning (*Air Force Handbook 36-2647*, 2022). Although EOD missions are technical in nature and require task-based evaluation, the EOD career field should incorporate competencies and personality metrics into their Specialty Training Standards and Master Training Plan. Due to resource constraints, the broader Air Force community has not adopted costly interview methodologies to establish competencies but has instead mimicked numerous competencies identified as applicable across civilian occupations (Russell, Ingerick, et al., 2023). However, the findings from this dissertation can serve as a cost-free foundation for Air Force EOD leaders to launch competency-based training and measurement.

Lastly, Air Force EOD Leaders should advocate for a targeted approach to navigate the Emotional Stability levels within their technicians. The Air Force EOD community's Predictive Success Model process identified some personality

traits that are negatively correlated with Emotional Stability, which also predicted success within the initial EOD training pipelines. This unique situation means that due to the Air Force's current identified aspects of operational necessity, the EOD program recruits members with certain personality traits that negatively correlate with Emotional Stability; yet, Emotional Stability was both linearly and curvilinearly related to resilience. Thus, EOD members are potentially postured from the outset of their careers for lower levels of resilience after exposure to high-risk and high-stress contexts such as combat operations. Air Force EOD Leaders should recognize that due to operational necessity, EOD is a high-risk asset relative to mental health longevity. As such, they should invest resources to provide higher mental and physical healthcare tiers compared to non-combat career fields and lower-risk communities. These mental health resources would provide a suitable avenue for instilling Emotional Stability into EOD Leadership development.

Limitations

This dissertation had a specific and defined focus but was not without fundamental limitations. Although leveraging the combat experience of veterans from America's last wars offered benefits to this study, problems associated with the separation of those individuals from their events and the practices of current talent selection in the Air Force remained. This section highlights several general limitations of the study.

Sample Population

The sample population was a significant limitation of this study. The Air Force does not allow data collection from active-duty populations for the sole purpose of academic research. Additionally, the Air Force Personnel Center's research equities did not align with the timelines and requirements of this dissertation. Thus, an official project analyzing these research questions across a targeted active duty and more recent sample population as secondary-use data was untenable. As such, the population targeted for data collection included the Iraqi and Afghanistan Campaign Veterans. Although 125 potential Team Leader/Team Member dyads were identified from that sample population for this dissertation,

only 81 were usable for the analysis. The Air Force EOD community usually averages around 1,300 members, whereas the joint community, including all four branches, has over 5,000 members. The retroactive nature of this dissertation means that many of the veterans' experiences were more than 10 years removed from this project (see Table 61). This type of retroactive perception tasking has proved difficult in some contexts (D. Jackson et al., 2022). The CD-RISC has shown that levels of resilience can improve or regress over time (Connor & Davidson, 2003). Earlier research suggested that personality traits remained stable over time, but recently, researchers have argued that personality traits can adapt and change pending certain external factors (Borghuis et al., 2017).

Table 61

Descriptive Statistics for Time Gap Between Deployment and Data Collection

	Minimum	Mean	Maximum	*SD*
Time Gap	6 years	15.14 years	21 years	2.60 years

This dissertation's voluntary and survey-based nature also likely impacted the sample population. Hjortskov et al. (2023) found that varying levels of motivations and value propositions tended to affect response rates for surveys. Similarly, in a volunteer-based survey such as this dissertation, individuals with specific motivation types and performance levels within the veteran community might have responded differently compared to those with other motivations and levels of performance. This type of response bias could have impacted the measurement of the study's variables.

Limited Measurement Tools

This dissertation was also limited by a lack of access to the official assessment tools the Air Force community uses. In addition to preventing the use of an exclusively active-duty sample population through official channels, Air Force policy also prevents the use of active-duty workforce and measurement tools such as the TAPAS and ASVAB. Although the TAPAS measures overall personality domains and subordinate facets, the TAKE5 FC only produced outputs for the general domains (see Table 62). As such, I could not analyze the facets of personality that are subordinate to the overall personality domains. Although

participants were asked to grade EOD Team Leaders on EOD-relevant performance, the CDPRS was based on general soldiering skills and not customized to EOD-specific tasks.

Table 62

TAPAS Domains and Facets as Compared to TAKE5 FC Domains

TAPAS Domains	TAPAS Facets	TAKE5 FC Domains
Openness to Experience	Tolerance	Openness to Experience
Conscientiousness	Achievement	Conscientiousness
	Non-Delinquency	
	Responsibility	
	Self-Control	
Extraversion	Dominance	Extraversion
	Attention Seeking	
	Sociability	
Agreeableness	Cooperation	Agreeableness
	Selflessness	
Emotional Stability	Adjustment	Emotional Stability
	Even Tempered	
	Optimism	
Other	Physical Conditioning	
	Situational Awareness	

Adverse Impact Ratios

I was unable to consider adverse impact ratios through the available data. Air Force leadership and researchers have stated that one of the primary drivers of predictive success modeling is to expand its numbers of historically underrepresented groups (Woolley et al., 2023). Many researchers have asserted that maximizing performance and diversity, equity, and inclusion are competing priorities for placement testing within some organizational contexts (Burgoyne et al., 2021; Knapp & Rumsey, 2023; Sackett et al., 2010). In fact, Velgach and Arabian (2023) suggested that "traditional measures of quality" may not be appropriate for gauging military success if diversity is to be increased (p. 370). Song et al. (2017) demonstrated that diversity improvements within job recruiting are attainable if changes to job performance requirements are accepted. Contrarily, improvements in job performance are attainable, but adverse impacts on marginalized communities are generally worsened (Song et al., 2017). When the Air Force EOD program forewent ASVAB-only testing and implemented its Predictive Success Model, its adverse impact ratio improved significantly yet

remained below the U. S. Department of Labor Employment and Training Division's (2006) recommended 80% threshold.

Although amending Air Force EOD's Predictive Success Model or determining the relationship between job performance criteria and adverse impact ratios of any future models is outside the scope of this dissertation, Air Force EOD leaders must evaluate any new or amended models to determine whether "trade-offs between selection quality and adverse impact" exist within their testing (De Corte et al., 2007, p. 1380). If trade-offs exist, Air Force EOD leaders must seek ways to improve diversity without compromising safety. Unlike civilian organizations, the military's primary objective is to prepare for and carry out combat operations (Knapp & Rumsey, 2023). EOD technicians undertake some of the world's most dangerous missions in unforgiving locations (Air Force, n.d.). If leaders amend selection standards to specifically recruit underrepresented groups for jobs where they are at higher risk of injury or death, the Air Force could inadvertently perpetuate systemic racism and institutional bias by creating a system whereby minorities are targeted for and susceptible to higher risks of fatality than their majority counterparts.

Recommendations for Future Research

The findings from this study expanded the literature about how personality traits affect combat performance and resilience within high-stress and high-risk teams. The literature review indicated correlations between all aspects of personality and combat performance and resilience. However, this dissertation resulted in some surprising findings that should serve as a foundation for future research.

EOD Specific Performance Rating Scales

The Air Force EOD Community needs to develop valid and reliable performance scales with variability that extends beyond a pass-fail binary output. After EOD Technicians graduate from their initial pipeline training, they enter upgrade training where their certifications are based on go/no-go task completion. Once these EOD Technicians are certified, their annual training plan involves only

tracking the completion of training tasks but not measuring performance or proficiency. Air Force EOD Technicians are required to complete quality assurance evaluations each year which are graded on a binary go/no-go basis and do not offer enough variability to analyze performance to a detailed level. The Air Force EOD program would benefit from an EOD-specific rating scale such as the CDPRS that analyzes performance on a 7-point Likert scale. Such a rating scale would offer EOD Team Members and Team Leaders an opportunity for better-targeted and more detailed feedback relative to their operational performance. Such a scale would also be helpful for AFPC/DSYX and Air Force EOD Leaders to use while continuing to refine the Predictive Success Model through an iterative process. Such a measurement tool would provide an effective measure of future leadership development efforts.

Analyze Combat Performance with Official Assessment Tools

More research needs to be conducted in this area using independent variable instruments that more closely reflect the Air Force's official usage. Although the TAKE5 FC was an excellent surrogate that met the purposes of this dissertation, the instrument cannot be used to analyze personality traits to the granularity of TAPAS personality facets. For example, whereas the TAKE5 FC only linked Extraversion to Combat Performance, the TAPAS is equipped to analyze Dominance, Attention Seeking, and Sociability within the domain of Extraversion. Similarly, beyond Emotional Stability, using an instrument such as the TAPAS would also avail Adjustment, Even Temperament, and Optimism for analyzing Combat Performance and Resilience. Finally, similar research should be conducted to test cognitive abilities against Combat Performance and Resilience. Specific components of the ASVAB scores have been linked to EOD training performance, so those cognitive abilities should also be tested against EOD performance in operational contexts and resilience.

Performance-Based Qualitative Interviews

A qualitative research project should be conducted to explore the experiences of Air Force EOD Veterans of Iraq and Afghanistan to navigate the phenomenology of personality traits, combat performance, and resilience. I

conducted an unpublished focus group before this dissertation with Air Force EOD Veterans of Iraq and Afghanistan to learn about their valued outcome measures and personality traits relative to operationally successful EOD Operators (Pasley, 2023). This research uncovered that themes of boldness, integrity, relational competency, and job proficiency were critical for establishing trust and cohesiveness among successful EOD operators (Pasley, 2023). These findings support recent research arguing that cultural ecosystems are crucial to establishing a sense of loyalty and belonging within organizations (Griffin, 2024). A similar study to explore the cultural ecosystem impacts on combat performance and resilience might add weight and validity to the results of this dissertation and future efforts that attempt to add to the understanding of this research area. Trait activation theory should be used with these studies to determine whether combat ecosystems ignite otherwise dormant personality traits within high-risk/high-stress leaders. Such studies could reveal whether personality traits are relevant for technical proficiency or whether their need is socially constructed within organizations, thereby creating an artificially perceived need for specific personality traits.

Research Among Other Branch's EOD Forces

Future research should be conducted beyond the Air Force and consider EOD forces among the joint community. Joint Publication 3-42 (2022) outlines the service-specific responsibilities of each branch's EOD forces. The Army's role is to provide EOD support to land operations. The Marine Corps supports mission operations for the Marine Air-Ground Task Force. Air Force EOD's mission is to support Air Force operations to provide combatant commanders with air, space, and cyberspace capabilities. Perhaps the most general of all branches, the Navy's mission statement is to provide direct combat support to the joint forces and enable freedom of maneuver and operations in areas inaccessible due to explosive hazards. Despite those unique mission sets, Joint Publication 3-42 (2022) noted that all EOD forces' mission is to support the accomplishment of the joint force or geographic combatant commander's objectives by enabling access to areas inaccessible due to a range of explosive hazards. According to the publication, joint EOD forces

should undergo common training, maintain common equipment, and significantly overlap in mission areas (*Joint Publication 3-42*, 2022). Most of the Air Force EOD Veterans surveyed for this dissertation served in Iraq and Afghanistan under an Army-controlled EOD battalion and deployed with direct tactical control by the Army or Marines. As such, extending this research to the sister services would help build on the findings of this study.

Theory of Curved Confidence

This study's findings provided the first-ever quantitative foundation to support enduring anecdotal assertions about the mission-related balance between confidence and cockiness/arrogance. When analyzed via curved estimation, these findings showed that Extraversion had statistically significant predictive power over Field Readiness, Physical Endurance, and Physical Courage. Research supports that Extraversion is related to one's confidence levels (Burns & Burns, 2016). Air Force EOD leaders have historically claimed that EOD Team Leaders required Type-A personalities and high confidence levels to perform well under pressure and have insisted that confidence must not extend to cockiness or arrogance (*U.S. Air Force Recruiting*, 2018). These same assertions have been observed among other high-risk/high-stress communities, such as Special Forces, law enforcement, and emergency responders. Until this dissertation, no academic studies existed to confirm these assertions within the Air Force EOD community. Future research should focus on the Extraversion/Confidence relationship and explore the theory of curved confidence among other high-risk/high-stress functional communities.

Emotional Stability's Impact on Resilience

This study's findings displayed an interesting conundrum about Emotional Stability's impact on Resilience. Emotional Stability and Resilience displayed a linear and curvilinear relationship, although the curved estimation had more predictive power. The linear regression results on this issue uncovered a potential recruiting and leadership development predicament within the Air Force EOD program. Because certain levels of neuroticism are operationally beneficial among some high-risk military communities (Apalkova et al., 2021; N. Liu et al., 2022;

Peters et al., 2020), these personality traits may be necessary to exploit the full operational and mission-related potential of EOD recruits. In fact, the Air Force EOD community's Predictive Success Model process identified that some personality traits that have a negative correlation with Emotional Stability also predicted success within the initial EOD training pipelines. Unfortunately, those exact results are not available to the public. Nonetheless, it is essential to note that due to the Air Force's current identified aspects of operational necessity, the EOD program recruits members with certain personality traits that have a negative correlation with Emotional Stability. Thus, from a linear regression standpoint, EOD members are potentially positioned from the outset of their careers for lower levels of resilience even before exposure to high-risk and high-stress contexts such as combat operations. This relationship means that Air Force EOD leaders might be faced with the dilemma of necessarily recruiting a population with high potential for technical proficiency at the expense of short and long-term mental resilience. The mean resilience score for the sample population was 81.79, which, according to the CD-RISC scoring manual, places this group near the 50th percentile for the general population. However, curved estimation analyses offered a different perspective on EOD resilience.

The curved estimation showed that Emotional Stability has better predictive power over Resilience than the linear regression. This curvilinear relationship might be related to the findings for Research Question 1, which indicated curved relationships between Emotional Stability and combat performance. Research has shown in some contexts that the perception of high performance and work engagement is positively related to better levels of mental health (Kim et al., 2023; Tisu et al., 2020). In this study's sample population, the Field Readiness domain of Combat Performance predicted CD-RISC scores in a statistically significant manner (F [5,66] = 6.73, $p < .002$, $R^2 = .19$), further supporting the idea that resilience could be predicted by one's job performance. If true, this finding might explain why the curvilinear model is more predictive than the linear model for Research Question 2. Nonetheless, more research needs to be conducted among the

Air Force EOD community to better understand Emotional Stability's effect on Resilience.

Summary

This chapter contained a summary of the dissertation's problem, purpose, and design. I then reviewed the study's findings and results for the research questions. A discussion about their implications, limitations, and recommendations for future research followed.

General Mark Welsh, the 20th Chief of Staff of the Air Force, spoke at the EOD Memorial Ceremony in 2016. While addressing the Air Force EOD members after the ceremony, he remarked that Air Force EOD Technicians maintained just the perfect amount of disrespect for authority. The General, perhaps unknowingly, pointed to a curvilinear relationship between military professionalism and certain personality traits he perceived within EOD warfighters and their performance in the recent Iraq and Afghanistan conflicts. This dissertation laid the first steps to confirm the General's suspicions about Air Force EOD Warfighters: that EOD Team Leaders who operate within a specific range of Extraversion and Emotional Stability generally display better combat performance. This dissertation also revealed that the range of Emotional Stability that correlates with combat performance potentially creates resilience problems later in an EOD Team Leader's life after combat experiences. These findings enhance the understanding of personality trait theory within Air Force EOD Veterans of Iraq and Afghanistan and contribute to the broader literature about leadership personality within small high-risk and high-stress teams.

References

Aase, D. M., Gorka, S. M., Soble, J. R., Bryan, C. J., & Phan, K. L. (2023). Impact of alcohol use, combat exposure, and posttraumatic stress on verbal and visual working memory performance in post-9/11 veterans. *Psychological Trauma: Theory, Research, Practice & Policy*, *15*(8), 1288–1292. https://doi.org/10.1037/tra0001285

Abdelmegeed Abdelwahed, N. A., Soomro, B. A., & Shah, N. (2023). Predicting employee performance through transactional leadership and entrepreneur's passion among the employees of Pakistan. *Asia Pacific Management Review*, *28*(1), 60–68. https://doi.org/10.1016/j.apmrv.2022.03.001

AFPC/DSYX Consultation Information. (2021, August 27). *Personnel Services Delivery (PSD) Guide.* Air Force Personnel Center.

Air Force. (n.d.). *Enlisted: Explosive ordnance disposal.* United States Air Force. https://www.airforce.com/careers/combat-and-warfare/explosive-ordnance-disposal-eod#:~:text=DESTROY%20DANGER&text=Mitigating%20the%20hazards%20of%20explosive,diverse%20and%20unforgiving%20locales%20worldwide.

Air Force Enlisted Classification Directory. (2021, October 31). *The official guide to the Air Force enlisted classification codes.* Air Force Personnel Center.

Air Force Handbook 36-2647. (2022, February 8). *Competency modeling.* Headquarters Air Force.

Air Force Manual 32-3001. (2022, April 22). *Explosive Ordnance Disposal (EOD) Program.* Headquarters Air Force.

Air Force Tactics, Techniques and Procedures 3-32.10. (2019, October 15). *Introduction to rapid airfield damage and recovery.* Headquarters Air Force.

Ali, M. A., & Malik, A. A. (2022). Personality traits and safety attitude among aviators: A correlational study. *Pakistan Journal of Clinical Psychology*, *21*(231), 3–21. http://www.pjcpku.com/index.php/pjcp/article/view/159/141

Allen, M., Russell, T., Ford, L., Carretta, T., & Kirkendall, C. (2020). *Identification of criterion constructs and measures for joint-service enlisted jobs: Interim report.* Air Force Research Laboratory.

