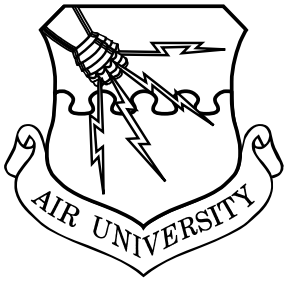
WARRIOR HEART

The Foundation of Combat Readiness

Research Summaries from the Air University Resilience Research Task Force

Foreword by Gen Michael Minihan, Air Mobility Command

Edited by Susan Steen, PhD; Angelle Khachadoorian, PhD;
and Mary Bartlett, PhD



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Foreword

Warrior Heart: The Foundation of Combat Readiness: This exceptional work from Air University provides commanders, leaders, and Airmen with a deeper understanding of human behavior and provides insights on creating Airmen and teams that grow stronger during the chaos of combat. As Airmen, we fully embrace the need to be exceptional at our craft—our jobs—and how they relate to the primary mission of the unit. War fighting is more than mission execution. The most fundamental level of war fighting is the mental ability of the individual to handle the trauma, chaos, and uncertainty of war.

We Must Elevate the Mind and the Body to the High Level of Our Craft

Combat demands a fee paid in physical and mental fatigue. It is the operating environment. It is an unchanging reality. The examples throughout history are legion. During WWII, flying 25 missions in a bomber over Europe was rewarded with a trip home. During Vietnam, the weeks-long bombing campaigns of Linebacker II severely depleted the readiness of aircraft and aircrews. A more modern example, the heroic airlift out of Kabul during Operation Allies Refuge, stretched those who fly, fix, and support aircraft to their mental and physical limits in just 21 days.

Leaders, especially commanders, must think deeply about what combat might demand of their units. At the most fundamental level you must treat the issue of mental health and well-being as a war-fighting imperative. The research in this collection can help guide your thinking and action.

Eliminate Stigma. Lower Barriers. Increase Access and Options.

There is no shame or stigma in personal struggle. And these struggles will happen. Do what you can to lower barriers to care and think creatively about how you can increase options for your Airmen to improve their ability to operate under the extreme demands of combat—in the same way you worry about your primary mission. The mind and body of each Airman are critical components to our war-fighting readiness.

We will win or lose with ingenuity and the magic that our Airmen create. The human will be more important than our technology or our aircraft. Before you dive into the research ask yourself this question: How do you prepare yourself and your Airmen to endure, overcome, and emerge whole? The answers you provide will be the difference between victory and defeat.

Warrior heart. No stigma. Let's go!

MICHAEL A. MINIHAN
General, USAF
Commander, Air Mobility Command

Preface

Working with the Air University Resilience Research Task Force has been a great investment and relationship for the Air Force Culture and Language Center (AFCLC). It is fair to ask why an organization whose mission is partner interoperability and adversary understanding through language, regional expertise, and culture education is involved in the topic of resilience. On the surface, it would appear there's not a direct connection to the Language Enabled Airman Program or the wide array of teaching and content produced by our faculty and staff on region and culture. But there is a strong connection to the organization's culture, general expertise, and how we win the long game with resilience operationally.

With the challenges we have faced in Airman and family resilience, Gen Michael Minihan has made it abundantly clear that the challenges are exponentially greater if we engage in major combat operations with a near-peer or rising power. The AFCLC's working definition of culture—shared patterns of values, behaviors, beliefs, and attitudes that are created, transmitted, maintained, and transformed over time—provides a framework for research and creation of knowledge and tools to empower leaders to build resilient cultures in their units.

The AFCLC's Susan Steen, PhD, fellow Air University faculty members, and several student cohorts have made significant progress in educating future leaders in how to take a proactive posture in building strength in preparation for dealing with adversity in peacetime and in conflict. They are creating the elements of a culture that future leaders can take into command to build resilient leadership teams, which in turn build resilient squadrons. Through implementing a well-designed culture of resilience, the enterprise is moving ever closer to substantial and meaningful progress with one of our most vexing problems: building a more resilient force. It is a privilege for the AFCLC to support and be a part of this effort that is critical to victory at the personal level and in our national security.

WALTER HOWARD WARD
Director
Air Force Culture and Language Center

Acknowledgments

The Air University Resilience Research Task Force is grateful for the leadership, support, and assistance of many who have helped make our work possible, including the Air Force Office of Integrated Resilience, Air Mobility Command, the Air University Commandant, and Air University's Office of Sponsored Programs, led by Margaret Sankey, PhD. We offer special thanks to Gen Michael Minihan and Maj Melinda "Jane" Marlow of Air Mobility Command for their inspiring leadership on Warrior Mental Health initiatives. We thank the leadership of the Air War College and Air Command and Staff College for their interest and engagement. We owe an enormous debt of gratitude to the Air Force Culture and Language Center, led by Mr. Walter Howard Ward, whose support has enabled us to conduct our work and connect to key partners and constituents in deeply important ways. We are grateful to numerous scholars who have lent their expertise to the project, providing our participants with vital information and resources that positioned us for successful inquiry into the important task of building resilience within the US Air Force and Department of Defense. We are thankful for the outstanding work of Donna Budjenska, project leader, and her colleagues Catherine Smith, Cheryl Ferrell, Jonathan Marks, Kimberly Leifer, and Jeanne Shamburger as well as the entire team at Air University Press, ably led by Paul Hoffman, PhD, whose creativity and commitment helped bring this book to life. Finally, the Resilience RTF faculty and students thank our families and friends for their encouragement and unwavering support of our work.

Introduction

This edited volume features a collection of research papers written by students enrolled in Air University's Resilience Research Task Force (RTF) during the 2024 academic year.