Allen, M., Russell, T., Ford, L., Carretta, T., Lee, A., & Kirkendall, C. (2023). Identification and evaluation of criterion measurement methods. *Military Psychology*, *35*(4), 308–320. https://doi.org/10.1080/08995605.2022.2050165

Allen, S. H., & Gallagher, M. E. (2022). Is he speaking our language? Donald Trump's leadership traits in comparison with previous presidents. *Political Science Quarterly (Wiley-Blackwell)*, *137*(3), 539–568. https://doi.org/10.1002/polq.13385

Alliger, G. M., Beard, R., Bennett, W., Jr., Symons, S., & Colegrove, C. (2013). A psychometric examination of Mission Essential Competency (MEC) measures used in Air Force distributed mission operations training needs analysis. *Military Psychology*, *25*(3), 218–233. https://doi.org/10.1037/h0094964

Allison, G. T. (2017). Destined for war? *The National Interest*, *149*, 9–21. https://www.jstor.org/stable/26557386

Allport, F. H., & Allport, G. W. (1921). Personality traits: Their classification and measurement. *The Journal of Abnormal Psychology and Social Psychology*, *16*(1), 6–40. https://doi.org/10.1037/h0069790

Allport, G. W. (1927). Concepts of trait and personality. *Psychological Bulletin*, *24*(5), 284–293. https://doi.org/10.1037/h0073629

Allport, G. W. (1961). *Pattern and growth in personality.* Harcourt College Publishers.

Allport, G. W. (1970). *The nature of prejudice.* Basic Books.

Allport, G. W., & Odbert, H. S. (1936). Trait-names: A psycho-lexical study. *Psychological Monographs*, *47*(1), i–171. https://doi.org/10.1037/h0093360

Andrade, C. (2020). The limitations of online surveys. *Indian Journal of Psychological Medicine*, *42*(6), 575–576. https://doi.org/10.1177/0253717620957496

Apalkova, Y., Butovskaya, M. L., Shackelford, T. K., & Fink, B. (2021). Personality, aggression, sensation seeking, and hormonal responses to challenge in Russian alpinists and special operation forces. *Personality and Individual Differences*, *169*. https://doi.org/10.1016/j.paid.2020.110238

Arora, R., & Rangnekar, S. (2016a). Moderating mentoring relationships and career resilience: Role of conscientiousness personality disposition. *Journal of Workplace Behavioral Health*, *31*(1), 19–36. https://doi.org/10.1080/15555240.2015.1074052

Arora, R., & Rangnekar, S. (2016b). The interactive effects of conscientiousness and agreeableness on career commitment. *Journal of Employment Counseling*, *53*(1), 14–29. https://doi.org/10.1002/joec.12025

Arshad, M., & Chung, J. M. (2022). Practical recommendations for considering culture, race, and ethnicity in personality psychology. *Social & Personality Psychology Compass*, *16*(2), 1–16. https://doi.org/10.1111/spc3.12656

Atwell, C. R. (1937). Relationship of scores and errors on the Army Alpha Test. *Journal of Applied Psychology*, *21*(4), 451–455. https://doi.org/10.1037/h0059639

Bagherian, A., Gershon, M., & Kumar, S. (2023). Scrutinizing the types of leadership traits that contribute to the success of Six Sigma implementation: An empirical study. *Quality & Reliability Engineering International*, *39*(6), 2608–2636. https://doi.org/10.1002/qre.3363

Bai, Q., Bai, S., Dan, Q., Lei, L., & Wang, P. (2020). Mother phubbing and adolescent academic burnout: The mediating role of mental health and the moderating role of agreeableness and neuroticism. *Personality and Individual Differences*, *155*. https://doi.org/10.1016/j.paid.2019.109622

Baier, F., Decker, A. T., Voss, T., Kleickmann, T., Klusmann, U., & Kunter, M. (2019). What makes a good teacher? The relative importance of mathematics teachers' cognitive ability, personality, knowledge, beliefs, and motivation for instructional quality. *The British Journal of Educational Psychology*, *89*(4), 767–786. https://doi.org/10.1111/bjep.12256

Baldor, L. (2022, July 19). *Army cuts force size amid unprecedented battle for recruits.* Associated Press. https://apnews.com/article/covid-politics-health-army-dc5db721e3270e0e92a0210daa890860

Balducci, C., Alessandri, G., Zaniboni, S., Avanzi, L., Borgogni, L., & Fraccaroli, F. (2021). The impact of workaholism on day-level workload and emotional exhaustion, and on longer-term job performance. *Work & Stress*, *35*(1), 6–26. https://doi.org/10.1080/02678373.2020.1735569

Bandow, D. (2022, October 24). *What would a U.S. war with China look like?* CATO Institute. https://www.cato.org/commentary/what-would-us-war-china-look

Bandura, A. (1977). *Social learning theory.* Prentice-Hall.

Barelka, A., Barron, L. G., Kulpa, P., Hernandez, S., & Coggins, M. (2019). *Development and validation of Air Force foundational competency model* (Technical Report No. 1). Air Education and Training Command. https://apps.dtic.mil/sti/pdfs/AD1083781.pdf

Barlow, F. K. (2019). Nature vs. nurture is nonsense: On the necessity of an integrated genetic, social, developmental, and personality psychology. *Australian Journal of Psychology*, *71*(1), 68–79. https://doi.org/10.1111/ajpy.12240

Barron, L., & Rolwes, P. (2020). *Development of Air Force foundational competency assessments* (Technical Report No. 2). Air Education and Training Command. https://apps.dtic.mil/sti/pdfs/AD1120209.pdf

Bartram, D. (2005). The great eight competencies: A criterion-centric approach to validation. *Journal of Applied Psychology*, *90*(6). https://doi.org/10.1037/0021-9010.90.6.1185

Bech, S. C., Dammeyer, J., & Liu, J. (2021). Changes in personality traits among candidates for special operations forces. *Military Psychology*, *33*(3), 197–204. https://doi.org/10.1080/08995605.2021.1902178

Bendersky, C., & Parikh Shah, N. (2013). The downfall of extraverts and rise of neurotics: The dynamic process of status allocation in task groups. *Academy of Management Journal*, *56*(2), 387–406. https://doi.org/10.5465/amj.2011.0316

Berga, L., & Austers, I. (2022). Job performance predictors in a group of information and communication technology specialists. *Baltic Journal of Psychology*, *23*(1/2), 4–19. https://doi.org/10.22364/bjp.23.01

Beynon, S. (2021, August 24). *'Cheated and guilty': The struggle for troops who missed out on combat.* Military. https://www.military.com/daily-news/2021/08/24/cheated-and-guilty-struggle-troops-who-missed-out-combat.html

Bezdjian, S., Schneider, K. G., Burchett, D., Baker, M. T., & Garb, H. N. (2017). Resilience in the United States Air Force: Psychometric properties of the Connor-Davidson Resilience Scale (CD-RISC). *Psychological Assessment*, *29*(5), 479–485. https://doi.org/10.1037/pas0000370

Boake, C. (2002). From the Binet–Simon to the Wechsler–Bellevue: Tracing the history of intelligence testing. *Journal of Clinical & Experimental Neuropsycholog*y, *24*(3), 383–405. https://doi.org/10.1076/jcen.24.3.383.981

Borghuis, J., Denissen, J. J. A., Oberski, D., Sijtsma, K., Meeus, W. H. J., Branje, S., Koot, H. M., & Bleidorn, W. (2017). Big Five personality stability, change, and codevelopment across adolescence and early adulthood. *Journal of Personality and Social Psychology*, *113*(4), 641–657. https://doi.org/10.1037/pspp0000138.supp (Supplemental)

Bovin, M. J., Schneiderman, A., Bernhard, P. A., Maguen, S., Hoffmire, C. A., Blosnich, J. R., Smith, B. N., Kulka, R., & Vogt, D. (2023). Development and validation of a brief warfare exposure measure among US Iraq and Afghanistan war veterans: The Deployment Risk and Resilience Inventory-2 Warfare Exposure-Short Form (DRRI-2 WE-SF). *Psychological Trauma: Theory, Research, Practice, and Policy*, *15*(8), 1248–1258. https://doi.org/10.1037/tra0001282

Boyle, G. J., Stankov, L., Martin, N. G., Petrides, K. V., Eysenck, M. W., & Ortet, G. (2016). Hans J. Eysenck and Raymond B. Cattell on intelligence and personality. *Personality & Individual Differences*, *103*, 40–47. https://doi.org/10.1016/j.paid.2016.04.029

Bradley, B. H., Baur, J. E., Banford, C. G., & Postlethwaite, B. E. (2013). Team players and collective performance: How agreeableness affects team performance over time. *Small Group Research*, *44*(6), 680–711. https://doi.org/10.1177/1046496413507609

Brandt, N. D., Lechner, C. M., Tetzner, J., & Rammstedt, B. (2020). Personality, cognitive ability, and academic performance: Differential associations across school subjects and school tracks. *Journal of Personality*, *88*(2), 249–265. https://doi.org/10.1111/jopy.12482

Brown, M. I., Grossenbacher, M. A., Martin, R. M. P., Kochert, J., & Prewett, M. S. (2021). Can you crowdsource expertise? Comparing expert and crowd-based scoring keys for three situational judgment tests. *International Journal of Selection & Assessment*, *29*(4), 467–482. https://doi.org/10.1111/ijsa.12353

Burgess, L., Irvine, F., & Wallymahmed, A. (2010). Personality, stress and coping in intensive care nurses: a descriptive exploratory study. *Nursing in Critical Care, 15*(3), 129–140. https://doi.org/10.1111/j.1478-5153.2009.00384.x

Burgess, T. F., & Heap, J. (Eds.). (2015). *Performance measurement and management of professional and knowledge work* (Ser. International journal of productivity and performance management, volume 64, number 4, 2015). Emerald Group Publishing Limited.

Burgoyne, A. P., Mashburn, C. A., & Engle, R. W. (2021). Reducing adverse impact in high-stakes testing. *Intelligence*, *87*, N.PAG. https://doi.org/10.1016/j.intell.2021.101561

Burns, K. M., & Burns, N. R. (2016). Confidence-more a personality or ability trait? It depends on how it is measured: A comparison of young and older adults. *Frontiers in Psychology.* https://doi.org/10.3389/fpsyg.2016.00518

Calleja, J. A., Hoggan, B. L., & Temby, P. (2020). Individual predictors of tactical planning performance in junior military officers. *Military Psychology*, *32*(2), 149–163. https://doi.org/10.1080/08995605.2019.1691405

Cam, S., & Alkal, A. (2020). An investigation of interpersonal problem solving in university students in terms of personality traits, resilience and hope. *European Journal of Educational Sciences*, *7*(1), 15–31. https://doi.org/10.19044/ejes.v7no1a2

Campbell, J. P. (2012). Behavior, performance, and effectiveness in the 21st century. In S. Kozlowski (Ed.), *The Oxford handbook of organizational psychology: Volume 1* (pp. 159–196). Oxford University Press.

Campbell, J. P. (2023). Comments on the articles dealing with individual performance criteria that are included in this special issue of Military Psychology. *Military Psychology*, *35*(4), 372–375. https://doi.org/10.1080/08995605.2023.2218259

Campbell, J. P., Castaneda, M., & Pulos, S. (2010). Meta-analysis of personality assessments as predictors of military aviation training success. *International Journal of Aviation Psychology*, *20*(1), 92–109. https://doi.org/10.1080/1050841090341587

Campbell, J. P., & Knapp, D. J. (Eds.). (2001). *Exploring the limits in personnel selection and classification.* Lawrence Erlbaum Associates.

Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In N. Schmitt & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 35–70). Jossey-Bass.

Campbell, J. S., Moore, J. L., Poythress, N. G., & Kennedy, C. H. (2009). Personality traits in clinically referred aviators: Two clusters related to occupational suitability. *Aviation, Space, and Environmental Medicine, 80*(12). 1049-54. https://doi.org/10.3357/asem.2491.2009

Canivez, G. L., & Schraw, G. (2010). Wechsler Adult Intelligence Scale--Fourth Edition. *The Eighteenth Mental Measurements Yearbook*. https://search.ebscohost.com/login.aspx?direct=true&db=mmt&AN=test.3182&site=ehost-live&scope=site

Carberry, S. (2023, June 1). *Air Force wants to sift through simulation data to boost training.* National Defense. https://www.nationaldefensemagazine.org/articles/2023/4/26/the-air-force-research-laboratory-wants-more-training-data

Cárdenas Moren, C., Crawford Augant, K., Crawford Labrin, B., Soto de Giorgis, R., de la Fuente-Mella, H., Peña Fritz, Á., Valenzuela Saavedra, M., Hermosilla Monckton, P., & Álvarez Castelli, L. (2020). A quantitative analysis of the identification of personality traits in engineering students and their relation to academic performance. *Studies in Higher Education*, *45*(7), 1323–1334. https://doi.org/10.1080/03075079.2019.1572089

Career Field Education and Training Plan 3E8X1. (2020, January). *Explosive Ordnance Disposal Specialty: Career Field Education and Training Plan.* Headquarters Air Force.

Carleton, E. L., Barling, J., & Trivisonno, M. (2018). Leaders' trait mindfulness and transformational leadership: The mediating roles of leaders' positive affect and leadership self-efficacy. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, *50*(3), 185–194. https://doi.org/10.1037/cbs0000103

Carretta, T. R., & King, R. E. (2008). Improved military air traffic controller selection methods as measured by subsequent training performance. *Aviation, Space, and Environmental Medicine*, *79*(1), 36–43. https://doi.org/10.3357/ASEM.2166.2008

Carretta, T. R., Rose, M. R., & Barron, L. G. (2015). Predictive validity of UAS/RPA sensor operator training qualification measures. *International Journal of Aviation Psychology*, *25*(1), 3–13. https://doi.org/10.1080/10508414.2015.981487

Carson, J. (1993). Army alpha, Army brass, and the search for Army intelligence. *ISIS: Journal of the History of Science in Society*, *84*(2), 278–309. https://doi.org/10.1086/356463

Carter, N. T., Dalal, D. K., Boyce, A. S., O'Connell, M. S., Kung, M. C., & Delgado, K. M. (2014). Uncovering curvilinear relationships between conscientiousness and job performance: How theoretically appropriate measurement makes an empirical difference. *Journal of Applied Psychology*, *99*(4). https://doi.org/10.1037/a003468

Caska, C., & Renshaw, K. (2013). Personality traits as moderators of the associations between deployment experiences and PTSD symptoms in OEF/OIF service members. *Anxiety, Stress & Coping*, *26*(1), 36–51. https://doi.org/10.1080/10615806.2011.638053

Cattell, J. M., & Bryant, S. (1889). Mental association investigated by experiment. *Mind, 14*(54), 230–250. http://www.jstor.org/stable/2247302

Cattell, R. B. (1943). The description of personality: Basic traits resolved into clusters. *The Journal of Abnormal and Social Psychology*, *38*(4), 476–506. https://doi-org/10.1037/h0054116

Cattell, R. B. (1957). *Personality and motivation structure measurement.* World Book Company.

Cattell, R. B., & Tregaskis, D. V. G. (1965). *The scientific analysis of personality* (Vol. 27). Penguin Books.

Chalmers, D. (2011). Progress and challenges to the recognition and reward of the scholarship of teaching in higher education. *Higher Education Research and Development*, *30*(1), 25–38. https://doi.org/10.1080/07294360.2011.536970

Chamarette, R. M. (2022). Sir Francis Galton: A historiographical reassessment of British psychology's eugenic past, 1860-1940. *History & Philosophy of Psychology*, *23*(1), 18–32. https://doi.org/10.53841/bpshpp.2022.23.1.18

Chaparro, M. E., Carroll, M., & Malmquist, S. (2020). Personality trends in the pilot population. *Collegiate Aviation Review International*, *38*(2), 11–34. https://doi.org/10.22488/okstate.20.100219

Chattopadhyay, R. (2019). Impact of forced distribution system of performance evaluation on organizational citizenship behaviour. *Global Business Review*, *20*(3), 826–837. https://doi.org/10.1177/0972150917721819

Chen, Z., Shen, S., & Dai, Q. (2023). Long-term and short-term psycho-social predictors of early-adulthood depression: Role of childhood trauma, neuroticism, social-support, resilience, and life-events. *Current Psychology*, *42*(5), 3904–3916. https://doi.org/10.1007/s12144-021-01570-5

Chhabra, S., Wafa, M., & Sharma, A. (2023). Exploring the role of gender and personality differences in promoting resilience among the Gen-Z population of India. *Indian Journal of Positive Psychology*, *14*(3), 337–342. https://iahrw.org/our-services/journals/indian-journal-of-positive-psychology/

Ching-Hsin, Y. (2023). Why tickle the dragon's tail? Taiwanese attitudes toward the China threat and the role of the United States. *Asian Survey*, *63*(1), 150–174. https://doi.org/10.1525/as.2022.1806395

Chu, F., Fu, Y., & Liu, S. (2019). Organization is also a "life form": Organizational-level personality, job satisfaction, and safety performance of high-speed rail operators. *Accident Analysis and Prevention*, *125*, 217–223. https://doi.org/10.1016/j.aap.2019.01.027

Chu, X., Zhentao, M., Li, Y., & Han, J. (2015). Openness, conscientiousness, extraversion, stressor and psychological stress response. *International Journal of Business Administration*, *6*(4), 11–18. https://doi.org/10.5430/ijba.v6n4p11

Çıvgın, U., Yorulmaz, E., & Yazar, K. (2023). Mediator role of resilience in the relationship between neuroticism and psychological symptoms: COVID-19 Pandemic and supermarket employees. *Current Psychology*, *42*(23), 20226–20238. https://doi.org/10.1007/s12144-023-04725-8

Clauser, B. E. (2007). The life and labors of Francis Galton: A review of four recent books about the father of behavioral statistics. *Journal of Educational and Behavioral Statistics*, *32*(4), 440–444. https://doi.org/10.3102/1076998607307449

Connor, K. M., & Davidson, J. T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression & Anxiety (1091- 4269)*, *18*(2), 76–82. https://doi.org/10.1002/da.10113

Corazzini, L., D'Arrigo, S., Millemaci, E., & Navarra, P. (2021). The influence of personality traits on university performance: Evidence from Italian freshmen students. *PLoS ONE*, *16*(11), 1–20. https://doi.org/10.1371/journal.pone.0258586

Cornell-d'Echert, B. (2012). Beyond training: New ideas for military forces operating beyond war. *New Directions for Adult & Continuing Education*, *2012*(136), 17–27. https://doi.org/10.1002/ace.20032

Costa, P. T., & McCrae, R. R. (1992). The five-factor model of personality and its relevance to personality disorders. *Journal of Personality Disorders*, *6*(4), 343–359. https://doi.org/10.1521/pedi.1992.6.4.343

Coy-Ne, C. J., & Hall, A. R. (2023). How to run wars: A confidential playbook for the national security elite. *Independent Review*, *27*(4), 613–625. https://dx.doi.org/10.2139/ssrn.4225097

Crandell, J. (2020, June 9). *COPE North rapid airfield damage recovery.* Pacific Air Forces. https://www.pacaf.af.mil/News/Article-Display/Article/2220742/cope-north-rapid-airfield-damage-recovery/

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.

Cronbach, L. J. (1979). The Armed Services Vocational Aptitude Battery--A test battery in transition. *Personnel & Guidance Journal*, *57*(5), 232. https://doi.org/10.1002/j.2164-4918.1979.tb05154.x

Cuartero, N., & Tur, A. M. (2021). Emotional intelligence, resilience and personality traits neuroticism and extraversion: Predictive capacity in perceived academic efficacy. *Nurse Education Today*. https://doi.org/10.1016/j.nedt.2021.104933

Cui, G., Wang, F., & Zhang, Y. (2023). Buffer or boost? The role of openness to experience and knowledge sharing in the relationship between team cognitive diversity and members' innovative work behavior. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, *42*(29), 25233–25245. https://doi.org/10.1007/s12144-022-03633-7

Dale, B. A., Finch, M. H. Á., Mcintosh, D. E., Rothlisberg, B. A., & Finch, W. H. (2014). Utility of the Stanford-Binet Intelligence Scales, Fifth Edition, with ethnically diverse preschoolers. *Psychology in the Schools*, *51*(6), 581–590. https://doi.org/10.1002/pits.21766

Darr, W. A., Ebel-Lam, A., & Doucet, R. G. (2018). Investigating the extravert advantage in training: Exploring reward sensitivity, training motivation, and self-efficacy as intermediary factors. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement*, *50*(3), 172–184. https://doi.org/10.1037/cbs0000102

Darr, W. A., & Kelloway, E. K. (2016). Sifting the Big Five: Examining the criterion-related validity of facets. *Journal of Organizational Effectiveness: People and Performance*, *3*, 2–22. http://dx.doi.org/10.1108/JOEPP-11-2015-0038

Das, A., & Arora, D. (2020). Positive psychology of resilience: How the big five personality factors mediate resilience. *Indian Journal of Positive Psychology*, *11*(1), 55–58. https://doi.org/10.15614/ijpp.v11i01.12

Deaile, M. (2022, August 1). *The future of the bomber in an air superiority role: Fighting an adaptive, complex enemy in the Pacific.* Air University. https://www.airuniversity.af.edu/JIPA/Display/Article/3111116/the-future-of-the-bomber-in-an-air-superiority-role-fighting-an-adaptive-comple/

De Corte, W., Lievens, F., & Sackett, P. R. (2007). Combining predictors to achieve optimal trade-offs between selection quality and adverse impact. *Journal of Applied Psychology*, *92*(5), 1380–1393. https://doi.org/10.1037/0021-9010.92.5.1380

Demographics. (2020). *Profile of the military community.* Department of Defense: Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy. https://download.militaryonesource.mil/12038/MOS/Reports/2020-demographics-report.pdf

Deniz Günaydin, H. (2021). Impacts of personality on job performance through COVID-19 fear and intention to quit. *Psychological Reports*, *124*(6), 2739–2760. https://doi.org/10.1177/00332941211040433

Department of the Air Force Instruction 36-2406. (2023, August 4). *Officer and Enlisted Evaluations Systems.* Headquarters Air Force.

Department of the Air Force Instruction 36-2670. (2020, June 25). *Total Force Development.* Headquarters Air Force.

Department of the Navy Education and Training Command. (2011, March). *Navy School Testing Program Management Manual.* Naval Education and Training Command.

DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, *93*, 880–896. http://dx.doi.org/10.1037/0022-3514.93.5.880

Dhar, B. K., Tiep Le, T., Coffelt, T. A., & Shaturaev, J. (2023). U.S.-China trade war and competitive advantage of Vietnam. *Thunderbird International Business Review*, *65*(2), 255–263. https://doi.org/10.1002/tie.22325

Diamantidis, A. D., & Chatzoglou, P. D. (2014). Employee post-training behaviour and performance: Evaluating the results of the training process. *International Journal of Training & Development*, *18*(3), 149–170. https://doi.org/10.1111/ijtd.12034

Diaz, M. M., Fuentes, J. P., Fernandez, L. J., Aznar, L. S., & Clemente, S. V. J. (2018). Higher use of techniques studied and performance in melee combat produce a higher psychophysiological stress response. *Stress & Health: Journal of the International Society for the Investigation of Stress*, *34*(5), 622–628. https://doi.org/10.1002/smi.2829

Dinh, J. E., & Lord, R. G. (2012). Implications of dispositional and process views of traits for individual difference research in leadership. *The Leadership Quarterly*, *23*(4), 651–669. https://doi.org/10.1016/j.leaqua.2012.03.003

Dinler, M., & Balcı, A. (2021). When leadership traits meet historic success: Hassan Rouhani and the nuclear deal of 2015. *DOMES: Digest of Middle East Studies*, *30*(1), 6–21. https://doi.org/10.1111/dome.12225

Dirzyte, A., Antanaitis, F., & Patapas, A. (2022). Law enforcement officers' ability to recognize emotions: The role of personality traits and basic needs' satisfaction. *Behavioral Sciences (2076-328X)*, *12*(10). https://doiorg/10.3390/bs12100351

Dishon-Berkovits, M., Bakker, A. B., & Peters, P. (2023). Playful work design, engagement and performance: The moderating roles of boredom and conscientiousness. *The International Journal of Human Resource Management.* https://doi.org/10.1080/09585192.2023.2227920

Dorsey, D. W., Cortina, J. M., Allen, M. T., Waters, S. D., Green, J. P., & Luchman, J. (2017). Adaptive and citizenship-related behaviors at work. In J. L. Farr & N. T. Tippins (Eds.), *Handbook of employee selection* (2nd ed., pp. 448–475). Routledge.

Douglas, K., & Gray, S. (2020). Generational complexities present new challenges for nurse leaders. *Nurse Leader*, *18*(2), 126–129. https://doi.org/10.1016/j.mnl.2019.12.008

Dover, S. J. (2002). *The characterization and prediction of Soldier performance during routine service and in combat* (Research Note 2002-03). U.S. Army Research Institute for the Behavioral and Social Sciences. https://apps.dtic.mil/sti/pdfs/ADA399051.pdf

Drasgow, F. (2020). Prediction of performance by non-cognitive traits. *Military Psychology*, *32*(1), 127–134. https://doi.org/10.1080/08995605.2019.1652479

Drasgow, F., Chernyshenko, O. S., Stark, S., & Nye, C. D. (2023). *Tailored Adaptive Personality Assessment System (TAPAS) pre-implementation documentation: Interim report.* Air Force Research Laboratory.

Drasgow, F., Stark, S., Chernyshenko, O. S., Nye, C. D., & Hulin, C. L. (2012). *Technical Report 1311: Development of the Tailored Adaptive Personality Assessment System (TAPAS) to support Army selection and classification decisions*. U.S. Army Research Institute.

Dretsch, M. N., Trachik, B., Taylor, M., Kotov, R., & Krueger, R. (2022). Variability in the stability of personality traits across a single combat deployment. *Military Psychology*, *34*(4), 422–431. https://doi.org/10.1080/08995605.2021.2003147

Ellis, B. D., Russell, T., Huber, C. R., Graves, C. R., & Ford, L. A. (2023). Development of cross-service training and job performance criterion measures for the US Military. *Military Psychology*, *35*(4), 321–334. https://doi.org/10.1080/08995605.2023.2175542

Elswah, M., & Howard, P. N. (2020). "Anything that causes chaos": The organizational behavior of Russia Today (RT). *Journal of Communication*, *70*(5), 623–645. https://doi.org/10.1093/joc/jqaa027

Emory, J., Lee, P. B., Kippenbrock, T., Boyd, T., Chen, L., & Harless, L. (2022). Commitment, job satisfaction and personality: A cross sectional study of generational cohorts in nursing students. *Journal of Professional Nursing*, *40*, 42–47. https://doi.org/10.1016/j.profnurs.2022.02.010

Enlisted Force Structure. (2022, May 16). Headquarters Air Force.

Escolas, H. D., Ray, L. N., & Escolas, S. M. (2016). Personality traits and family styles of combat medics in training. *Military Medicine*, *181*(6), 546–552. https://doi.org/10.7205/MILMED-D-15-00165

Ewen, R. B. (2010). *An introduction to theories of personality* (7th ed.). Psychology Press.

Eysenck, H. J. (1955). Psychiatric diagnosis as a psychological and statistical problem. *Psychological Reports*, *1*, 3–17. https://doi.org/10.2466/PR0.1..3-17

Eysenck, H. J. (1980). The biosocial nature of man. *Journal of Social and Biological Structures*, *3*(2), 125–134. https://doi.org/10.1016/0140-1750(80)90005-6

Eysenck, H. J. (1983). Is there a paradigm in personality research? *Journal of Research in Personality*, *17*(4), 369–397. https://doi.org/10.1016/0092-6566(83)90067-3

Eysenck, H. J. (1991). Dimensions of personality: 16, 5 or 3? Criteria for a taxonomic paradigm. *Personality and Individual Differences*, *12*(8), 773–790. https://doi.org/10.1016/0191-8869(91)90144-Z

Eysenck, S. B., & Eysenck, H. J. (1977). Personality differences between prisoners and controls. *Psychological Reports*, *40*(3, Pt 2), 1023–1028. https://doi.org/10.2466/pr0.1977.40.3c.1023

Farahani, M. N., Kormi-Nouri, R., & De Raad, B. (2019). The relations between conscientiousness and mental health in a North-European and a West-Asian culture. *Journal of Mental Health*, *28*(2), 112–118. https://doiorg/10.1080/09638237.2017.1340597

Fischer, I. C., Feldman, D. B., Tsai, J., Harpaz-Rotem, I., Lucas, K. A., Schulenberg, S. E., & Pietrzak, R. H. (2023). Identifying significant correlates of purpose in life in older us military veterans: Results from the national health and resilience in veterans study. *International Psychogeriatrics.* https://doi.org/10.1017/S1041610222001223

Fiske, D. W. (1949). Consistency of the factorial structures of personality ratings from different sources. *The Journal of Abnormal and Social Psychology*, *44*(3), 329–344. https://doi.org/10.1037/h0057198

Fleming, D. E., & Jia, H. H. (2016). Recruiting for technology reliant positions: Can common personality inventories improve success? *Journal of Managerial Issues*, *28*(3/4), 248–265. https://www.jstor.org/stable/44113707

Flournoy, M. A. (2021). America's military risks losing its edge. *Foreign Affairs*, *100*(3), 76–90. https://www.foreignaffairs.com/articles/united-states/2021-04-20/flournoy-americas-military-risks-losing-its-edge

Foster, W. S. (1923). The Army Alpha Test. In *Experiments in psychology*. (pp. 222–226). Henry Holt and Company. https://doi.org/10.1037/10966-019

Freud, S. (1917). *A general introduction to psychoanalysis.* Boni and Liveright.

Gaddy, J. W., Gonzalez, S. P., Lathan, C. A., & Graham, P. K. (2017). The perception of authentic leadership on subordinate resilience. *Military Behavioral Health*, *5*(1), 64–72. https://doi.org/10.1080/21635781.2016.1243495

Gale, C. R., Hagenaars, S. P., Davies, G., Hill, W. D., Liewald, D. C. M., Cullen, B., Penninx, B. W., Boomsma, D. I., Pell, J., McIntosh, A. M., Smith, D. J., Deary, I. J., & Harris, S. E. (2016). Pleiotropy between neuroticism and physical and mental health: findings from 108 038 men and women in UK Biobank. *Translational Psychiatry*, *6*(4), e791. https://doi.org/10.1038/tp.2016.56

Galton, F. (2003). Inquiries into human faculty and its development. In P. Munger (Ed.), *The history of psychology: Fundamental questions* (pp. 232–247). Oxford University Press.

Garavan, T., McCarthy, A., Sheehan, M., Lai, Y., Saunders, M. N. K., Clarke, N., Carbery, R., & Shanahan, V. (2019). Measuring the organizational impact of training: The need for greater methodological rigor. *Human Resource Development Quarterly*, *30*(3), 291–309. https://doi.org/10.1002/hrdq.21345

Garland, C. (2021, December 7). *New Air Force rules allow hands in pockets, slew of uniform and appearance changes.* Stars and Stripes. https://www.stripes.com/branches/air_force/2021-12-07/air-force-uniform-grooming-changes-effective-instruction-published-3890455.html

Ge, J. J., Zhang, P., & Dong, D. (2022). Can extrinsic motivational state hinder good behavior? The mediating role of ambition and competition in relationships of contingent rewards and punishments with work performance. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, *41*(4), 2162–2183. https://doi.org/10.1007/s12144-020-00688-2

Gebhardt, D. L., & Baker, T. A. (2023). Designing criterion measures for physically demanding jobs. *Military Psychology*, *35*(4), 335–350. https://doi.org/10.1080/08995605.2022.2063008

Gelino, B. W., Critchfield, T. S., & Reed, D. D. (2023). Measuring the dissemination impact of culturo-behavioral science. *Behavior and Social Issues*, *32*(1), 88–114. https://doi.org/10.1007/s42822-022-00120-3

Gersh, D. A. (1981). The development and use of IQ tests in the United States from 1900 to 1930 [ProQuest Information & Learning]. *Dissertation Abstracts International*, 42(6–B), 2599.

Giannini, M., & Loscalzo, Y. (2016). Workaholism: Health risk and prevention in the organizations. In A. Di Fabio (Ed.), *Neuroticism: Characteristics, impact on job performance and health outcomes* (pp. 49–60). Nova.

Gifford, B. R. (1990). The political economy of testing and opportunity allocation. *Journal of Negro Education*, *59*(1), 58–69. https://doi.org/10.2307/2295292

Giumetti, G. W., Schroeder, A. N., & Switzer, F. S., III. (2015). Forced distribution rating systems: When does “rank and yank” lead to adverse impact? *Journal of Applied Psychology*, *100*(1). https://doi.org/10.1037/a0037191

Gniewosz, G. (2023). Adolescent loneliness and negative affect during the COVID-19 pandemic: The role of extraversion and neuroticism. *Journal of Youth & Adolescence*, *52*(9), 1965–1982. https://doi.org/10.1007/s10964-023-01808-4

Goldberg, L. R. (1981). Language and individual differences: The search for universals in personality lexicons. In L. Wheeler (Ed.), *Review of personality and social psychology* (Vol. 2., pp. 141–165). Sage.

Goldberg, L. R. (1990). An alternative "description of personality": The Big-Five Factor Structure. *Journal of Personality & Social Psychology*, *59*(6), 1216–1229. https://doi.org/10.1037/0022-3514.59.6.1216

Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, *4*(1), 26–42. https://doi.org/10.1037/1040-3590.4.1.26

Goldberg, L. R. (2003). *International Personality Item Pool. A scientific collaboratory for the development of advanced measures of personality traits and other individual differences*. http://ipip.ori.org/ [Stand 01.03.03].

Goodfellow, L. T. (2023). An overview of survey research. *Respiratory Care*, *68*(9), 1309–1313. https://doi.org/10.4187/respcare.11041

Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, *37*(6), 504–528. https://doi.org/10.1016/S0092-6566(03)00046-1

Government Accountability Office. (2017). *Military personnel, improvements needed in the management of enlistees' medical early separation and enlistment information* (GAO Publication No. 17-527). U.S. Government Printing Office.

Government Accountability Office. (2019). *Military personnel: Strategy needed to improve retention of experienced Air Force aircraft maintainers* (GAO Publication No. 19-160). U.S. Government Printing Office.

Government Accountability Office. (2022). *Air Force and Navy aviation: Actions needed to address persistent sustainment risks* (GAO Publication No. 22-104533). U.S. Government Printing Office.

Graiver, I. (2021). A historical perspective on mental health: Proposal for a dialogue between history and psychology. *History of Psychology*, *24*(1), 1–12. https://doi.org/10.1037/hop0000139.supp (Supplemental)

Green, K. T., Hayward, L. C., Williams, A. M., Dennis, P. A., Bryan, B. C., Taber, K. H., Mid-Atlantic Mental Illness Research, Education and Clinical Center Workgroup, Davidson, J. R., Beckham, J. C., & Calhoun, P. S. (2014). Examining the factor structure of the Connor-Davidson Resilience Scale (CD-RISC) in a post-9/11 U.S. military veteran sample. *Assessment*, *21*(4), 443–451. https://doi.org/10.1177/1073191114524014

Greenidge, D., & Coyne, I. (2014). Job stressors and voluntary work behaviours: Mediating effect of emotion and moderating roles of personality and emotional intelligence. *Human Resource Management Journal*, *24*(4), 479–495. https://doi.org/10.1111/1748-8583.12044

Griffin, G. M. (2024). *Does participation matter? Exploring the role of participation in corporate leadership development programs on the intent to stay of high-potential employees in the Biotech Industry.* [Unpublished doctoral dissertation, Southeastern University]. FireScholars. https://firescholars.seu.edu/org-lead/34

Guay, R. P., Oh, I., Choi, D., Mitchell, M. S., Mount, M. K., & Shin, K. (2013). The interactive effect of conscientiousness and agreeableness on job performance dimensions in South Korea. *International Journal of Selection & Assessment*, *21*(2), 233–238. https://doi.org/10.1111/ijsa.12033

Hair, J. F., Babin, B. J., Black, W. C., & Anderson, R. E. (2019). *Multivariate data analysis.* Cengage.