Resilience—defined within the US Air Force as "the ability to adapt to changing conditions and prepare for, withstand, and rapidly recover from disruption"—has emerged as an increasingly important topic for the Air Force over the past two decades.[1] From efforts surrounding suicide prevention and postvention to the introduction of the Comprehensive Airman Fitness (CAF) model and the development of master resilience trainers, the creation of the US Air Force Office of Integrated Resilience (HAF/A1Z) to spearhead and integrate resilience efforts across the force, Air Mobility Command's Warrior Mental Health initiatives, and many more, the Air Force's wide-ranging endeavors reflect a growing recognition of the need to deliberately develop and strengthen resilience in Airmen and their families.

At Air University, inquiry into resilience coalesced in academic year 2018 in a research task force created by Col (Dr.) Paul Nelson, Surgeon General Chair to Air University; Joel Farrell, PhD, a psychologist and the former Medical Chair for National Defense University; and multiple dedicated students including Col (Chaplain) Mike Newton, first as a participant and later as commandant of the Air Force Chaplain Corps College. In 2020 Amy Baxter, PhD, then director of research for the Global College of Professional Military Education, stepped in to lead the effort, with Air University professors Sebastian Lukasik, PhD; Mary Bartlett, PhD; and me contributing our expertise. In 2021 I became director. With support from Air University faculty including Mary Bartlett, PhD; Angelle Khachadoorian, PhD; and Amy Baxter, PhD, Air University's Resilience Research Task Force engages Air War College and Air Command and Staff College students in a yearlong project to identify and develop practical solutions and recommendations, grounded in evidence-based scholarship, to resilience challenges facing Airmen, the Air Force, and the Department of Defense. Participants spend the first semester exploring critical perspectives and theories to understand and strengthen personal resilience, foster social connectedness, and build organizational resilience. During the second semester, students develop a research paper on a resilience-related topic of interest and importance to the military, guided by project faculty.

The research presented in this volume analyzes scholarship on an array of topics identified by students, faculty, and RTF partners, including Air Mobility Command and the Air Force Office of Integrated Resilience. Each chapter opens with a paragraph authored by Maj Melinda Marlow, AMC's Warrior Mental Health Team lead, that highlights operational considerations and applications from Air Mobility Command to ground the content and orient the reader. A common thread connecting the chapters is the notion of resilience as not only an individual pursuit but also one with social and organizational dimensions. Such positioning acknowledges resilience in groups and organizations as more than simply the outcome of having resilient individuals within them but rather as a complex interplay of people, culture, structures, and processes. In this perspective, the whole is undoubtedly greater than the sum of its parts.

Maj Phil Jenkins examines the role of grit in enhancing performance, resilience, and mental health among military service members through a comprehensive literature review. His paper advances the theoretical framework of grit's effect on the military and offers actionable strategies for cultivating grit within the military.

Lt Col Justin Wetterhall investigates the relationship among grit, hardiness, and resilience to understand and foster organizational resilience. His analysis offers insights into the differences and overlaps among each important concept and provides pragmatic recommendations, concluding with a "Leader's Toolkit" to strengthen organizational resilience through increasing grit and hardiness.

LTC Ross McGee offers an analysis of generational differences, focusing on the three generations currently serving in the military and highlighting key generational distinctions related to risk-taking, communication, mental health and identity, and embrace of the slow-life movement. His paper provides practical recommendations for military leaders to understand and manage the impact of these differences within military organizations.

Maj Ian VanBergen analyzes the effect of combat-related trauma on military resilience and readiness. His review highlights the importance of developing and integrating peer-based intervention methods into exercise preparation, execution, and debriefing to prepare Air Force members for prospective future fights, especially important given the organizational shift from co-located deployments to geographically separated operations.

Lt Col Brian McGinnis examines the efficacy of coaching for leadership development and offers a comparison of current USAF coaching programs. His chapter advocates for a more widespread integration of coaching within professional military education to provide greater benefit to the USAF across all levels.

Maj Amanda Hull explores the mental pillar of the Comprehensive Airman Fitness (CAF) model as a means of bolstering resilience training for Air Force ROTC (AFROTC) cadets. Her review suggests that although the AFROTC curriculum satisfactorily addresses elements of the physical, social, and spiritual aspects of CAF, cadets would benefit from an enhanced curriculum that includes activities to hone mental health fitness focused on awareness, adaptability, decision-making, and positive thinking.

Maj Romonte Sullivan offers an overview of the Comprehensive Airman Fitness model and its utility for building resilience considering the new Air Task Force structure designed to facilitate agile combat employment. He compares approaches to resilience development and training by two distinct military units and offers recommendations for delivering recurring training and building cross-functional teams to support military member resilience.

Maj Joseph Regan reviews scholarship on organizational resilience to identify strategies that build resilient teams in the context of agile combat employment and mission command, both of which feature decentralized command and mission execution. His examination concludes with the recommendation to build a culture and brand around team resilience in the military based on GAME, a continuing cycle of gathering, acclimating, motivating, and executing the practices and processes associated with resilient teams.

As our RTF's work has progressed, some important takeaways have emerged. First, resilience is not something that only some people have while others do not; it can be deliberately developed, strengthened, and practiced. Second, resilience is not one-size-fits-all; individuals can experience the same traumatic event and be affected differently, recovering on different timelines using different strategies. Third, resilience evolves over time, drawing upon resources, practices, and skills derived during and after adversity, and is—perhaps surprisingly—the most common human response to hardship or disruption. Moreover, positive organizational culture is a powerful force in cultivating team resilience. Finally—especially within the military, given its distinctively collective identity and orientation—a sense of belonging and social connectedness

are critical factors for resilience. As our work advances, Air University's Resilience RTF continues to investigate and position resilience as a mindset, a skillset, and a force multiplier for military readiness.

SUSAN STEEN, PHD
Director
Air University Resilience
Research Task Force

Notes

[1] Air Force Instruction (AFI) 90-5001, *Integrated Resilience*, 23 July 2024, 78.

1

Grit and the Military Service Member

How Cultivating Grit Enhances Performance, Resilience, and Mental Health

Maj Phillip R. Jenkins, PhD, USAF

Air Mobility Command Perspective

The transition from asymmetric warfare to Great Power Competition has brought the role played by Airmen to the forefront of the conversation. When uncontested operations, superior weaponry, and more detailed intelligence are not guaranteed, the weight of victory rests on the shoulders of Airmen. The exploration of grit and the role it plays in the development and sustainment of mental wellness, resilience, and performance has emerged in this context as a linchpin quality. The idea that an inherent drive, determination, and strength of purpose could offset the impact of stress—both combat and noncombat—is deeply compelling. However, leaders cannot look to grit as a quick solution to a complex problem without an investigation of the ethical challenges this holds. Can grit be developed? Is there a way to increase grit ethically, without risking further harm? How do we address the societal and systemic challenges that have made grit a requirement? How do we laud grit while not absolving ourselves, as leaders, of the responsibility to build stronger, safer operating environments for our Airmen, preserving their grit and tenacity for use on the battlefield? The issues are complex, and this paper offers an insightful window into their nuances. Proceed with humility, curiosity, and an openness to learn.

Introduction

In the context of military training and operations, where physical and mental resilience are necessary, grit also stands out as a key determinant

of success. Psychologists define *grit* as a fusion of passion and perseverance to achieve long-term goals.[1] This research explores the role of grit in enhancing performance, resilience, and mental health among military members. These areas are foundational to the success and effectiveness of military endeavors.

The concept of grit, especially as popularized by Angela Duckworth in her influential 2013 TED talk, has captured widespread attention across various sectors.[2] However, despite its recognized importance, the specific applications and impacts of grit in the military context have yet to be fully explored. Military organizations must prioritize cultivating grit among their personnel, as it significantly enhances performance, resilience, and mental health in the face of diverse operational challenges. This research demonstrates that developing grit leads to improved operational effectiveness, bolsters psychological resilience, and supports mental well-being. It also outlines effective strategies for integrating grit-enhancement practices into military training and leadership development programs.

While the concept of grit has been explored in various sectors, the application and nuanced impact of grit in military settings warrant further investigation.[3] Research has begun to illuminate the role of grit in the military; however, there remains room for deeper analysis into how grit can be most effectively (and ethically) cultivated and leveraged to enhance operational effectiveness and personnel well-being. This chapter builds on the existing foundation by examining how grit influences military outcomes and identifying targeted strategies for its development.

In this chapter, five primary objectives serve to shed light on different facets of grit in the military context. The first objective is to examine how grit influences military personnel performance by exploring performance metrics in military settings and identifying how the perseverance and passion inherent in grit contribute to enhanced operational effectiveness and task completion under challenging conditions. The second objective shifts focus to resilience, explicitly investigating the role of grit in bolstering the resilience of military personnel. This segment assesses how grit aids service members in enduring and overcoming the adversities and stressors of military life. Dissecting the components of grit crucial for resilience provides insights into how grit can be a foundational element in the psychological armor of military personnel.

The third objective addresses the effect of grit on the mental health of military personnel. With the unique psychological demands of

military service, it is imperative to understand how grit correlates with mental health outcomes. This exploration highlights the mechanisms through which grit may support or enhance the mental well-being of service members, offering a nuanced view of grit's role in psychological resilience. The fourth objective aims to identify the most effective strategies and practices for developing and enhancing grit among military personnel. Recognizing the practical need for actionable interventions, this research pinpoints which approaches prove most conducive to fostering grit in the military's distinct culture and operational framework. The goal is to highlight developmental strategies that can seamlessly integrate into military training and leadership programs.

The fifth objective is to offer recommendations on effectively integrating insights about grit into military training and leadership development. This objective involves translating the empirical findings into practical, evidence-based strategies for military application to improve the effectiveness of military operations and the well-being of personnel. By providing military leaders and trainers with grounded recommendations, this chapter contributes to a military environment where cultivating grit is prioritized, thereby enhancing the overall resilience, capability, and readiness of military forces.

In pursuing these objectives, the author strongly emphasizes ethical considerations, particularly in developing and applying strategies to foster grit among military personnel. The author recognizes the potential risks associated with intensifying training regimens or misapplying psychological concepts. Thus, this research is committed to proposing methods that enhance performance, resilience, and mental health without compromising the well-being of service members.

A systematic literature review aggregates and synthesizes existing empirical and theoretical insights on grit in military contexts. This methodological approach is chosen for its ability to rigorously examine available evidence, facilitating the identification of patterns, inconsistencies, and gaps in the literature. The review will include sources like peer-reviewed journal articles, military reports, and studies on psychological and organizational behavior, aiming for a balanced understanding of grit's implications in military settings through quantitative and qualitative research findings. Analyzing the findings helps identify actionable strategies for military training and leadership development, with careful consideration of their practicality and ethical implications. This regard ensures the recommendations align with ethical military practices.

Key Terms

The foundational terms supporting this study—grit, performance, resilience, and mental health—must first be defined. These definitions are drawn from authoritative psychology and military studies sources, grounding the discussion in recognized academic and practical perspectives. Defining these terms explicitly provides a consistent framework for the analysis, facilitating a nuanced understanding of how these attributes interplay in the unique demands of military contexts. This groundwork is essential for scholarly readers and practitioners alike, offering a base to consider the subsequent examination of empirical findings and their implications for military training and leadership practices.