Hair, J. F., Tomas, G., Hult, M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage.

Halfhill, T., Nielsen, T. M., Sundstrom, E., & Weilbaecher, A. (2005). Group personality composition and performance in military service teams. *Military Psychology*, *17*(1), 41–54. https://doi.org/10.1207/s15327876mp1701_4

Hall, C. W., Kauffmann, P. J., Wuensch, K. L., Swart, W. E., DeUrquidi, K. A., Griffin, O. H., & Duncan, C. S. (2015). Aptitude and personality traits in retention of engineering students. *Journal of Engineering Education*, *104*(2), 167–188. https://doi-org/10.1002/jee.20072

Han, K. H., Hung, K. C., Cheng, Y. S., Chung, W., Sun, C. K., & Kao, C. C. (2023). Factors affecting spiritual care competency of mental health nurses: A questionnaire-based cross-sectional study. *BMC Nursing*, *22*(1). https://doi.org/10.1186/s12912-023-01302-z

Harding, T. S. (1932, January 1). *Eugenics for cows but not for humans.* Scientific American. https://www.scientificamerican.com/article/eugenics-for-cows-but-not-for-human/

Harper, J. (2022). Military preparing for new era of Explosive Ordnance Disposal. *National Defense*, *818*, 24–25. https://www.nationaldefensemagazine.org/articles/2021/12/24/military-preparing-for-new-era-of-explosive-ordnance-disposal

Harré, R. (2021). Personality and public performance. *Journal for the Theory of Social Behaviour*, *51*(2), 293–304. https://doi-org/10.1111/jtsb.12285

Harris-Watson, A. M., Kung, M.-C., Tocci, M. C., Boyce, A. S., Weekley, J. A., Guenole, N., & Carter, N. T. (2022). The interaction between conscientiousness and general mental ability: Support for a compensatory interaction in task performance. *Journal of Business & Psychology*, *37*(4), 855–871. https://doi.org/10.1007/s10869-021-09780-1

Harty, P. S., Friedl, K. E., Nindl, B. C., Harry, J. R., Vellers, H. L., & Tinsley, G. M. (2022). Military body composition standards and physical performance: Historical perspectives and future directions. *Journal of Strength and Conditioning Research*, *36*(12), 3551–3561. https://doi.org/10.1519/JSC.0000000000004142

Hasel, M. C. (2013). A question of context: the influence of trust on leadership effectiveness during crisis. *M@n@gement*, *16*(3), 264–293. https://doi.org/10.3917/mana.163.0264

Held, J. D., Hezlett, S. A., Johnson, J. W., McCloy, R. A., Drasgow, F., & Salas, E. (2014). *Introductory guide for conducting ASVAB validation/standards studies in the U. S. Navy* (Technial Report No. 15-1). Navy Personnel Research, Studies, and Technology.

Hellwig, S., & Schulze, R. (2023). Differential relations between facets of agreeableness and ability-based measures of strategic emotional intelligence. *Journal of Individual Differences*, *44*(2), 134–141. https://doi.org/10.1027/1614-0001/a000388

Hergenhahn, B. R., & Henley, T. B. (2013). *An introduction to the history of psychology* (7th ed.). Wadsworth Cengage Learning.

Herzog, S., Nichter, B., Hill, M. L., Norman, S. B., & Pietrzak, R. H. (2022). Factors associated with remission of suicidal thoughts and behaviors in U.S. military veterans with a history of suicide attempt. *Journal of Psychiatric Research*, *149*, 62–67. https://doi.org/10.1016/j.jpsychires.2022.02.021

Hirsch, P. B. (2021). Beyond the first nudge: Behavioral science in corporate practice. *Journal of Business Strategy*, *42*(3), 215–218. https://doi.org/10.1108/JBS-02-2021-0023

Hisler, G. C., Krizan, Z., DeHart, T., & Wright, A. G. C. (2020). Neuroticism as the intensity, reactivity, and variability in day-to-day affect. *Journal of Research in Personality*, *87*. https://doi.org/10.1016/j.jrp.2020.103964

Hjortskov, M., Jacobsen, C. B., & Kjeldsen, A. M. (2023). Choir of believers? Experimental and longitudinal evidence on survey participation, response bias, and public service motivation. *International Public Management Journal*, *26*(2), 281–304. https://doi.org/10.1080/10967494.2023.2166635

Hogan, J., & Foster, J. (2013). Multifaceted personality predictors of workplace safety performance: More than conscientiousness. *Human Performance*, *26*(1), 20–43. https://doi.org/10.1080/08959285.2012.736899

Hogan, J., & Hogan, R. (1989). Noncognitive predictors of performance during Explosive Ordnance Disposal training. *Military Psychology*, *1*(3), 117–133. https://doi.org/10.1207/s15327876mp0103_1

Hoglin, P. J., & Barton, N. (2015). First-term attrition of military personnel in the Australian Defence Force. *Armed Forces & Society*, *41*(1), 43–68. https://doi.org/10.1177/0095327X13494743

Hook, J. N., Hall, T. W., Davis, D. E., Van Tongeren, D. R., & Conner, M. (2021). The Enneagram: A systematic review of the literature and directions for future research. *Journal of Clinical Psychology*, *77*(4), 865–883. https://doi.org/10.1002/jclp.23097

Hough, L. M., Eaton, N. K., Dunnette, M. D., Kamp, J. D., & McCloy, R. A. (1990). Criterion-related validities of personality constructs and the effect of response distortion on those validities. *Journal of Applied Psychology*, *75*(5), 581–595. https://doi.org/10.1037/0021-9010.75.5.581

Huang, J., Wang, X., Li, W., & An, Y. (2019). The relationship between conscientiousness and posttraumatic stress disorder among young Chinese firefighters: The mediating effect of perceived social support. *Psychiatry Research*, *273*, 450–455. https://doi.org/10.1016/j.psychres.2019.01.053

Huang, L., Gursoy, D., & Xu, H. (2014). Impact of personality traits and involvement on prior knowledge. *Annals of Tourism Research*, *48*, 42–57. https://doi.org/10.1016/j.annals.2014.05.010

Huijzer, R., Jeronimus, B. F., Reehoorn, A., Blaauw, F. J., Baatenburg de Jong, M., de Jonge, P., & den Hartigh, R. J. R. (2022). Personality traits of special forces operators: Comparing commandos, candidates, and controls. *Sport, Exercise, and Performance Psychology*, *11*(3), 369–381. https://doi.org/10.1037/spy0000296.supp (Supplemental)

Hunter, S. T., & Cushenbery, L. (2015). Is being a jerk necessary for originality? Examining the role of disagreeableness in the sharing and utilization of original ideas. *Journal of Business and Psychology*, *30*(4), 621–639. https://doi.org/10.1007/s10869-014-9386-1

Huo, M. L., & Jiang, Z. (2023). Work–life conflict and job performance: The mediating role of employee wellbeing and the moderating role of trait extraversion. *Personality and Individual Differences*, *205*. https://doi.org/10.1016/j.paid.2023.112109

Icekson, T., Kaplan, O., & Slobodin, O. (2020). Does optimism predict academic performance? Exploring the moderating roles of conscientiousness and gender. *Studies in Higher Education*, *45*(3), 635–647. https://doi.org/10.1080/03075079.2018.1564257

Iversen, Z. A., Almagor Tikotzki, M., & Kurman, J. (2023). Psychological resilience: Predictors and measurement among Israel Defense Force combat officer candidates. *Military Psychology: The Official Journal of the Division of Military Psychology, American Psychological Association*, *35*(6), 493–506. https://doi.org/10.1080/08995605.2022.2127986

Jackson, C. E., Ciarleglio, M. M., Aslan, M., Marx, B. P., Ko, J., Concato, J., Proctor, S. P., & Vasterling, J. J. (2021). Associations among increases in posttraumatic stress symptoms, neurocognitive performance, and long-term functional outcomes in US Iraq War Veterans. *Journal of Traumatic Stress*, *34*(3), 628–640. https://doi.org/10.1002/jts.22663

Jackson, D., Michaelides, G., Dewberry, C., Jones, A., Toms, S., Schwencke, B., & Yang, W.-N. (2022). Uncertainty about rater variance and small dimension effects impact reliability in supervisor ratings. *Human Performance.* https://doi.org/10.1080/08959285.2022.2111433

Jackson, J. J., Thoemmes, F., Jonkmann, K., Lüdtke, O., & Trautwein, U. (2012). Military training and personality trait development: Does the military make the man, or does the man make the military? *Psychological Science, 23*(3), 270–277. https://doi-org/10.1177/0956797611423545

Jangjeet, Joshi, H. L., & Khokhar, C. P. (2019). Physical health or mental health problems in relations to personality and temperament. *IAHRW International Journal of Social Sciences Review*, *7*(5), 1188–1192. https://www.proquest.com/openview/fd3d2436a46ce8d09a53487b9bfeea8f/1?pq-origsite=gscholar&cbl=5347679

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory (BFI).* [Database Record]. PsycTests. https://doi.org/10.1037/t07550-000

John Bernardin, H., Thomason, S., Ronald Buckley, M., & Kane, J. S. (2016). Rater rating-level bias and accuracy in performance appraisals: The impact of rater personality, performance management competence, and rater accountability. *Human Resource Management*, *55*(2), 321–340. https://doi.org/10.1002/hrm.21678

Johnson, D. (2021). Russia's deceptive nuclear policy. *Survival (00396338), 63*(3), 123–141. https://doi.org/10.1080/00396338.2021.1930410

Johnson, D. C., Polusny, M. A., Erbes, C. R., King, D., King, L., Litz, B. T., Schnurr, P. P., Friedman, M., Pietrzak, R. H., & Southwick, S. M. (2011). Development and initial validation of the response to stressful experiences scale. *Military Medicine, 176*(2), 161–169. https://doi.org/10.7205/MILMED-D-10-00258

Johnson, J. (2020). *Three views for explaining and resolving the recruitment and retention challenges of the Explosive Ordnance Disposal (EOD) career field.* Air Force Institute of Technology. https://apps.dtic.mil/sti/citations/AD1100854

Joint Publication 3-42. (2022, September 14). *Joint Explosive Ordnance Disposal.* https://www.jcs.mil/Doctrine/Joint-Doctrine-Pubs/3-0-Operations-Series/

Judge, T. A., Ilies, R., Bono, J. E., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, *87*(4). https://doi.org/10.1037/0021-9010.87.4.765

Judge, T. A., Rodell, J. B., Klinger, R. L., Simon, L. S., & Crawford, E. R. (2013). Hierarchical representations of the five-factor model of personality in predicting job performance: Integrating three organizing frameworks with two theoretical perspectives. *Journal of Applied Psychology*, *98*(6). http://dx.doi.org/10.1037/a0033901

Judge, T. A., & Zapata, C. P. (2015). The person-situation debate revisited: effect of situation strength and trait activation on the validity of the big five personality traits in predicting job performance. *Academy of Management Journal*, *58*(4), 1149–1170. https://doi.org/10.5465/amj.2010.0837

Junça-Silva, A., & Silva, D. (2022). How is the life without unicorns? A within-individual study on the relationship between uncertainty and mental health indicators: The moderating role of neuroticism. *Personality and Individual Differences*, *188*. https://doi-org/10.1016/j.paid.2021.111462

Jung, C. (1968). *Analytical psychology: Its theory and practice: The Tavistock Lectures.* Pantheon Books.

Kaplan, R. D., & Watts, C. (2022). The next frontier in great power rivalry: Competing with Russia and China in cyberspace. *Orbis*, *66*(4), 526–535. https://doi.org/10.1016/j.orbis.2022.08.007

Keene, S. D., & Halpin, S. M. (1993). *How well did the combat training centers prepare units for combat? Questionnaire results from Desert Storm participants (Technical Report 970).* U.S. Army Research Institute for the Behavioral and Social Sciences. https://apps.dtic.mil/sti/citations/ADA260038

Killgore, W. D. S., Grandner, M. A., Tubbs, A. S., Fernandez, F. X., Doty, T. J., Capaldi, V. F., II., & Dailey, N. S. (2022). Sleep loss suicidal ideation: The role of trait extraversion. *Frontiers in Behavioral Neuroscience*, *16*. https://doi.org/10.3389/fnbeh.2022.886836

Kim, K. Y., Messersmith, J. G., Pieper, J. R., Baik, K., & Fu, S. (2023). High performance work systems and employee mental health: The roles of psychological empowerment, work role overload, and organizational identification. *Human Resource Management*, *62*(6), 791–810. https://doi.org/10.1002/hrm.22160

Kirby, T., Kaiser, C., & Major, B. (2015). Insidious procedures: Diversity awards legitimize unfair organizational practices. *Social Justice Research*, *28*(2), 169–186. https://doi.org/10.1007/s11211-015-0240-z

Kirkendall, C., Bynum, B., Nesbitt, C., & Hughes, M. (2020). Validation of the TAPAS for predicting in-unit soldier outcomes. *Military Psychology*, *32*(1), 24–35. https://doi.org/10.1080/08995605.2019.1652484

Kirkpatrick, S. A., & Locke, E. A. (1991). Leadership: Do traits matter? *The Executive*, *5*(2), 48–60. https://doi.org/10.5465/ame.1991.4274679

Klafehn, J., Ezzo, C., Anderson, L., Taylor, W., Ingerick, M., & Ford, L. (2019). *Criterion development for evaluation of the cross-cultural competence assessment system (3CAS)* [Unpublished memorandum]. U.S. Army Research Institute for the Behavioral and Social Sciences

Klee, S., & Renner, K.-H. (2016). Beyond pride and prejudices: An empirical investigation of German Armed Forces soldiers' personality traits. *Personality and Individual Differences*, *88*, 261–266. https://doi.org/10.1016/j.paid.2015.09.020

Klinger-König, J., Hertel, J., Terock, J., Völzke, H., Van der Auwera, S., & Grabe, H. J. (2018). Predicting physical and mental health symptoms: Additive and interactive effects of difficulty identifying feelings, neuroticism and extraversion. *Journal of Psychosomatic Research*, *115*, 14–23. https://doi.org/10.1016/j.jpsychores.2018.10.003

Knapp, D. J. (2006). The U. S. Joint-Service Job Performance Measurement Project. In W. Bennet Jr., C. E. Lance, & D. J. Woehr (Eds.), *Performance measurement: Current perspectives and future challenges* (pp. 113–140). Erlbaum.

Knapp, D. J., & Heffner, T. S. (Eds.). (2010). *Expanded Enlistment Eligibility Metrics (EEEM): Recommendations on a non-cognitive screen for new soldier selection* (Technical Report 1267). United States Army Research Institute for the Behavioral and Social Sciences. https://apps.dtic.mil/sti/pdfs/ADA523962.pdf

Knapp, D. J., Heggestad, E. D., & Young, M. C. (Eds.). (2004). *Understanding and improving the Assessment of Individual Motivation (AIM) in the Army's GED Plus Program.* United States Army Research Institute for the Behavioral and Social Sciences. https://apps.dtic.mil/sti/pdfs/ADA420227.pdf

Knapp, D. J., & Kirkendall, C. D. (2020). *Tier one performance screen initial operation test and evaluation* (Technical Report 1380). United States Army Research Institute for Behavioral and Social Sciences. https://apps.dtic.mil/sti/pdfs/AD1091944.pdf

Knapp, D. J., & Rumsey, M. G. (2023). Introduction to the special issue on criterion measurement. *Military Psychology*, *35*(4), 273–282. https://doi.org/10.1080/08995605.2022.2050158

Knight, C., McNaughton-Cassill, M., Morissette, S., & Weston, R. (2023). Childhood trauma and neuroticism: Implications for mental health in Mexican Americans. *Journal of Latinos & Education*, *22*(1), 229–239. https://doi.org/10.1080/15348431.2020.1740094

Kotov, R., Gamez, W., Schmidt, F., & Watson, D. (2010). Linking "big" personality traits to anxiety, depressive, and substance use disorders: A metaanalysis. *Psychological Bulletin*, *136*(5), 768–821. https://doi.org/10.1037/a0020327

Kovacs, K., & Pléh, C. (2023). William Stern: The relevance of his program of "Differential Psychology" for contemporary intelligence measurement and research. *Journal of Intelligence, 11*(3), 41. https://doi.org/10.3390/jintelligence11030041

Kratz, J. (2022, March 10). *Contact, brawls, and the chambering: The combat action ribbon.* National Archives. https://prologue.blogs.archives.gov/2022/03/10/contact-brawls-and-chambering-the-combat-action-ribbon/#:~:text=Louis%2C%20Missouri.,are%20assigned%20a%20combat%20role.