Grit

Grit is recognized as a personality trait, defined succinctly as the "perseverance and passion for long-term goals."[4] This definition captures the essence of grit as a noncognitive variable that has been proposed as a significant predictor of success and performance across various domains, including the demanding environments of military training and operations.[5] Grit has two key components—perseverance of effort and consistency of interest—together forming the foundation for an individual's capacity to maintain focus and effort toward long-term objectives.[6]

Performance

Within the scope of this study, *performance* is understood as "the execution or accomplishment of work, acts, feats, etc.," a definition that captures the essence of achieving goals across a spectrum of activities.[7] This broad definition is instrumental in examining how the perseverance and passion inherent in grit contribute to enhanced outcomes and success across various domains, providing a universal framework to analyze and understand the role of grit in achieving excellence and meeting high standards of performance.

Resilience

Resilience is a term spanning a broad spectrum of meanings across different disciplines, reflecting its complex nature and the varied contexts in which it is applied.[8] The diversity in definitions points to the term's adaptability and its significance across psychological, systemic, and

environmental domains. One popular definition comes from Andrew Zolli and Ann Marie Healy, who describe resilience as "the capacity of a system, enterprise, or a person to maintain its core purpose and integrity in the face of dramatically changed circumstances."[9] This perspective highlights the importance of resilience in ensuring continuity and coherence amid significant challenges and transformations. In contrast, Adrian Van Breda, a clinical social worker and researcher, offers a more process-oriented view, defining resilience as "the multilevel processes that systems engage in to obtain better-than-expected outcomes in the face or wake of adversity."[10] This definition emphasizes resilience as an active, dynamic process involving multiple layers of interaction and adaptation to achieve positive outcomes despite adversity.

Despite the rich array of interpretations, this study aligns with the definition provided by the chairman of the Joint Chiefs of Staff and used by the United States Air Force, which captures the essence of resilience in the military context as "the ability to withstand, recover, and grow in the face of stressors and changing demands."[11] This definition articulates the attributes of resilience necessary for military personnel, highlighting the capacity to endure and bounce back from difficulties and the potential for growth and development in response to the unique pressures and demands of military life.

Mental Health

This study adopts the World Health Organization (WHO) definition of *mental health*, which encompasses "a state of mental well-being that enables individuals to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community."[12] Using the WHO's definition facilitates a comprehensive exploration of the broad relationship between grit and mental health, highlighting the potential of grit to positively influence mental health outcomes in the demanding military environment.

Theoretical Background and Critical Perspectives

The concept of grit has garnered significant attention in psychology and education research, emerging as a focal point for understanding achievement, success, and perseverance. This section traces the evolution of grit from its cultural roots to its current scientific exploration, noting the seminal contributions of Angela Duckworth et al. alongside

the critical perspectives of notable scholars.[13] The discussion extends to the ongoing debate surrounding grit's application, with a particular focus on how these theoretical insights and ethical considerations are especially pertinent to the military context.

Grit is historically celebrated in American culture for epitomizing the virtue of overcoming adversity through persistence, and the concept resonates within the military ethos. The valorization of resilient pioneers, cowboys, and athletes mirrors the qualities admired and required in military personnel, who face the dual challenge of physical and mental resilience in high-stakes environments.[14] As Duckworth et al. have advanced the conceptualization of grit in psychological research, introducing a globally recognized definition and a psychometric scale for its measurement, the implications of their work extend into the realm of military effectiveness and well-being.[15] More specifically, their research links grit to educational achievement and success beyond the influence of IQ, sparking a broad academic and public interest that is particularly relevant to grit's relationship with performance, resilience, and mental health of military members.[16]

Duckworth et al.'s operationalization of grit through the Grit-O Scale methodically measures grit via two primary dimensions: (1) consistency of interests, tracking the long-term stability of one's goals, and (2) perseverance of effort, assessing resilience to overcome challenges.[17] This scale established a foundational framework in grit research, offering a structured approach to assess the core qualities of grit. To improve practicality and efficiency, Duckworth and Patrick Quinn introduced the Grit-S Scale. It is a concise version that streamlines assessment for diverse applications, including military settings, without sacrificing depth in evaluating grit's defining qualities of enduring passion and persistent effort.[18]

Further advancements like the BISS-8 Scale adapted the Grit-S Scale for German-speaking populations, illustrating grit's cultural sensitivity.[19] This adaptation highlights the concept's widespread cultural applicability, affirming that grit transcends cultural boundaries and is relevant in various international contexts. Similarly, the NL-Grit scale was tailored for the Dutch context and validated in the challenging environment of the Dutch Marine Corps.[20] This adaptation emphasizes the importance of cultural and linguistic considerations in psychological assessments, revealing grit's variable manifestation and predictive validity across diverse settings.[21] The LT-Grit Scale is another extension of the Grit-S Scale. It includes a temporal dimension to grit

measurement, focusing on long-term persistence and offering a refined tool for assessing sustained effort and passion.[22] These developments highlight the growing acknowledgment of grit's complexity and its variable expression across different settings and populations, ensuring that the scales measure the fundamental aspects of grit—perseverance of effort and consistency of interest.

The heightened interest in grit has generated debates around its role in character education, its potential as a panacea for educational disparities, and the ethical implications of its emphasis. These discussions add complexity in the military, which must balance the pursuit of long-term objectives with ethical conduct and the welfare of individuals and units. Ethan Ris's exploration of the historical context of grit illuminates how its valorization, primarily by the privileged, may overlook the structural barriers less privileged individuals face.[23] This analysis prompts reconsidering how grit is conceptualized and promoted in military training, suggesting a need to address broader societal dynamics that influence success.

Moreover, Ariana Gonzalez Stokas's critique of grit's contemporary valorization in educational policies and its potential to reinforce class-based anxieties invites a parallel examination of how military culture and training programs might inadvertently echo similar sentiments.[24] This perspective, supported by Christopher Kirchgasler's insights, emphasizes the need for a military approach to grit that is acutely aware of and responsive to the socioeconomic backgrounds of its personnel, ensuring that the development of grit is inclusive and cognizant of diverse challenges.[25]

The research by Marcus Credé, Michael Tynan, and Peter Harms suggests that the effects of grit, while notable, may be more modest than previously envisioned.[26] This revelation is crucial for the military, where the stakes of overestimating grit's influence on success can have critical implications. It calls for a recalibration of how grit is integrated into training and leadership development, advocating for strategies that respect the individual and environmental factors shaping performance and resilience.

In addition to these critiques, the research conducted by Denni Arli et al. indicates potential ethical dilemmas inherent in the pursuit of grit.[27] Their findings reveal that individuals with high levels of grit may be more prone to Machiavellian behaviors, including amorality, a desire for control, and a propensity toward distrust, driven by an unwavering focus on their goals.[28] This darker side of grit poses

ethical concerns, particularly in the military, where the emphasis on achieving objectives must be carefully balanced with maintaining ethical standards and mutual trust among team members.

The study by Rahman Khan, Jean-Pierre Neveu, and Ghulam Murtaza refines the understanding of grit by exploring its curvilinear relationship with work goal progress and the critical role of perceived organizational support.[29] Their research suggests that optimal levels of grit, supported by a conducive organizational environment, enhance the likelihood of achieving work goals without succumbing to ethical pitfalls.[30] This insight is particularly relevant to military leadership, highlighting the importance of fostering a culture that supports perseverance while ensuring ethical oversight and personal well-being.

Building on these findings, Vasiliki Georgoulas-Sherry and Hannah G. Hernández's study illuminates the complex interplay between grit, resilience, and moral competence in the context of simulated combat exposure.[31] The authors define *moral competence* as "the affective orientation to perform altruistic behaviors toward others and the ability to judge moral issues logically, consistently, and at an advanced level of development," highlighting it as a crucial outcome for navigating ethical dilemmas in high-stress environments.[32] This clarification emphasizes the importance of service members making ethically sound decisions, even under the intense pressures of simulated combat. The results from the study suggest that grit can serve as a buffer, enhancing moral competence amid combat-like stressors.[33] This research highlights the importance of fostering both grit and resilience in military training programs to support ethical decision-making under pressure. William Hamilton's exploration of grit's variability across different educational contexts shows the nuanced application of grit in military settings, advocating for a personalized approach to developing this trait.[34] Together, these studies advocate for a comprehensive strategy in military training that balances the development of perseverance with the cultivation of ethical integrity and resilience.

Echoing this sentiment, Lily Li and Kevin Chung's exploration of the medical profession supports the argument for a balanced development of grit.[35] They call for a nurturing environment that not only promotes perseverance and passion but also prioritizes individuals' well-being and ethical integrity.[36] This balanced approach is imperative in the military, where the consequences of prioritizing perseverance without regard to ethical considerations or well-being can have far-reaching and severe impacts.

The collective research highlights the necessity of integrating ethical training in programs aimed at developing grit, ensuring that individuals develop the perseverance and passion to achieve their goals and maintain a strong ethical compass. This balance is particularly crucial in high-stakes environments like the military, where the implications of unethical behavior can extend far beyond the individual, affecting entire units and missions. Therefore, while fostering grit among military personnel, it is imperative also to cultivate an awareness of ethical boundaries and the importance of moral decision-making.

Incorporating these multifaceted insights, it becomes evident that while grit is valuable for overcoming challenges and achieving success, its cultivation and application must be approached with a nuanced understanding that includes ethical and environmental dimensions. These aspects are crucial in professions where the stakes are high and the impact of ethical considerations is profound. Despite the critiques and complexities surrounding grit, its exploration inspires a broad spectrum of research, highlighting the need for a balanced approach that considers motivational, ethical, and contextual factors.

Subsequent sections in this chapter pivot toward an empirical examination. This shift explores the effect of grit on performance, resilience, and mental health in the military, seeking to uncover effective cultivation strategies grounded in research.

Grit and Performance

This section investigates the relationship between grit and performance, emphasizing its implications in military settings. The discussion examines how the elements of perseverance and passion inherent in grit are key drivers for attaining and maintaining high-performance levels across various domains, including business, sports, education, and the military. It also highlights the direct influence of grit on individual and organizational outcomes and provides a nuanced perspective on its function in the challenging and evolving context of military operations. By synthesizing findings from different studies, the aim is to extract pertinent insights that apply to enhancing military personnel's operational performance, underlining grit's role in bolstering performance and strategic success.

A study by Riley Dugan et al. on business-to-business sales professionals shows that higher levels of grit significantly contribute to im-

proved job performance and greater job satisfaction.[37] This relationship between grit and enhanced performance outcomes emphasizes the element of perseverance. The relationship is also crucial for understanding the implications of grit in challenging and highly demanding contexts, such as the military.[38] Similarly, Joonghak Lee's research reveals the role of grit in organizational performance during a pandemic, highlighting how a supportive climate and transformational leadership amplify grit's positive effects.[39] Moreover, the study concludes that individuals with higher levels of grit enhance organizational performance even in challenging and uncertain circumstances.[40] These insights into the individual and organizational benefits of grit offer valuable perspectives for military settings, suggesting that a culture that fosters grit, supported by strong leadership, can improve service members' effectiveness and resilience in facing challenges.