Lall-Trail, S. F., Salter, N. P., & Xu, X. (2023). How personality relates to attitudes toward diversity and workplace diversity initiatives. *Personality and Social Psychology Bulletin*, *49*(1), 66–80. https://doi.org/10.1177/01461672211057755

Landers, R. N., & Lounsbury, J. W. (2006). An investigation of Big Five and narrow personality traits in relation to internet usage. *Computers in Human Behavior*, *22*(2), 283–293. https://doi.org/10.1016/j.chb.2004.06.001

Lang, J. W. B., Kersting, M., & Beauducel, A. (2016). Hierarchies of factor solutions in the intelligence domain: Applying methodology from personality psychology to gain insights into the nature of intelligence. *Learning and Individual Differences*, *47*, 37–50. https://doi.org/10.1016/j.lindif.2015.12.003

Le, H., Robbins, S. B., Holland, E., Oh, I.-S., Ilies, R., & Westrick, P. (2011). Too much of a good thing: Curvilinear relationships between personality traits and job performance. *Journal of Applied Psychology*, *96*(1). https://doi.org/10.1037/a0021016

Leslie, C. (2014, September 24). *AF EOD mission completed in Afghanistan.* Air Force. https://www.af.mil/News/Article-Display/Article/500089/af-eod-mission-completed-in-afghanistan/

Li, K., Wang, T. K., Yu, A., & Chen, J. H. (2022). The influence of mutual assistance of construction workers with different personality traits on team safety. *Computational Intelligence & Neuroscience*, *16*, 1–16. https://doi.org/10.1155/2022/1396368

Lievens, F., Ones, D. S., & Dilchert, S. (2009). Personality scale validities increase throughout medical school. *Journal of Applied Psychology*, *94*, 1514–1535. http://dx.doi.org/10.1037/a0016137

Lim, B. C., & Ployhart, R. E. (2004). Transformational leadership: Relations to the Five-Factor Model and team performance in typical and maximum contexts. *Journal of Applied Psychology*, *89*(4), 610–621. https://doi.org/10.1037/0021-9010.89.4.610

Linnemann, P., Berger, K., & Teismann, H. (2022). Associations between outcome resilience and sociodemographic factors, childhood trauma, personality dimensions and self-rated health in middle-aged adults. *International Journal of Behavioral Medicine*, *29*(6), 796–806. https://doi.org/10.1007/s12529-022-10061-1

Liu, N., Zhou, L., Li, A. M., Hui, Q.-S., Zhou, Y. R., & Zhang, Y. Y. (2022). "Neuroticism and risk-taking: The role of competition with a former winner or loser": Corrigendum. *Personality and Individual Differences*, *187*. https://doi.org/10.1016/j.paid.2021.111397

Liu, T., Liu, Z., Zhang, L., & Mu, S. (2022). Dispositional mindfulness mediates the relationship between conscientiousness and mental health-related issues in adolescents during the COVID-19 pandemic. *Personality and Individual Differences*, *184*. https://doi.org/10.1016/j.paid.2021.111223

Lloyd, J. B. (2022). Seeking truth in personality science: Reconciling trait theory and psychological type. *Mental Health, Religion, & Culture*, *25*(9), 817–828. https://doi.org/10.1080/13674676.2022.2158794

Loberg, L., Nüesch, S., & Foege, J. N. (2021). Forced distribution rating systems and team collaboration. *Journal of Economic Behavior and Organization*, 188, 18–35. https://doi.org/10.1016/j.jebo.2021.04.035

Lord, R. G., De Vader, C., & Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application of validity generalization procedures. *Journal of Applied Psychology*, *71*(3), 402–410. https://doi.org/10.1037/0021-9010.71.3.402

Lu, A. C. C., & Gursoy, D. (2016). Impact of job burnout on satisfaction and turnover intention: Do generational differences matter? *Journal of Hospitality & Tourism Research*, *40*(2), 210–235. https://doi.org/10.1177/1096348013495696

Lytell, M. C., Robson, S., Schulker, D., McCausland, T. C., Matthews, M., Mariano, L. T., & Robbert, A. A. (2018). *Training success for U.S. Air Force special operations and combat support specialties.* (Technical Report). RAND Corporation.

Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, *1*(1), 3–30. https://doi.org/10.1111/j.1754-9434.2007.0002.x

Macht, G. A., & Nembhard, D. A. (2015). Measures and models of personality and their effects on communication and team performance. *International Journal of Industrial Ergonomics*, *49*, 78–89. https://doi.org/10.1016/j.ergon.2015.05.006

Maestripieri, D., & Boutwell, B. B. (2022). Human nature and personality variation: Reconnecting evolutionary psychology with the science of individual differences. *Neuroscience and Biobehavioral Reviews*, *143*. https://doi.org/10.1016/j.neubiorev.2022.104946

Maier, M. H. (1993). *Military aptitude testing: The past fifty years.* Defense Manpower Data Center Personnel Testing Division.

Manacapilli, T., Matthies, C. F., Miller, L. W., Howe, P., Perez, P. J., Hardison, C. M., Massey, H. G., Greenberg, J., Beighley, C., & Sims, C. S. (2012). *Reducing attrition in selected Air Force training pipelines* (Technical Report). RAND Corporation.

Mansikka, H., Virtanen, K., Uggeldahl, V., & Harris, D. (2021). Team situation awareness accuracy measurement technique for simulated air combat - Curvilinear relationship between awareness and performance. *Applied Ergonomics*, *96*. https://doi.org/10.1016/j.apergo.2021.103473

Marica, S., & Maftei, A. (2021). The role of personality traits in developing resilience. *Journal of Communication & Behavioural Sciences*, *2*(2), 13–20. https://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=151794914&site=eds-live&scope=site

Martin, J. S., Jaeggi, A. V., & Koski, S. E. (2023). The social evolution of individual differences: Future directions for a comparative science of personality in social behavior. *Neuroscience and Biobehavioral Reviews*, *144*. https://doi-org/10.1016/j.neubiorev.2022.104980

Martin, J. S., Mashburn, C. A., & Engle, R. W. (2020). Improving the validity of the Armed Service Vocational Aptitude Battery with measures of attention control. *Journal of Applied Research in Memory and Cognition*, *9*(3), 323–335. https://doi.org/10.1037/h0101851.supp (Supplemental)

Maslow, A. H. (1943). *A theory of human motivation.* Wilder Publications.

Masood, A., Rafique, R., Qaisar, S., & Musarat, R. (2017). Personality traits as predictor of job performance in police officers. *Bahria Journal of Professional Psychology*, *16*(2), 44–58. https://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=131765957&site=eds-live&scope=site

Matthews, M. D., Eid, J., Johnsen, B. H., & Boe, O. C. (2011). A comparison of expert ratings and self-assessments of situation awareness during a combat fatigue course. *Military Psychology*, *23*(2), 125–136. https://doi.org/10.1080/08995605.2011.550222

McAdams, D. P. (1997). A conceptual history of personality psychology. In R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology*. (pp. 3–39). Academic Press. https://doi.org/10.1016/B978-012134645-4/50002-0

McCrae, R. R., & Costa, P. T., Jr. (1985). Updating Norman's "Adequate Taxonomy": Intelligence and personality dimensions in natural language and in questionnaires. *Journal of Personality & Social Psychology*, *49*(3), 710–721. https://doi.org/10.1037/0022-3514.49.3.710

McCrae, R. R., & Greenberg, D. M. (2014). Openness to experience. In D. K. Simonton (Ed.). *The Wiley handbook of genius* (pp. 222–243). John Wiley & Sons.

McCredie, H. (2017). Pioneers and landmarks in intelligence testing - identifying those with learning difficulties: Binet, Simon & their immediate successors. *Assessment & Development Matters*, *9*(3), 26–30. https://doi.org/10.53841/bpsadm.2017.9.3.26

McGinley, J., Weese, T., Thompson, J., & Leahy, K. (2011). Intelligence community assessment: Generational differences in workplace motivation. *American Intelligence Journal*, *29*(1), 80–87. http://www.jstor.org/stable/26201923

McMahon, C. J., & Bernard, C. J. (2019). Storm clouds on the horizon: Challenges and recommendations for military recruiting and retention. *Naval War College Review*, *72*(3), 84–100. https://digital-commons.usnwc.edu/nwc-review/vol72/iss3/7

Meagher, B. R., & Cheadle, A. D. (2020). Distant from others, but close to home: The relationship between home attachment and mental health during COVID-19. *Journal of Environmental Psychology*, *72*. https://doi.org/10.1016/j.jenvp.2020.101516

Meléndez, J. C., Satorres, E., & Delhom, I. (2020). Personality and coping What traits predict adaptive strategies? *Anales de Psicología*, *36*(1), 39–45. https://doi.org/10.6018/analesps.349591

Melis, A., & Nawaz, T. (2023). The impact of CEOs' personal traits on organisational performance: Evidence from faith-based charity organisations. *Journal of Business Ethics*, *190*, 919–939. https://doi.org/10.1007/s10551-023-05412-1

Mert, I. S., & Köksal, K. (2022). The role of coast guard courage in the relationship between personality and organizational commitment. *Military Psychology*, *34*(6), 706–721. https://doi.org/10.1080/08995605.2022.2057788

Michałowska-Sawczyn, M., Niewczas, M., Król, P., Czarny, W., Rzeszutko, A., Chmielowiec, K., Chmielowiec, J., Grzywacz, A., Humińska-Lisowska, K., Lachowicz, M., Trybek, G., Kaczmarczyk, M., Wilk, M., Ficek, K., Maculewicz, E., Proia, P., & Cięszczyk, P. (2019). Associations between the dopamine D4 receptor gene polymorphisms and personality traits in elite athletes. *Biology of Sport*, *36*(4), 365–372. https://doi.org/10.5114/biolsport.2019.85457

Mogul, R., Raine, A., Berlinger, J., Wilkinson, P., Chowdhury, M., & Meyer, M. (2023, October 15). *Israel-Hamas war rages as Palestinian death toll rises in Gaza.* CNN. https://www.cnn.com/middleeast/live-news/israel-news-hamas-war-10-15-23/index.html

Moon, S. H., Scullen, S. E., & Latham, G. P. (2016). Precarious curve ahead: The effects of forced distribution rating systems on job performance. *Human Resource Management Review*, *26*(2), 166–179. https://doi-org/10.1016/j.hrmr.2015.12.002

Moreland, M. L., Rickman, S. R. M., & Yalch, M. M. (2023). Influence of trauma and personality on posttraumatic cognitions in military veterans. *Traumatology.* https://doi-org/10.1037/trm0000469.supp (Supplemental)

Mount, M., Ilies, R., & Johnson, E. (2006). Relationship of personality traits and counterproductive work behaviors: The mediating effects of job satisfaction. *Personnel Psychology*, *59*(3). https://doi.org/10.1111/j.1744-6570.2006.00048.x

Mouratille, D., Amadieu, F., & Matton, N. (2022). A meta-analysis on air traffic controllers selection: *Cognitive and non-cognitive predictors. Journal of Vocational Behavior*, *138*, 1–20. https://doi-org/10.1016/j.jvb.2022.103769

Mourelatos, E., Giannakopoulos, N., & Tzagarakis, M. (2022). Personality traits and performance in online labour markets. *Behaviour & Information Technology*, *41*(3), 468–484. https://doi.org/10.1080/0144929X.2020.1815840

Moyle, P., & Hackston, J. (2018). Personality assessment for employee development: Ivory tower or real world? *Journal of Personality Assessment*, *100*(5), 507–517. https://doi.org/10.1080/00223891.2018.1481078

Mueller, S., Ram, N., Conroy, D. E., Pincus, A. L., Gerstorf, D., Wagner, J., & Wrzus, C. (2019). Happy like a fish in water? The role of personality-situation fit for momentary happiness in social interactions across the adult lifespan. *European Journal of Personality*, *33*(3), 298–316. https://doi.org/10.1002/per.2198

Mülberger, A. (2017). Mental association: Testing individual differences before Binet. *Journal of the History of the Behavioral Sciences*, *53*(2), 176–198. https://doi-org/10.1002/jhbs.21850

Murmu, S., & Neelam, N. (2022). Impact of emotional intelligence and personality traits on managing team performance in virtual interface. *Asian Journal of Business Ethics*, *11*(Suppl 1), 33–53. https://doi.org/10.1007/s13520-022-00154-1

Myers, I. B., & McCaulley, M. H. (1985). *Manual: A guide to the development and use of the Myers-Briggs Type Indicator*. Consulting Psychologists Press.

Na, P. J., Montalvo-Ortiz, J., Petrakis, I., Krystal, J. H., Polimanti, R., Gelernter, J., & Pietrzak, R. H. (2023). Trajectories of alcohol consumption in U.S. military veterans: Results from a 10-year population-based longitudinal study. *Drug and Alcohol Dependence*, *246*. https://doi.org/10.1016/j.drugalcdep.2023.109833

Naegele, T., & Gordon, C. (2024, February 12). *New commands, ranks, and more: Big changes for Air Force & Space Force.* Air and Space Forces Magazine. https://www.airandspaceforces.com/big-changes-air-force-space-force/

Nandkeolyar, A. K., Bagger, J., & Ekkirala, S. (2022). Damned if she does, damned if she doesn't: The interactive effects of gender and agreeableness on performance evaluation. *Journal of Business Research*, *143*, 62–71. https://doi.org/10.1016/j.jbusres.2022.01.066

Nichols, L. T. (2019). Toward an integral, professional-public sociology: The example of Gordon W. Allport. *American Sociologist*, *50*(2), 315–332. https://doi.org/10.1007/s12108-019-9409-5

Nikitin, J., & Freund, A. M. (2015). The indirect nature of social motives: The relation of social approach and avoidance motives with likeability via extraversion and agreeableness. *Journal of Personality*, *83*(1), 97–105. https://doi-org/10.1111/jopy.12086

Niziurski, J. A., & Berntsen, D. (2018). A prospective study of homesickness in soldiers during military deployment. *Personality and Individual Differences*, *120*, 81–86. https://doi.org/10.1016/j.paid.2017.08.028

Norman, W. T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. *Journal of Abnormal & Social Psychology*, *66*(6), 574–583. https://doi.org/10.1037/h0040291

Nye, C. D., Ma, J., & Wee, S. (2022). Cognitive ability and job performance: Meta-analytic evidence for the validity of narrow cognitive abilities. *Journal of Business and Psychology*, *37*, 1119–1139. https://doi.org/10.1007/s10869-022-09796-1

Nye, C. D., White, L. A., Drasgow, F., Prasad, J., Chernyshenko, O. S., & Stark, S. (2020). Examining personality for the selection and classification of soldiers: Validity and differential validity across jobs. *Military Psychology*, *32*(1), 60–70. https://doi.org/10.1080/08995605.2019.1652482

Nye, C. D., White, L. A., Horgen, K., Drasgow, F., Stark, S., & Chernyshenko, O. S. (2020). Predictors of attitudes and performance in U.S. Army recruiters: Does personality matter? *Military Psychology*, *32*(1), 81–90. https://doi.org/10.1080/08995605.2019.1652486

Ohme, M., & Zacher, H. (2015). Job performance ratings: The relative importance of mental ability, conscientiousness, and career adaptability. *Journal of Vocational Behavior*, *87*, 161–170. https://doi.org/10.1016/j.jvb.2015.01.003

O'Leary, R. S., & Pulakos, E. D. (2017). Defining and measuring results of workplace behavior. In J. L. Farr & N. T. Tippins (Eds.), *Handbook of employee selection* (2nd ed., pp. 509–529). Routledge.

Olivo, G., Gour, S., & Schiöth, H. B. (2019). Low neuroticism and cognitive performance are differently associated to overweight and obesity: A cross-sectional and longitudinal UK Biobank study. *Psychoneuroendocrinology*, *101*, 167–174. https://doi.org/10.1016/j.psyneuen.2018.11.014

Ones, D. S., Dilchert, S., Viswesvaran, C., & Judge, T. A. (2007). In support of personality assessment in organizational settings. *Personnel Psychology*, *60*, 995–1027. https://doi.org/10.1111/j.1744-6570.2007.00099.x

Orhan, E. (2022). The effects of the Russia - Ukraine war on global trade. *Journal of International Trade, Logistics & Law*, *8*(1), 141–146. http://jital.org/index.php/jital/article/view/277/pdf_150

O'Shea, P. G., Goodwin, G. F., Driskell, J. E., Salas, E., & Ardison, S. (2009). The many faces of commitment: Facet-level links to performance in military contexts. *Military Psychology*, *21*(1), 5–23. https://doi.org/10.1080/08995600802565595

Oshio, A., Taku, K., Hirano, M., & Saeed, G. (2018). Resilience and Big Five personality traits: A meta-analysis. *Personality and Individual Differences*, *127*, 54–60. https://doi.org/10.1016/j.paid.2018.01.048

Otto, J. L., Smolenski, D. J., Stewart, L., Workman, D. E., Kincaid, M., Belsher, B. E., Bush, N., & Evatt, D. P. (2021). Explosive ordnance disposal personnel in the U.S. military have higher risk of insomnia and post-traumatic stress disorder: A large retrospective cohort study. *Annals of Epidemiology*, *57*, 40–45. https://doi.org/10.1016/j.annepidem.2021.02.001

Pandita, K. N. (2023, February 23). *Putin admits Russia cannot match combined war machine of U.S. & Europe. Says, then there are nukes!* EurAsian Times. https://eurasiantimes.com/putin-admits-russia-cannot-match-combined-war-machine-of-us/

Park, H. H., Zhou, Y., & Choi, M. (2018). When are individuals innovative? Three-way interaction among openness to experience, innovative climate, and job complexity. *Journal of Personnel Psychology*, *17*(1), 1–11. https://doi.org/10.1027/1866-5888/a000190

Pasley, M. C. (2023). *Focus group results.* [Unpublished research paper]. Southeastern University.

Paul, A. M. (2005). *The cult of personality testing*. Free Press.

Pearson, K. (1914). *The life, letters and labours of Francis Galton* (Vol. 1.) Cambridge University Press.