Jon Jachimowicz et al.'s research on the components of grit—specifically perseverance and passion—reveals their synergistic effect on enhancing performance.[41] Their research supports the idea that passion enhances the predictive power of perseverance on performance, offering a more nuanced understanding of grit.[42] This insight is particularly relevant for military training and leadership development, where fostering passion and perseverance could lead to superior performance outcomes. Complementing this finding, Paul Silvia et al. provide a physiological lens on grit by showing that individuals high in perseverance experience increased autonomic activity during effortful tasks, indicating a physical embodiment of their mental fortitude.[43] This physiological evidence suggests that targeting training programs to bolster the psychological and physical aspects of grit will better equip service members to manage and excel under the pressure of sustained challenges.

The relationship between grit and performance is well-known in sports. Adeboye Elumaro challenges the notion that innate personality traits—such as the "Big Five" of openness, conscientiousness, extraversion, agreeableness, and neuroticism—dominate sports performance.[44] Instead, Elumaro identifies grit as a more accurate predictor of athletic achievement.[45] This shift in perspective highlights the importance of sustained effort and dedication, suggesting that behavioral and psychological skills are crucial to reaching high performance levels.

Further exploration into the realm of sports reinforces these conclusions. Michael Cazayoux and Mark DeBeliso's study on CrossFit athletes differentiates between novice and advanced levels, finding that those with higher levels of grit, especially in terms of passion, achieve

greater success.[46] This insight aligns with military training contexts, where a relentless pursuit of objectives underpins the efficacy of training and the success of operational missions. Additionally, Maria Ionel, Andrei Ion, and Laura Visu-Petra's research into rock climbing performance emphasizes perseverance as integral to grit by showing its significant correlation with climbing success.[47] This result challenges the predictive power of the Big Five personality traits in high-endurance sports and advocates for training programs that specifically enhance perseverance.[48] These insights are valuable for military personnel in illustrating how grit, through its facets of passion and perseverance, is a critical element in achieving excellence across physically and mentally taxing activities.

Transitioning from sports to the academic realm, a study by Elisa Hernández et al. reveals the mediated relationship between teacher-induced autonomy support (i.e., behaviors that foster student independence and choice) and students' academic performance through grit.[49] This research emphasizes perseverance's role and posits that nurturing educational environments can amplify grit's positive outcomes on performance.[50] While this study focuses on college students, the broader relevance of these findings suggests that grit's cultivation in demanding settings, such as military training, can be beneficial.[51] Military organizations can enhance individual and collective performance by fostering a culture that values perseverance, leading to greater mission success. Moreover, Claire Robertson-Kraft and Angela Duckworth's investigation into novice teachers demonstrates that higher grit levels coincide with enhanced effectiveness and retention, further emphasizing grit's potential to bolster performance in strenuous environments.[52] This evidence points to integrating grit development in military training to strengthen organizational success.

In a related vein, Paul Bazelais, David Lemay, and Tenzin Doleck's investigation into grit's effect on academic achievement—particularly in science, technology, engineering, and math fields—serves as a cautionary tale against oversimplifying grit's impact on performance.[53] Their analysis reveals that the influence of grit on achievement is not uniform across all educational contexts.[54] Thus, tailoring training programs to the unique demands and challenges of the military setting requires considering the specific environmental and task-related factors that affect grit's effectiveness.

Shifting the focus to a military context, research by Salvatore Maddi et al. conducted at the US Military Academy at West Point offers valuable insights into the relationship between grit and performance.[55] This study

emphasizes the influence of *hardiness*, defined as "a pattern of attitudes and skills embodying the existential form of courage and motivation necessary for learning from stressful circumstances," in predicting performance and retention among cadets.[56] It establishes hardiness as a more consistent predictor of performance than grit, highlighting its potential to enhance resilience and effectiveness in military training environments.[57] Dennis Kelly, Michael Matthews, and Paul Bartone further explore these dynamics, investigating the predictive validity of grit and hardiness on long-term performance and retention over the four-year program at West Point.[58] Their findings reiterate the significance of these noncognitive factors in military settings.[59] Subsequent work by Maddi et al. continues this exploration, reaffirming hardiness's critical role while acknowledging grit's contribution to long-term success and adaptation in challenging settings.[60] These studies collectively suggest that while hardiness may have a more immediate impact, grit's perseverance is crucial for sustained success in the demanding military training environment. Consequently, military training programs should integrate a balanced approach that cultivates hardiness and grit to bolster the overall performance of military personnel.

Celeste Luning et al. add a distinctive dimension to the understanding of grit in the military sphere.[61] This qualitative study explores how US military officers perceive and cultivate a gritty culture in their units.[62] It highlights the synergy between individual perseverance and the collective endurance required for mission success.[63] The findings reveal that a gritty environment is necessary for overcoming operational challenges and enhancing the efficacy of military units.[64] The perspectives amplify grit's impact on the personal and organizational levels, proposing that embedding grit into the core ethos of military entities can significantly boost their adaptability and performance in rigorous conditions.[65] This study corroborates grit's relationship with individual achievement and expands its application to organizational success, providing a road map for military leaders to foster a gritty culture that underpins sustained excellence and strategic success.

Examining grit's influence across diverse sectors highlights its role in enhancing performance and achieving success. The research demonstrates that grit is a critical determinant of high performance in individual and organizational contexts. These findings affirm the need for a systematic approach to developing grit in military training programs, preparing and equipping service members to meet immediate challenges and achieve long-term success. The relationship between

grit and resilience is examined next, particularly how grit enhances resilience and, in turn, contributes to sustained performance and effectiveness in the face of complex challenges.

Grit and Resilience

Grit and resilience are critical in the high-stress setting of military operations. These traits are essential for military personnel facing unique challenges that demand physical and psychological robustness. This section examines the nuanced interplay between grit and resilience, drawing from research in various high-pressure domains to determine their role in military settings.