Person, E., De Jong, D., Robinson, D., Chesnut, S., & Messick, D. (2021). Leadership traits of superintendents in a rural, midwest state: Perceptions of school board presidents and superintendents. *AASA Journal of Scholarship & Practice*, *17*(4), 42–59. https://www.researchgate.net/publication/348814206_Leadership_Traits_of_Superintendents_in_a_Rural_Midwest_State_Perceptions_of_School_Board_Presidents_and_Superintendents

Peters, E. M., Bowen, R., & Balbuena, L. (2020). Mood instability and trait anxiety as distinct components of Eysenckian neuroticism with differential relations to impulsivity and risk taking. *Journal of Personality Assessment*, *102*(3), 337–347. https://doi.org/10.1080/00223891.2019.1569528

Piotrowski, C. (2021). Personality psychology research: A bibliometric analysis of investigatory domain. *Journal of Projective Psychology & Mental Health*, *28*(1), 47–52. https://d1wqtxts1xzle7.cloudfront.net/66783485/Personality_Psychology..._Bibliometric_analysis_the_field-libre.pdf?1620005216=&response-content-disposition=inline%3B+filename%3DPersonality_Psychology_Research_A_Biblio.pdf&Expires=1676982223&Signature=JmVC4j2U4yXdAjLOEmoHsgRibGiSdmEYOcTLebVNurjJvwhWtEYAG55eZuustAXgfyxTwb7YdKfAio8DxGfHkTTvpeDzdc5q~wXOT4c6D5VYQM7SHu7yPsTGGhSonwSXotrPMXsskyazSSWb7KbXP7zjY02Vv3Xy4Z2YAPlhTMGlznSLJnOAdKMaVYdKgHqc17ey5loeO5dORohkedKuNEHHsaQzpn81q2OYzajesmiyZphVcZSkVjs3oXR7yiqkDU2b4MpNa6qUPV9kF~e39cE0DSrTP-qAo2DBJ1tTQmNstWsy7hs8GlDZer3vk3Yn-IbJolUlEZEGxgS9XqN5Jw__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA

Plouffe, R. A., Nazarov, A., Forchuk, C. A., Gervasio, J., Le, T., Liu, J. J. W., Nouri, M. S., Trahair, C., Walker, D. L., & Richardson, J. D. (2023). The roles of personality and resilience in associations between combat experiences and posttraumatic stress disorder among Canadian Armed Forces Veterans. *Personality and Individual Differences*, *206*. https://doi.org/10.1016/j.paid.2023.112141

Pulakos, E. D., Arad, S., Donovan, M. A., & Plamondon, K. E. (2000). Adaptability in the workplace: Development of a taxonomy of adaptive performance. *Journal of Applied Psychology*, *85*(4), 612–624. https://doi.org/10.1037/0021- 9010.85.4.612

Punová, M. (2022). Resilience and personality dispositions of social workers in the Czech Republic. *Practice: Social Work in Action*, *34*(3), 207–222. https://doi.org/10.1080/09503153.2021.2021166

Rahman, I. K., Rosidah, N. S., Faizah, T. A., & Hamidah, R. N. (2023). An investigation of the Five Factor Personality Traits and innovation skills of students in theology education. *International Journal of Education in Mathematics, Science and Technology*, *11*(4), 881–897. https://doi.org/10.46328/ijemst.3512

Randall, R., & Sharples, D. (2012). The impact of rater agreeableness and rating context on the evaluation of poor performance. *Journal of Occupational and Organizational Psychology*, *85*(1), 42–49. https://doi.org/10.1348/2044-8325.002002

Ree, M. J., & Carretta, T. R. (1994). Factor analysis of the ASVAB: Confirming a Vernon-like structure. *Educational & Psychological Measurement*, *54*(2), 459. https://doi.org/10.1177/0013164494054002020

Reizer, A., Harel, T., & Ben-Shalom, U. (2023). Helping others results in helping yourself: How well-being is shaped by agreeableness and perceived team cohesion. *Behavioral Sciences*, *13*(2). https://doi.org/10.3390/bs13020150

Report of Inquiry Addendum. (2021). The Inspector General Department of the Air Force. https://www.af.mil/Portals/1/documents/2021SAF/11_Nov/Disparity_Review_Addendum.pdf

Revelle, W. (2009). Personality structure and measurement: The contributions of Raymond Cattell. *British Journal of Psychology*, *100*(1a), 253–257. https://doi.org/10.1348/000712609X413809

Rice, D. B., & Reed, N. (2022). Supervisor emotional exhaustion and goal-focused leader behavior: The roles of supervisor bottom-line mentality and conscientiousness. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, *41*(12), 8758–8773. https://doi.org/10.1007/s12144-021-01349-8

Ridgway, W. B., Morgan, C. A., III., Picano, J. J., Roland, R. R., & Rabinowitz, Y. G. (2023). Sentence completion test defensiveness and success in US military personnel selection. *Journal of Research in Personality*, *104*. https://doi.org/10.1016/j.jrp.2023.104384

Roberts, R. D., Goff, G. N., Anjoul, F., Kyllonen, P. C., Pallier, G., & Stankov, L. (2000). The Armed Services Vocational Aptitude Battery (ASVAB). *Learning & Individual Differences*, *12*(1), Article 81. https://doi.org/10.1016/S1041-6080(00)00035-2

Rodriguez, D., Patel, R., Bright, A., Gregory, D., & Gowing, M. K. (2002). Developing competency models to promote integrated human resource practices. *Human Resource Management*, *41*(3), 309–324. https://doi.org/10.1002/hrm.10043

Rodríguez-López, A., Balluerka, N., Gorostiaga, A., & Ulacia, I. (2023). Personality traits and job performance among public sector managers: The role of gender. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, *42*(29), 25353–25366. https://doi.org/10.1007/s12144-022-03634-6

Rogers, C. R. (1959). *A theory of therapy, personality, and interpersonal relationships, as developed in the client-centered framework.* McGraw-Hill.

Rollings, J., Micheletta, J., Van Laar, D., & Waller, B. M. (2023). Personality traits predict social network size in older adults. *Personality and Social Psychology Bulletin*, *49*(6), 925–938. https://doi.org/10.1177/01461672221078664

Rose, M. R., Manley, G. G., & Weissmuller, J. J. (2013). Development of two- and three-factor classification models for Air Force Battlefield Airmen (BA) and related AFSs. *Randolph AFB, TX: Air Force Personnel Center Strategic Research and Assessment Branch.* https://apps.dtic.mil/sti/citations/AD1007586

Rotter, J. B. (1954). *Social learning and clinical psychology.* Prentice-Hall.

Rury, J. L. (1988). Race, region, and education: An analysis of Black and White scores on the 1917 Army Alpha Intelligence Test. *Journal of Negro Education*, *57*(1), 51–65. https://doi.org/10.2307/2295276

Russell, T. L., Allen, M., Ford, L., Carretta, T., & Kirkendall, C. (2023). Development of a performance taxonomy for entry-level military occupations. *Military Psychology*, *35*(4), 283–294. https://doi.org/10.1080/08995605.2022.2050163

Russell, T. L., Ingerick, M. J., & Barron, L. G. (2023). Defining occupation-specific performance components for military selection and classification. *Military Psychology*, *35*(4), 295–307. https://doi.org/10.1080/08995605.2022.2065901

Russell, T. L., Rosenthal, D., Paullin, C., & Putka, D. (2006). *Addressing active learning concepts in the navy applicant management information system (NAMIS).* Unpublished report.

Russell, T. L., Sparks, T. E., Campbell, J. P., Handy, K., Ramsberger, P., & Grand, J. A. (2017). Situating ethical behavior in the nomological network of job performance. *Journal of Business and Psychology*, *32*(3), 253–271. https://doi.org/10.1007/s10869-016-9454-9

Rychter, A., Miniszewska, J., & Góra-Tybor, J. (2023). Personality traits favourable for non-adherence to treatment in patients with chronic myeloid leukaemia: Role of type A and D personality. *BioPsychoSocial Medicine*, *17*(1). https://doi.org/10.1186/s13030-023-00261-w

Sackett, P. R., Corte, W. D., & Lievens, F. (2010). Decision aids for addressing the validity-adverse impact trade-off. In J. L. Outtz (Ed.), *Adverse impact: Implications for organizational staffing and high stakes selection.* (pp. 453–472). Routledge/Taylor & Francis Group.

Sackett, P. R., & Walmsley, P. T. (2016). Which personality attributes are most important in the workplace? In G. J. Boyle, J. G. O'Gorman, & G. J. Fogarty (Eds.), *Work and organisational psychology: Research methodology; Assessment and selection; Organisational change and development; Human resource and performance management; Emerging trends: Innovation/globalisation/technology* (Vols. 1-5,pp. 29–50). Sage Publications.

Sacks, D. (2021, July 6). *What Xi Jinping's major speech means for Taiwan.* Council on Foreign Relations. https://www.cfr.org/blog/what-xi-jinpings-major-speech-means-taiwan

Sager, C. E., Russell, T. L., Campbell, R. C., & Ford, L. A. (2005). *Future soldiers: Analysis of entry-level performance requirements and their predictors* (Technical Report 1169). U.S. Army Research Institute for the Behavioral and Social Sciences.

Saks, A. M. (2022). Learning from research on training and organizational performance how to do I-O research with an organizational mindset. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *15*(3), 420–423. https://doi.org/10.1017/iop.2022.36

Salkind, N., & Frey, B. (2020). *Statistics for people who (think they) hate statistics* (7th ed.). Sage.

Sanborn, A. J. B., Yalch, M. M., & Bongar, B. (2022). The effect of military service and trauma exposure on resilience. *Traumatology*, *28*(4), 441–444. https://doi.org/10.1037/trm0000355

Sandhu, T., & Kaur, J. (2021). Neuroticism and mental health in the shadow of COVID-19. *IAHRW International Journal of Social Sciences Review*, *9*(3), 199–204. https://iahrw.org/our-services/journals/

Saxon, L., DiPaula, B., Fox, G. R., Ebert, R., Duhaime, J., Nocera, L., Tran, L., & Sobhani, M. (2020). Continuous measurement of reconnaissance Marines in training with custom smartphone app and watch: Observational cohort study. *JMIR MHealth and UHealth*, *8*(6). https://doi.org/10.2196/14116

Schattke, K., & Marion-Jetten, A. S. (2022). Distinguishing the explicit power motives: Relations with dark personality traits, work behavior, and leadership styles. *Zeitschrift Für Psychologie*, *230*(4), 290–299. https://doi.org/10.1027/2151-2604/a000481 (Supplemental)

Schippers, M. C. (2014). Social loafing tendencies and team performance: The compensating effect of agreeableness and conscientiousness. *Academy of Management Learning & Education*, *13*(1), 62–81. https://doi.org/10.5465/amle.2012.0191

Schippman, J. S., Ash, R. A., Battista, M., Carr, L., Eyde, L. D., Hesketh, B., & Sanchez, I. (2000). The practice of competency modeling. *Personnel Psychology*, *53*(3), 703–740. http://dx.doi.org/10.1111/j.1744-6570.2000.tb00220.x

Schmidt, J. A. (2018). Do trends matter? The effects of dynamic performance trends and personality traits on performance appraisals. *Academy of Management Discoveries*, *4*(4), 449–471. https://doi.org/10.5465/amd.2016.0072

Schogol, J. (2017, August 14). *Where have all the combat vets gone?* Marine Corps Times. https://www.marinecorpstimes.com/news/2017/08/14/where-have-all-the-combat-vets-gone/#:~:text=Since%20the%20U.S.%20drew%20down,for%20Manpower%20and%20Reserve%20Affairs.

Scholarios, D. M., Johnson, C. D., & Zeidner, J. (1994). Selecting predictors for maximizing the classification efficiency of a battery. *Journal of Applied Psychology*, *79*(3), 412–424. https://doi-org/10.1037/0021-9010.79.3.4Z

Secretary of the Air Force Public Affairs. (2021, July 2). *Air Force releases cardio and strength fitness assessment alternatives, new online capabilities.* Air Force. https://www.af.mil/News/Article-Display/Article/2681008/air-force-releases-cardio-and-strength-fitness-assessment-alternatives-new-onli/

Secretary of the Air Force Public Affairs. (2024, February 13). *Allvin: 'This is our time of consequence.'* Air Force. https://www.af.mil/News/Article-Display/Article/3675878/allvin-this-is-our-time-of-consequence/

Segall, D. O. (2004). *Development and evaluation of the 1997 ASVAB score scale* (Tech. Rep. No. 2004-002). Defense Manpower Data Center.

Sellbom, M., Corey, D. M., & Ben-Porath, Y. S. (2021). Examining the validity of the Multidimensional Personality Questionnaire in the assessment of police candidates. *Assessment*, *28*(1), 295–309. https://doi.org/10.1177/1073191119887443

Seppala, N., & Smith, C. (2020). Teaching awards in higher education: a qualitative study of motivation and outcomes. *Studies in Higher Education*, *45*(7), 1398–1412. https://doi.org/10.1080/03075079.2019.1593349

Shen, S., Chen, Z., Qin, X., Zhang, M., & Dai, Q. (2021). Remote and adjacent psychological predictors of early-adulthood resilience: Role of early-life trauma, extraversion, life-events, depression, and social-support. *PLoS ONE*, *16*(6). https://doi.org/10.1371/journal.pone.0251859

Shirom, A. (1976). On some correlates of combat performance. *Administrative Science Quarterly*, *21*(3), 419–432. https://doi.org/10.2307/2391852

Shuffler, M. L., Pavlas, D., & Salas, E. (2012). Teams in the military: A review and emerging challenges. In J. H. Laurence & M. D. Matthews (Eds.), *The Oxford handbook of military psychology* (pp. 282–310). Oxford University Press. https://doi.org/10.1093/oxfordhb/ 9780195399325.013.0106

Skinner, B. F. (1974). *About behaviorism.* Random House.

Skuzińska, A., Plopa, M., & Plopa, W. (2023). Openness to experience, workplace bullying, and employee mental health. *Advances in Cognitive Psychology*, *19*(3), 249–260. https://doi-org/10.5709/acp-0396-z

Smetana, M., & Onderco, M. (2023). From Moscow with a mushroom cloud? Russian public attitudes to the use of nuclear weapons in a conflict with NATO. *Journal of Conflict Resolution*, *67*(2/3), 183–209. https://doi.org/10.1177/00220027221118815

Snow, R. E. (1992). Aptitude theory: Yesterday, today, and tomorrow. *Educational Psychologist*, *27*(1), 5–32. https://doi-org/10.1207/s15326985ep2701_3

Song, Q. C., Wee, S., & Newman, D. A. (2017). Diversity shrinkage: Cross-validating pareto-optimal weights to enhance diversity via hiring practices. *Journal of Applied Psychology*, *102*(12), 1636–1657. https://doi.org/10.1037/apl0000240

Sonnentag, S., & Frese, M. (2001). Performance concepts and performance theory. In S. Sonnentag (Ed.), *Psychological management of individual performance* (Vol. 2, pp. 1–25). Wiley.

Spector, P. E., Fox, S., Penney, L. M., Brursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created equal? *Journal of Vocational Behavior*, *68*(3), 446–460. https://doi.org/10.1016/j.jvb.2005.10.005

Spencer, L. M., & Spencer, S. M. (1993). *Competence at work: Models for superior work performance.* Wiley.

Srikanth, P. B., Thakur, M., & Dust, S. B. (2022). The curvilinear relationship between abusive supervision and performance: The moderating role of conscientiousness and the mediating role of attentiveness. *Journal of Business Research*, *150*, 663–625. https://doi.org/10.1016/j.jbusres.2022.05.073

Stark, S., Chernyshenko, O. S., Drasgow, F., Nye, C. D., White, L. A., Heffner, T., & Farmer, W. L. (2014). From ABLE to TAPAS: A new generation of personality tests to support military selection and classification decisions. *Military Psychology*, *26*(3), 153–164. https://doi.org/10.1037/mil0000044

Staugaard, S. R., Johannessen, K. B., Thomsen, Y. D., Bertelsen, M., & Berntsen, D. (2015). Centrality of positive and negative deployment memories predicts posttraumatic growth in Danish veterans. *Journal of Clinical Psychology*, *71*(4), 362–377. https://doi.org/10.1002/jclp.22142

Stogdill, R. M. (1974). *Handbook of leadership: A survey of theory and research.* Free Press.

Straud, C., McNaughton-Cassill, M., & Fuhrman, R. (2015). The role of the Five Factor Model of personality with proactive coping and preventative coping among college students. *Personality and Individual Differences*, *83*, 60–64. https://doi.org/10.1016/j.paid.2015.03.055

Straus, E., Norman, S. B., Tripp, J. C., Pitts, M., & Pietrzak, R. H. (2019). Purpose in life and conscientiousness protect against the development of suicidal ideation in US Military Veterans with PTSD and MDD: Results from the National Health and Resilience in Veterans Study. *Chronic Stress*, 3. https://doi.org/10.1177/2470547019872172

Sutin, A. R., Luchetti, M., Aschwanden, D., Sesker, A. A., Zhu, X., Stephan, Y., & Terracciano, A. (2023). Five-factor model personality domains and facets associated with markers of cognitive health. *Journal of Individual Differences*, *44*(2), 97–108. https://doi.org/10.1027/1614-0001/a000383 (Supplemental)

Syed, F., Naseer, S., & Bouckenooghe, D. (2021). Unfairness in stressful job environments: The contingent effects of perceived organizational injustice on the relationships between job stress and employee behaviors. *Journal of General Psychology*, *148*(2), 168–191. https://doi.org/10.1080/00221309.2020.1747968

Tchakalian, D. (2022, May 9). *The future of air superiority.* Air and Space Power Centre. https://airpower.airforce.gov.au/blog/BP24698623

Terman, L. M. (1958). *The gifted group at mid-life: Thirty-five years follow-up of the superior child.* Stanford University Press.

Terman, L. M. (1968). *Genetic studies of genius: Mental & physical traits of a thousand gifted children* (Vol. 1). Stanford University Press.

Tewfik, B. A., Kim, D., & Patil, S. V. (2023). The ebb and flow of job engagement: Engagement variability and emotional stability as interactive predictors of job performance. *Journal of Applied Psychology*, *109*(2), 257–282. https://doi.org/10.1037/apl0001129

Thomas, D. A. (2023). Cognitive and non-cognitive pre-college predictor's impact on college graduation [ProQuest Information & Learning]. In *Dissertation Abstracts International Section A: Humanities and Social Sciences* (Vol. 84, Issue 1–A).

Thoresen, C. J., Kaplan, S. A., Barsky, A. P., Warren, C. R., & de Chermont, K. (2003). The affective underpinnings of job perceptions and attitudes: A meta-analytic review and integration. *Psychological Bulletin*, *129*(6). https://doi.org/10.1037/0033-2909.129.6.914

Tian, L., Jiang, S., & Huebner, E. S. (2019). The big two personality traits and adolescents' complete mental health: The mediation role of perceived school stress. *School Psychology*, *34*(1), 32–42. https://doi.org/10.1037/spq0000257

Tirpak, J. (2021, October 8). *USAF's three priorities: China, China, China.* Air and Space Forces. https://www.airandspaceforces.com/article/usaf-three-priorities-china-china-china/

Tisu, L., Lupșa, D., Vîrgă, D., & Rusu, A. (2020). Personality characteristics, job performance and mental health: The mediating role of work engagement. *Personality and Individual Differences*, *153*. https://doi.org/10.1016/j.paid.2019.109644

Tomaka, J., & Magoc, D. (2021). Personality antecedents of challenge and threat appraisal. *Stress & Health: Journal of the International Society for the Investigation of Stress*, *37*(4), 682–691. https://doi.org/10.1002/smi.3028

Trent, J. D., Barron, L. G., Rose, M. R., & Carretta, T. R. (2020). Tailored Adaptive Personality Assessment System (TAPAS) as an indicator for counterproductive work behavior: Comparing validity in applicant, honest, and directed faking conditions. *Military Psychology*, *32*(1), 51–59. https://doi.org/10.1080/08995605.2019.1652481

Tuddenham, R. D. (1948). Soldier intelligence in World Wars I and II. *American Psychologist*, *3*(2), 54–56. https://doi.org/10.1037/h0054962

Tupes, E. C., & Christal, R. E. (1992). Recurrent personality factors based on trait ratings. *Journal of Personality*, *60*(2), 225–251. https://doi.org/10.1111/j.1467-6494.1992.tb00973.x

Turner, J., Wagner, T., & Langhals, B. (2022). Biomechanical and psychological predictors of failure in the Air Force physical fitness test. *Sports (2075-4663)*, *10*(4). https://doi.org/10.3390/sports10040054.

Twenge, J. M., Exline, J. J., Grubbs, J. B., Sastry, R., & Campbell, W. K. (2015). Generational and time period differences in American adolescents' religious orientation, 1966–2014. *PLoS ONE*, *10*(5), 1–17. https://doi.org/10.1371/journal.pone.0121454

Ujoatuonu, I. V. N., Kanu, G. C., Okafor, C. O., & Okeke, C. S. (2022). Work method control of Nigerian armed forces personnel: Roles of psychological detachment and conscientiousness. *Journal of Psychology in Africa*, *32*(5), 454–458. https://doi.org/10.1080/14330237.2022.2121051

Uppal, N. (2017). Moderation effects of perceived organisational support on curvilinear relationship between neuroticism and job performance. *Personality and Individual Differences*, *105*, 47–53. https://doi.org/10.1016/j.paid.2016.09.030

U.S. Air Force Recruiting. (2018, November 29). *U.S. Air Force EOD Techician: What makes EOD a good fit?* YouTube. https://www.youtube.com/watch?v=fpzzAf7QSz0

U.S. Air Force Recruiting. (2021, February 24). *U.S. Air Force: Explosive Ordnance Disposal (EOD) career chat.* YouTube. https://www.youtube.com/watch?v=cpTY-w8xlsE

U.S. Department of Defense. (2022). *National defense strategy of the United States of America: Including the 2022 Nuclear Posture Review and the 2022 Missile Defense Review.* https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF

U.S. Department of Labor Employment and Training Division. (2006). *Testing and assessment: A guide to good practices for workforce investment professionals.* https://www.dol.gov/sites/dolgov/files/ETA/advisories/TEN/2007/TEN21-07a1.pdf

Van Der Meulen, E., Van Der Velden, P. G., Van Aert, R. C. M., & Van Veldhoven, M. J. P. M. (2020). Longitudinal associations of psychological resilience with mental health and functioning among military personnel: A meta-analysis of prospective studies. *Social Science & Medicine*, *255*. https://doi-org/10.1016/j.socscimed.2020.112814

Velgach, S., & Arabian, J. M. (2023). Commentary on the criterion problem in the US Department of Defense: Policy and operational considerations. *Military Psychology*, *35*(4), 364–371. https://doi.org/10.1080/08995605.2023.2218787

Wada, R. K. (2020). Leadership, behavioral science, and interprofessional teamwork. *Translational Behavioral Medicine*, *10*(4), 905–908. https://doi.org/10.1093/tbm/ibaa063

Waldeyer, J., Dicke, T., Fleischer, J., Guo, J., Trentepohl, S., Wirth, J., & Leutner, D. (2022). A moderated mediation analysis of conscientiousness, time management strategies, effort regulation strategies, and university students' performance. *Learning and Individual Differences*, *100*. https://doi.org/10.1016/j.lindif.2022.102228

Walumbwa, F. O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: Mediating roles of ethical leadership and work group psychological safety. *Journal of Applied Psychology*, *94*(5). https://doi.org/10.1037/a0015848

Wang, L., Zhang, Y., & Fu, Z. (2023). Chinese personality traits and mental health: A meta-analysis. *Behavioral Sciences (2076-328X)*, *13*(8), Article 683. https://doi.org/10.3390/bs13080683

Ward, C. J., Koralewski, J., Matyskiela, K., Baumann, A., Baker-Littman, S. L., McKee, W. J., Nation, M., Brich, H., Boykin, B., & Fries, J. (2008). Navy Explosive Ordnance Disposal School Master Development Plan for Test Area D-51 final environmental assessment. *Science Applications International Corp.* https://apps.dtic.mil/sti/citations/ADA630857

Wasko, L., Owens, K. S., Campbell, R., & Russel, T. (2012). Development of the combat/deployment performance rating scales. In D. J. Knapp, K. S. Owens, & M. T. Allen (Eds.), *Validating future force performance measures (Army Class): In-unit performance longitudinal validation* (Technical Report 1314, pp. A1–A11). US Army Research Institude for Behavioral and Social Sciences.

Waugh, G. W., & Russell, T. L. (2005). Predictor situational judgement test. In D. J. Knapp, C. E. Sager, & T. R. Tremble (Efs.), *Development of experimental Army enlisted selection and classification tests and job performance criteria* (Technical Report 1168, pp. 135–154). US Army Research Institute for Behavioral and Social Sciences.

Wechsler, D. (1939). *The measurement of adult intelligence*. Williams & Wilkins Co.

Weiner, I. B., & Greene, R. L. (2017). *Handbook of personality assessment* (2nd ed.). Wiley.

Wenzel, M., von Versen, C., Hirschmüller, S., & Kubiak, T. (2015). Curb your neuroticism – Mindfulness mediates the link between neuroticism and subjective well-being. *Personality and Individual Differences*, *80*, 68–75. https://doi.org/10.1016/j.paid.2015.02.020

White, L. A., & Young, M. C. (1998). *Development and validation of the Assessment of Individual Motivation (AIM).* Paper presented at the Annual Meeting of the American Psychological Association.

Whitmarsh, P. J., & Sulzen, R. H. (1989). Prediction of simulated infantry-combat performance from a general measure of individual aptitude. *Military Psychology*, *1*(2), 111–116. https://doi.org/10.1207/s15327876mp0102_4

Widiger, T. A., & Mullins-Sweatt, S. N. (2009). Five-Factor Model of Personality disorder: A proposal for DSM-V. *Annual review of clinical psychology*, *5*, 197–220. https://doi.org/10.1146/annurev.clinpsy.032408.153542

Wihler, A., Meurs, J. A., Momm, T. D., John, J., & Blickle, G. (2017). Conscientiousness, extraversion, and field sales performance: Combining narrow personality, social skill, emotional stability, and nonlinearity. *Personality and Individual Differences*, *104*, 291–296. https://doi.org/10.1016/j.paid.2016.07.045

Wihler, A., Meurs, J. A., Wiesmann, D., Troll, L., & Blickle, G. (2017). Extraversion and adaptive performance: Integrating trait activation and socioanalytic personality theories at work. *Personality and Individual Differences*, *116*, 133–138. https://doi.org.seu.idm.oclc.org/10.1016/j.paid.2017.04.034

Williams, P. G., Rau, H. K., Cribbet, M. R., & Gunn, H. E. (2009). Openness to experience and stress regulation. *Journal of Research in Personality*, *43*(5), 777–784. https://doi.org/10.1016/j.jrp.2009.06.003

Willroth, E. C., Luo, J., Atherton, O. E., Weston, S. J., Drewelies, J., Batterham, P. J., Condon, D. M., Gerstorf, D., Huisman, M., Spiro, A., III., Mroczek, D. K., & Graham, E. K. (2023). Personality traits and health care use: A coordinated analysis of 15 international samples. *Journal of Personality & Social Psychology*, *125*(3), 629–648. https://doi.org/10.1037/pspp0000465

Woo, S., Chernyshenko, O., Longley, A., Zhang, Z.-X., Chiu, C.-Y., & Stark, S. (2014). Openness to experience: Its lower level structure, measurement, and cross-cultural equivalence. *Journal of Personality Assessment*, *96*(1), 29–45. https://doi.org/10.1080/00223891.2013.806328

Wood, R. E., Beckmann, N., Ren, S., & Guan, B. (2022). Situation contingent negative emotions and performance: The moderating role of trait neuroticism. *Personality and Individual Differences*, *197*. https://doi.org/10.1016/j.paid.2022.111788

Woolley, M. R., Walsh, J. L., Carretta, T. R., Mouton, A. N., & Deregla, A. R. (2023). *Development and psychometric evaluation of predictive success models for US Air Force rated career fields: Interim Report.* Air Force Research Laboratory.

Wu, J. (2021). Impact of personality traits on knowledge hiding: A comparative study on technology-based online and physical education. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.791202

Xu, X., Le, N., He, Y., & Yao, X. (2020). Team conscientiousness, team safety climate, and individual safety performance: A cross-level mediation model. *Journal of Business and Psychology*, *35*(4), 503–517. https://doi.org/10.1007/s10869-019-09637-8

Yalch, M. M., & Levendosky, A. A. (2016). The influence of interpersonal style on the appraisal of intimate partner violence. *Journal of Interpersonal Violence*, *31*(14), 2430–2444. https://doi.org/10.1177/0886260515576969

Yalch, M. M., Watters, K. N., & Gallagher, A. R. (2021). Influence of personality traits on posttraumatic cognitions of sexual assault. *Journal of Trauma & Dissociation*, *23*(4), 416–431. https://doi.org/10.1080/15299732.2021.1989121

Yao, Y., Liu, G. G., & Cui, Y. (2020). Job training and organizational performance: Analyses from medical institutions in China. *China Economic Review*, *60*. https://doi.org/10.1016/j.chieco.2019.101396

Yerkes, R. M. (1921). *Memoirs of the National Academy of Sciences, vol xv: Psychological examining in the United States Army* (R. M. Yerkes (Ed.)). Washington Government Printing Office. https://doi.org/10.1037/10619-000

Yesil, S., & Sozbilir, F. (2013). An empirical investigation into the impact of personality on individual innovation behaviour in the workplace. *Procedia - Social and Behavioral Sciences*, *81*, 540–551. https://doi.org/10.1016/j.sbspro.2013.06.474

Yu, M. C., Reeder, M. C., Dorsey, D., & Allen, M. T. (2023). Administrative records-based criterion measures. *Military Psychology*, *35*(4), 351–363. https://doi.org/10.1080/08995605.2022.2063614

Yuan, X., Li, Y., Xu, Y., & Huang, N. (2018). Curvilinear effects of personality on safety performance: The moderating role of supervisor support. *Personality and Individual Differences*, *122*, 55–61. https://doi.org/10.1016/j.paid.2017.10.005

Yun, G., Yanhong, Z., Jianqiao, L., Xinwei, G., Jintao, L., Xiang, X., Cunchao, L., Min, Z., & Yumei, Z. (2017). Negative feedback and employee job performance: Moderating role of the Big Five. *Social Behavior & Personality: An International Journal*, *45*(10), 1735–1744. https://doi.org/10.2224/sbp.6478

Zaccaro, S. J., Kemp, C., & Bader, P. (2017). Leader traits and attributes. In J. Antonakis, A. T. Cianciolo, & R. J. Sternberg (Eds.), *The nature of leadership* (3rd ed., pp. 29–55). Sage.

Zaccaro, S. J., Laport, K., & Jose, I. (2012). *The attributes of successful leaders: A performance requirements approach*. The Oxford Handbook of Leadership. Oxford Handbooks Online. http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780195398793.001.0001/oxfordhb9780195398793-e-

Zell, E., & Lesick, T. L. (2022). Big five personality traits and performance: A quantitative synthesis of 50+ meta-analyses. *Journal of Personality*, *90*(4), 559–573. https://doi.org/10.1111/jopy.12683

Zhang, F., Baranova, A., Zhou, C., Cao, H., Chen, J., Zhang, X., & Xu, M. (2021). Causal influences of neuroticism on mental health and cardiovascular disease. *Human Genetics*, *140*(9), 1267–1281. https://doi.org/10.1007/s00439-021-02288-x

Zheng, X., Wu, S., & Nie, D. (2021). Online health misinformation and corrective messages in China: A comparison of message features. *Communication Studies*, *72*(3), 474–489. https://doi.org/10.1080/10510974.2021.1917437

Zickar, M. J., Gibby, R. E., & Robie, C. (2004). Uncovering faking samples in applicant, incumbent, and experimental data sets: An application of mixed-model item response theory. *Organizational Research Methods*, *7*(2), 168–190. https://doi.org/10.1177/1094428104263674

Ziegler, M., Bensch, D., Maaß, U., Schult, V., Vogel, M., & Bühner, M. (2014). Big Five facets as predictor of job training performance: The role of specific job demands. *Learning and Individual Differences*, *29*, 1–7. https://doi.org/10.1016/j.lindif.2013.10.008

Appendix A: Recruitment Invitation

Dear Air Force EOD War Fighters!

I am calling on all Air Force EOD Combat Veterans of Iraq and Afghanistan for some help. We've all said that EOD Techs are a special breed or that it takes a "Type-A" personality to be EOD. Even those outside our community have noted that we're all crazy. Well, I'm trying to put some academic rigor behind these bar-table assertions.

I am completing my dissertation entitled "Personality Trait Theory and Combat Performance: A Retroactive Study Analyzing Combat Performance and Resilience Among USAF EOD Veterans of Iraq and Afghanistan," and I need your help. This study is completely voluntary and unaffiliated with official Air Force channels but will hopefully provide the EOD and Air Force community valuable insight into the role that personality traits play in combat performance and resilience, not to mention contributing to the broader literature about leadership in high-stress/high-risk roles.

The only criteria to complete the survey is that you were at one point in your career a member of the United States Air Force Total Force EOD community (Active Duty, Guard, or Reserve), have completed NAVSCOLEOD, be over the age of 18, and earned the Afghanistan Campaign Medal, Iraq Campaign Medal, or Global War or Terror Expeditionary Medal as an Air Force EOD Technician. After data collection, all names and contact information will be deleted and replaced by numbers. Any identifying information will not be published nor viewed by anyone other than myself.

TEAM MEMBERS: Your survey will take less than 5 minutes to complete. You'll be asked to identify a Team Leader from a previous deployment, provide their name and email address, and then complete a 5-question survey about their combat performance. The Team Leader will never see the results of your survey. Here's the link to your TEAM MEMBER survey: (redacted)

TEAM LEADERS: You will complete 2 questionnaires: The first questionnaire is a 25-question survey to assess your level of resilience. The second

is a 60-question personality assessment. Please respond to me at (redacted) for survey links.

I encourage you all to please complete the survey and help spread this survey to our Brothers and Sisters who may not have social media.

Thank you so much for your participation in this study. And if you have any questions, please email me at (redacted).

Appendix B: Informed Consent Form

You are invited to participate in a research project about Air Force EOD Team Leaders' personality traits and correlations to combat performance and resilience.

You were chosen for the interview because of your experience and subject matter expertise. Please read this form and ask any questions you have before agreeing to be part of the research.

This research is being conducted by a researcher named M. Cole Pasley, who is a doctoral candidate at Southeastern University.

Background Information:
The purpose of this research is to leverage the participants' experiences with low and high-performing Air Force EOD Combat Veterans and examine any relationships between Team Leaders' personality traits, their combat performance, and resilience.

Procedures:
If you agree, Team Members will be asked to identify a Team Leader from one or more of their previous deployments and complete a five-question survey for each Team Leader. Team Leaders will be asked to complete a 60-question personality assessment as well as a 25-question resilience assessment.

Voluntary Nature of the Interview:
Your participation in this research is voluntary. This means that everyone will respect your decision of whether or not you want to be a participant. No one at Southeastern University, nor within the Air Force EOD Veteran Community, will treat you differently if you decide not to participate. If you decide to join the project now, you can still change your mind later. If you feel stressed during the questionnaires, you may stop at any time.

Risks and Benefits of Being in the Interview:
There are not personal benefits to participating in this interview. There is minimal risk of psychological stress during this research due to the request to recall combat experiences. If you feel stressed during the research, you may stop at any time. If you feel stressed, please reach out to the After The Long Walk Hotline at (888) 412-0470 or the VA Veterans' Crisis Hotline by dialing 988 and pressing Option 1.

Compensation:
There is no compensation for participating in this interview.

Confidentiality:
Any information you provide will be kept confidential. The researcher will not use your information for any purposes outside of this interview project. Also, the researcher will not include your name or anything else that could identify you in

any reports of the interview. After data collection is complete, all names will be deleted and replaced with numbers within the data files.