In their comprehensive review, Jaclyn Stoffel and Jeff Cain explore grit and resilience in health professions education, emphasizing the emerging significance of these traits.[66] They illuminate the methodological hurdles in defining and quantifying grit and resilience and acknowledge their correlation with personal and academic well-being.[67] Their review found that while educational interventions aimed at increasing grit and resilience have produced mixed results, developing protective factors seems beneficial.[68] The nature of grit and resilience in health care mirrors the complexities faced in military training and operations, where quantifying psychological attributes can be equally challenging. Parallels exist between the demands of health professions and military environments, with both sectors facing high-stress situations that require quick recovery and sustained performance under pressure. Stoffel and Cain's advocacy for further research to reveal how these traits can be enhanced through educational interventions resonates with the military's pursuit of strategies to develop grit and resilience among its ranks.[69] Their work suggests a pressing need for detailed investigations into how these attributes can be cultivated and leveraged to bolster military personnel's performance and resilience, particularly in navigating stressful military operations.

Transitioning to an empirical focus, the research by Vidhu Mohan and Jaiprabh Kaur reveals a positive correlation between grit and academic resilience in students, demonstrating that those with elevated grit levels are more likely to have enhanced self-belief and persistence.[70] These findings imply that grit is a driving force enabling students to tackle and persevere through academic adversities. This notion aligns with structured training environments, like those in the military, where

cultivating such traits is crucial for success. Georgoulas-Sherry and Kelly's research explores the military domain, illustrating how grit and resilience are interconnected and critical for enduring the demands of military training.[71] They found that grit is a predictor of resilience in high-stress military scenarios.[72] This convergence of studies from academic and military settings highlights the interdependent relationship between grit and resilience, suggesting that the strategic development of grit could increase resilience, thereby improving adaptability in high-pressure environments like the military.

Mandi Musso et al. investigate the interplay between grit and resilience in emergency medical service (EMS) personnel, examining their role in mitigating post-traumatic stress disorder (PTSD) symptoms.[73] Their findings indicate a significant negative correlation between grit and PTSD symptoms, revealing that individuals with higher grit levels report fewer symptoms of PTSD.[74] This relationship emphasizes the potential of grit to bolster resilience, suggesting that EMS personnel with higher levels of grit are better equipped to handle the traumatic experiences encountered in their line of duty. These insights are relevant to military combat operations, where managing stress and trauma is paramount, suggesting that enhancing grit could be a strategic approach to bolster resilience against PTSD in military contexts.

Similarly, research on Jordanian orthopedic surgeons further explores the impact of grit and resilience in the medical field, particularly in relation to burnout.[75] This study reveals a pronounced occurrence of burnout among surgeons, with a negative correlation between burnout and levels of grit and resilience.[76] These findings imply that medical professionals with higher grit and resilience levels are better shielded from burnout, emphasizing the importance of these traits in withstanding the stress of surgical roles.[77] This insight parallels the military health care context, where similar stressors and burnout risks are prevalent. The research advocates for institutional measures to nurture grit and resilience to diminish burnout and improve well-being in high-pressure health care settings.[78] These sector-specific studies elucidate the function of grit and resilience in navigating the demanding realms of emergency and medical services, advocating for targeted development of these attributes in high-stress professional environments akin to the military.

The analytical work of Arran Caza, Brianna Caza, and Mehri Baloochi presents a critique of the relationship between grit and resilience, exploring the depth of grit as a component of broader resilience traits such as hardiness.[79] Their analysis indicates that while grit aligns with the perse-

verance found in hardiness, it does not encompass the full spectrum of resilience, which also involves control and adaptability to challenges.[80] This insight highlights the context-dependent role of grit in fostering resilience, emphasizing the need for a granular understanding of these traits in military leadership and resilience training programs. Conversely, Andrew Ledford et al.'s meta-analytic study confirms a positive correlation between grit and resilience in high-stress environments, reinforcing the importance of these traits in enhancing performance and adaptability, particularly in military settings.[81] Their findings highlight that the relentless pursuit of long-term objectives—a hallmark of grit—is frequently associated with the robust ability to rebound from setbacks, an essential aspect of resilience. This analysis reveals the synergy between grit and resilience and highlights their roles in enhancing performance and adaptability in rigorous environments like military training. While Caza, Caza, and Baloochi advocate for a more nuanced view that recognizes the limitations of grit in representing the full scope of resilience, Ledford et al.'s findings emphasize the practical benefits of their interconnectedness, especially in high-pressure situations. Together, these studies contribute to a refined understanding of how grit and resilience interact and their significance in military personnel development.

The aforementioned research across various sectors reveals key insights into the interplay between grit and resilience, with particular relevance for the military. These studies demonstrate that grit appears to be a predictor of resilience in high-stress scenarios. This positive correlation suggests that strategically developing grit could enhance resilience among military personnel. However, the findings also conclude that while grit contributes to resilience, it does not fully encompass broader resilience traits like hardiness, control, and adaptability. Thus, nurturing both grit and resilience emerges as crucial for the military context. The relationship between grit and mental health suggests that cultivating grit can positively impact psychological well-being and enable service members to effectively navigate the mental challenges inherent in military operations.

Grit and Mental Health

Grit is essential in mental health resilience across various high-stress domains. From academic settings to emergency medicine and in collectivist cultures, the evidence consistently shows that grit significantly

influences psychological outcomes, stress management, and quality of life. The following discussion explores the protective nature of grit against mental health challenges, its correlation with well-being in demanding professions, and its potential as a critical factor in enhancing the psychological fortitude of military personnel.