Contacts and Questions:
The researcher's name is M. Cole Pasley. The researcher's Dissertation Chair is Dr. Joshua Henson. You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email at (redacted) or the instructor at (redacted). If you want to communicate privately about your rights as a participant, you can also contact Dr. Joshua Henson who is the Chair of the Southeastern University PhD/DSL programs.

Statement of Consent:
I have read the above information. I have received answers to any questions I have at this time. I am 18 years of age or older, and I consent to participate in the research.

If you feel you understand the study well enough to make a decision about it, please indicate your response by entering your full name and clicking "Yes" to complete the questionnaire.

Appendix C: TAKE5 FC Use Permission

12/24/23, 6:55 AM Southeastern University Mail - Data collection in US research project

SOUTHEASTERN UNIVERSITY

Pasley, Michael <mcpasley@seu.edu>

Data collection in US research project

Maik Spengler (HR Diagnostics AG) <Spengler@hr-diagnostics.de>
To: "Pasley, Michael" <mcpasley@seu.edu>
Cc: "Nicole Bock (HR Diagnostics AG)" <bock@hr-diagnostics.de>

Hi Cole,

I've attached our little introduction to the system.

My colleague Nicole will take care of your project during my absence.

She will also provide the 300 test codes (free of charge) to you directly. Please let her know how you would like to indicate your participants (e.g. participant_000

A friendly reminder:

We would appreciate it if you could provide some demographical data. Ethnicity would be of the highest importance, but gender, age, and sexual orientation would part of your criterion measures.

Please note that we will normalize the data once your data collection is completed. Until then the results in the system are preliminary and should not be interpret collection. We will set the results up within 7 days.

I would recommend to invite as many people as possible early on. This is crucial for the success of your thesis. Invite your friends to forward the invitation to take Amazon Voucher) to one lucky participant. This might motivate some more people to take part in the study. Personality measures are not as strong in effect size. understanding, we are more on the higher end of your estimated sample size. Please find the following graph as an indicator to my argumentation.

Source: https://www.psychologie.hhu.de/arbeitsgruppen/allgemeine-psychologie-und-arbeitspsychologie/gpower

Appendix D: CDPRS Use Permission

12/24/23, 6:52 AM Southeastern University Mail - FW: HumRRO.org: New message from Michael "Cole" Pasley

Hello Deirdre,

Someone has sent you a message using the contact form on HumRRO.org. See below for message details:

Dr. Knapp,

I hope you had a terrific weekend! My name is Cole, and I am preparing to defend my dissertation proposal entitled "Personality Trait Theory and Combat Performance: A Retroactive Study Analyzing Combat Performance and Resilience Among USAF EOD Veterans of Iraq and Afghanistan." In my proposed dissertation, I plan to use the Combat/Deployment Performance Rating Scale (CDPRS) from "Validating Future Force Performance Measures (Army Class): In-Unit Performance Longitudinal Validation (Tech Report 1314). Although the Tech Report is approved for public release with unlimited distribution, I thought it still appropriate to reach out and gain permission to employ this scale within my own research.

Thanks so much for your time. Have a great week!

Best,
Cole

-Michael "Cole" Pasley (mcpasley@seu.edu)

Heffner, Tonia S CIV USARMY HQDA ARI (USA) <tonia.s.heffner.civ@army.mil> Mon, Dec 18, 2023 at 9:46 AM
To: Deirdre Knapp <DKnapp@humrro.org>, "mcpasley@seu.edu" <mcpasley@seu.edu>

Cole,

Of course you may use it. We publish these documents to create a historical record but also with the hopes that someone will find them useful in the future. Please let me know how the scales function for you in your dissertation.

v/r, Tonia

Dr. Tonia Heffner

Chief, Selection and Assignment Research Unit

U.S. Army Research Institute

for the Behavioral and Social Sciences

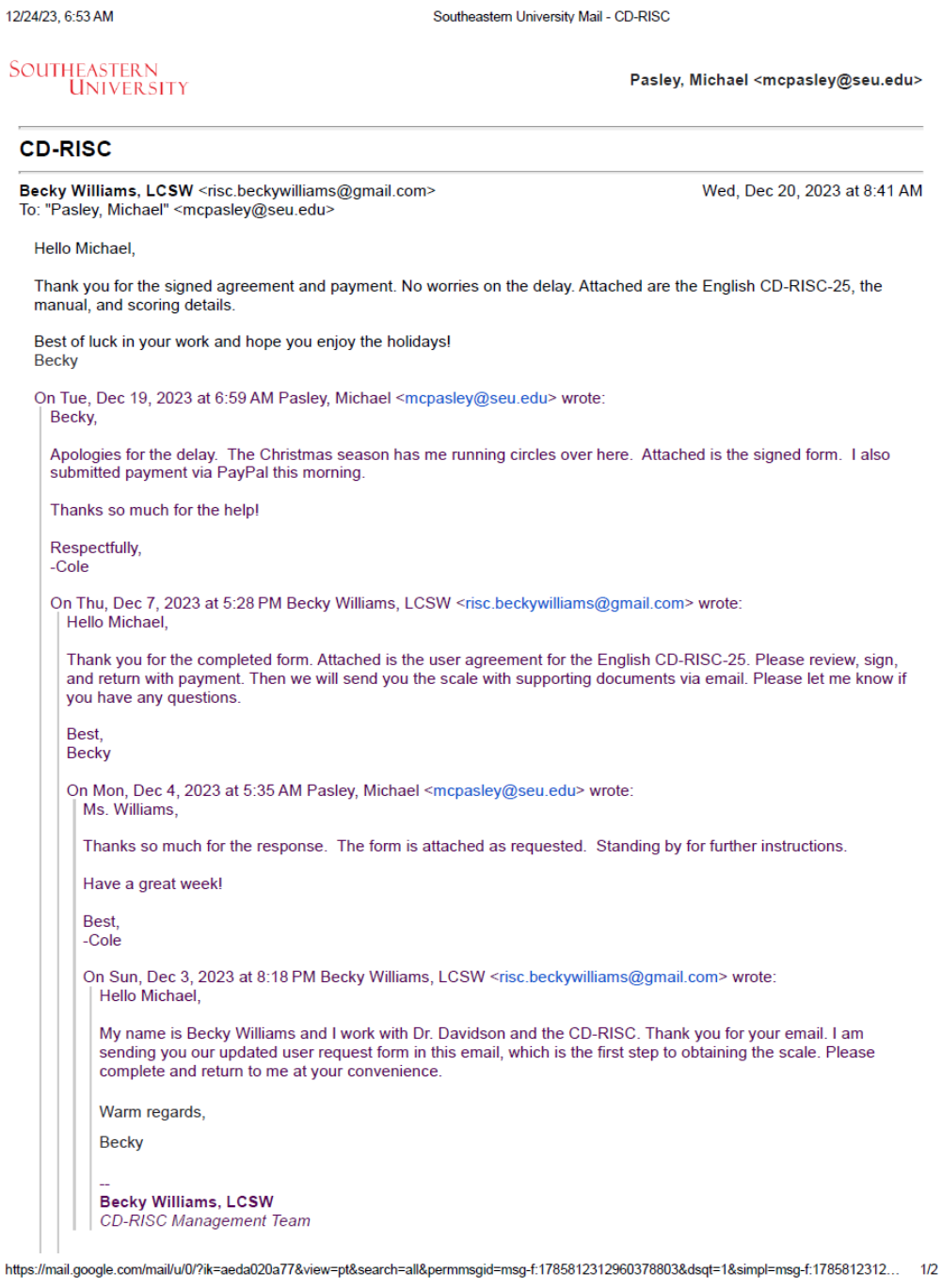
6000 6th Street

Fort Belvoir, VA 22060

703-819-1362 cell

[Quoted text hidden]

Appendix E: CD-RISC Use Permission



12/24/23, 6:53 AM Southeastern University Mail - CD-RISC

SOUTHEASTERN UNIVERSITY

Pasley, Michael <mcpasley@seu.edu>

CD-RISC

Becky Williams, LCSW <risc.beckywilliams@gmail.com> Wed, Dec 20, 2023 at 8:41 AM
To: "Pasley, Michael" <mcpasley@seu.edu>

Hello Michael,

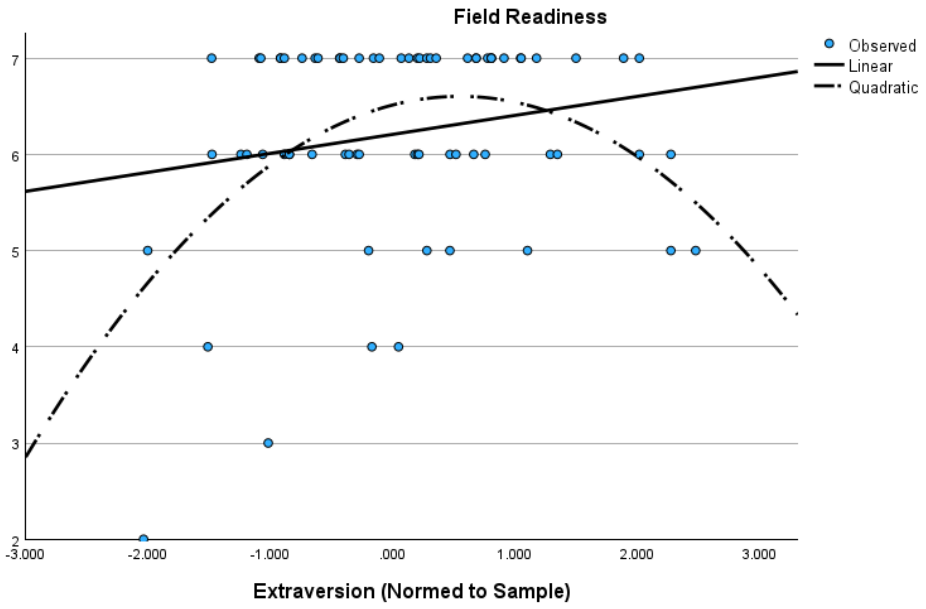
Thank you for the signed agreement and payment. No worries on the delay. Attached are the English CD-RISC-25, the manual, and scoring details.

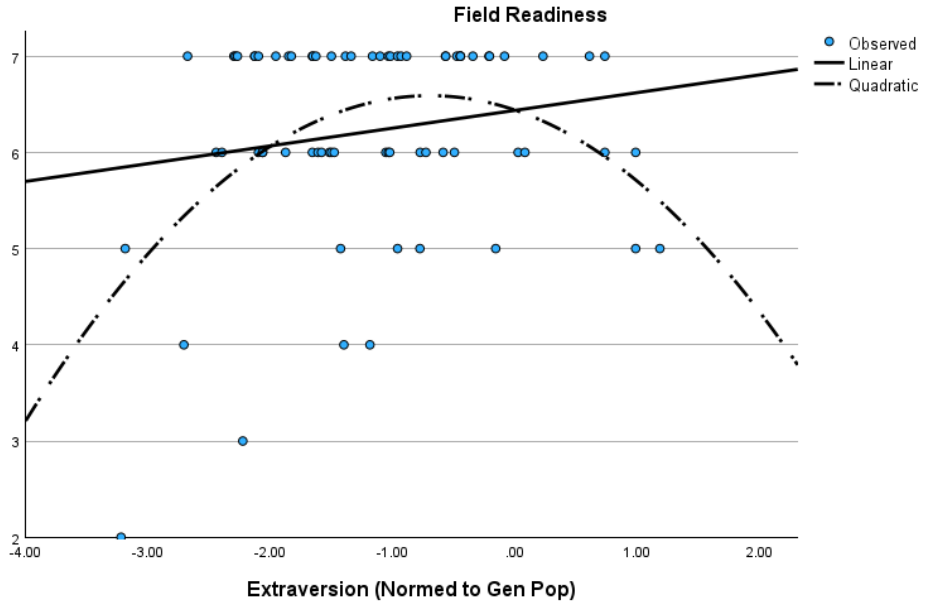
Best of luck in your work and hope you enjoy the holidays!
Becky

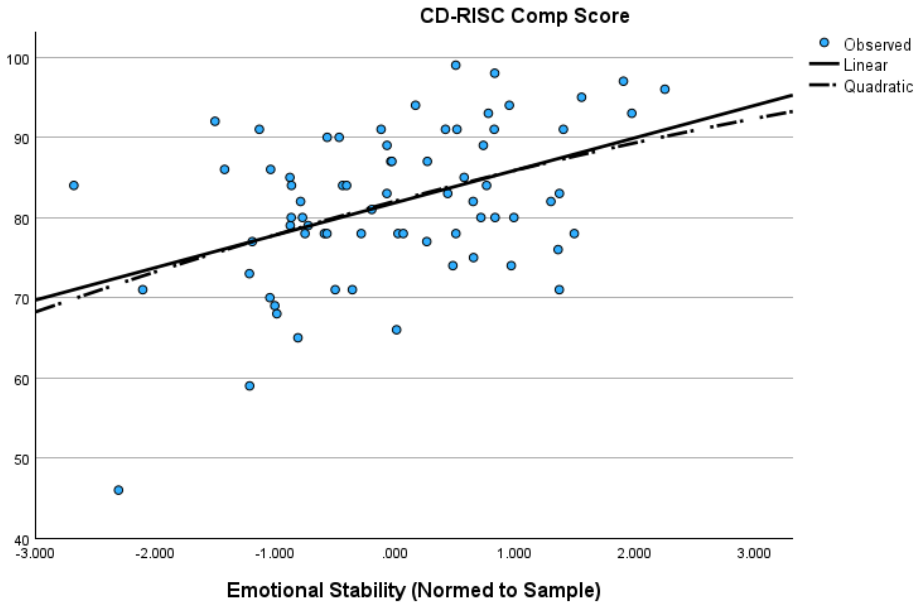
On Tue, Dec 19, 2023 at 6:59 AM Pasley, Michael <mcpasley@seu.edu> wrote:
> Becky,
>
> Apologies for the delay. The Christmas season has me running circles over here. Attached is the signed form. I also submitted payment via PayPal this morning.
>
> Thanks so much for the help!
>
> Respectfully,
> -Cole
>
> On Thu, Dec 7, 2023 at 5:28 PM Becky Williams, LCSW <risc.beckywilliams@gmail.com> wrote:
> > Hello Michael,
> >
> > Thank you for the completed form. Attached is the user agreement for the English CD-RISC-25. Please review, sign, and return with payment. Then we will send you the scale with supporting documents via email. Please let me know if you have any questions.
> >
> > Best,
> > Becky
> >
> > On Mon, Dec 4, 2023 at 5:35 AM Pasley, Michael <mcpasley@seu.edu> wrote:
> > > Ms. Williams,
> > >
> > > Thanks so much for the response. The form is attached as requested. Standing by for further instructions.
> > >
> > > Have a great week!
> > >
> > > Best,
> > > -Cole
> > >
> > > On Sun, Dec 3, 2023 at 8:18 PM Becky Williams, LCSW <risc.beckywilliams@gmail.com> wrote:
> > > > Hello Michael,
> > > >
> > > > My name is Becky Williams and I work with Dr. Davidson and the CD-RISC. Thank you for your email. I am sending you our updated user request form in this email, which is the first step to obtaining the scale. Please complete and return to me at your convenience.
> > > >
> > > > Warm regards,
> > > >
> > > > Becky
> > > >
> > > > --
> > > > **Becky Williams, LCSW**
> > > > *CD-RISC Management Team*

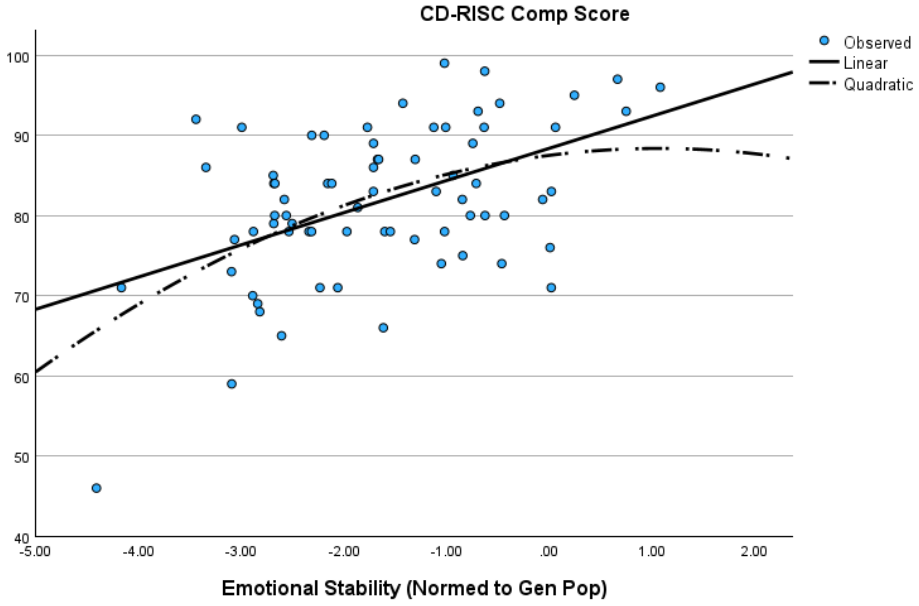
https://mail.google.com/mail/u/0/?ik=aeda020a77&view=pt&search=all&permmsgid=msg-f:1785812312960378803&dsqt=1&simpl=msg-f:1785812312... 1/2

Appendix F: Scatterplots for Most Predictive Correlations






CD-RISC Comp Score
Observed
Linear
Quadratic
100
90
80
70
60
50
40
-3.000
-2.000
-1.000
.000
1.000
2.000
3.000
Emotional Stability (Normed to Sample)


CD-RISC Comp Score
Observed
Linear
Quadratic
100
90
80
70
60
50
40
-5.00
-4.00
-3.00
-2.00
-1.00
.00
1.00
2.00
Emotional Stability (Normed to Gen Pop)