Grit is a protective factor against mental health challenges, as evidenced by Patou Musumari et al.'s study in Thailand.[82] Their research uncovers a negative correlation between grit and the prevalence of depression and anxiety among university students.[83] The findings reveal that students with higher levels of grit experience significantly lower rates of these mental health issues, indicating the importance of enhancing grit to mitigate adverse psychological outcomes.[84] In related research, Riya Shah and Anuja Deshpande examine the interaction between psychological well-being, resilience, grit, and optimism among college students in Mumbai.[85] Amid the heightened academic and emotional challenges of the COVID-19 pandemic, their study reveals a positive correlation between these psychological constructs and student well-being.[86] Interestingly, they observed that the direct relationship between grit and optimism was insignificant, indicating independent pathways for these traits in influencing mental health.[87] These studies collectively stress the need for fostering grit and related attributes in educational and training settings to bolster psychological resilience. For military mental health strategies, developing grit in training programs could be essential in equipping service members to handle the psychological demands of military life.

Reflecting similar themes in a high-stress medical environment, the study by Aaron Dam et al. shows that emergency medicine residents who exhibit higher levels of grit are less likely to experience burnout or low well-being.[88] This finding suggests that grit can serve as a buffer against the adverse effects commonly encountered in demanding professional settings. Therefore, integrating grit-enhancing strategies in military training programs could be crucial for service members, mirroring the benefits observed in emergency medicine for managing occupational stress.

In the context of a collectivist culture, research by Jesus Datu, Jana Valdez, and Ronnel King emphasizes the significant role of grit in educational and well-being outcomes among Filipino high school students, with perseverance of effort emerging as a stronger predictor of positive academic engagement and psychological well-being than consistency of interest.[89] Echoing these insights, Christina Sharkey et al. discovered

that higher levels of grit correlate with enhanced health care management skills and improved physical and mental health-related quality of life among college students.[90] These findings collectively emphasize the potential of grit to bolster health management and psychological resilience, crucial in the military setting. Encouraging persistent effort toward long-term goals and responsible health behaviors through grit-focused interventions can boost military personnel's operational effectiveness and overall well-being.

The research by Sarah Schimschal et al. accentuates the linkage between grit and mental health resilience, particularly in mental health nursing, showing how grit is negatively correlated to burnout and depression.[91] This finding advocates for cultivating grit in professions subjected to high stress, highlighting its role in bolstering mental well-being and serving as a psychological stress buffer. Extending this narrative, Arghavan Salles, Geoffrey Cohen, and Claudia Mueller's examination of surgical residents reveals that higher grit levels correspond to improved psychological well-being and reduced burnout.[92] These findings support strategies that enhance grit as preventive measures against burnout and mental distress. In the military sector, where personnel often face intense stressors like those encountered by surgical residents, these insights prove crucial. The research suggests that integrating grit development into military training can enhance service members' mental resilience and stress management abilities, contributing to the broader goal of establishing strong mental health infrastructures in demanding environments.

Building on these insights, Patrick Hill, Anthony Burrow, and Kendall Bronk's research elaborates on the predictors of grit, demonstrating that a commitment to purpose and positive affect significantly predict grit levels, with purpose commitment being a consistent predictor over time.[93] This finding highlights the importance of nurturing a sense of purpose alongside grit, especially in environments like the military, where a clear sense of mission and positive morale can influence mental resilience and operational effectiveness.

Déjà Clement et al. explore the relationship between psychological traits and mental health resilience, focusing on how grit, hope, and optimism contribute to suicide resilience.[94] Their study employs factor analytic techniques to delineate the nuanced relationships among these traits, illustrating that though they share a common psychological foundation, each contributes distinctively to mitigating suicide ideation.[95] Complementing these findings, Evan Kleiman et al.'s longitudinal study

indicates that gratitude and grit synergistically enhance life's meaning, significantly lowering the risk of suicidal thoughts.[96] This synergy between gratitude and grit establishes a complex mechanism of psychological resilience that could inform targeted interventions for suicide prevention. Further exploring grit's nuances, Tyler Wilson et al.'s research on student veterans indicates that while grit is positively correlated with military service, it may also restrict help-seeking behaviors, suggesting the need for balanced strategies in mental health support that foster grit while encouraging openness to assistance.[97] These combined insights emphasize the role of grit in augmenting mental resilience and influencing help-seeking behaviors. They offer valuable perspectives for refining mental health programs in the military, where the combination of resilience and accessible support is crucial.

The consistent pattern across these studies suggests that higher levels of grit are associated with improved mental health, making grit a valuable trait for individuals in high-stress professions, particularly in the military. Given its positive impact on mental health, incorporating grit-enhancement strategies into military training programs could be a strategic move to prepare service members for the psychological demands of their roles. How can grit be effectively cultivated? The next section explores research-based strategies for developing and enhancing grit, providing insights into how these practices can be integrated into military training and operations.

Grit Development Insights for Military Applications

Grit's role in enhancing performance, resilience, and mental health emphasizes its strategic value in military contexts. Beyond recognizing its potential, the imperative lies in identifying and implementing effective strategies to instill this trait among service members. Systematically developing grit can revolutionize how military personnel address and overcome challenges. This section presents evidence-based strategies proven to bolster grit, drawing on a broad spectrum of research and practical applications. These strategies focus on individual development and organizational practices that can foster a gritty environment. The next section pinpoints these strategies and offers recommendations for their practical application in the military to foster a seamless integration into training and development frameworks.

Madeline Perez presents a complementary perspective on cultivating grit through the lens of character strengths.[98] Perez's research introduces the Grit Effect (GE) model emphasizing the role of character strengths in developing grit, such as persistence, judgment, self-regulation, and love of learning.[99] This model posits that when systematically nurtured, these traits significantly enhance an individual's capacity for sustained effort and resilience, leading to improved overall performance and resilience.[100] By tailoring the principles of the GE model to the specific needs and context of the military and integrating them with existing training programs, it is possible to systematically enhance the grit of service members and prepare them to more effectively meet the demands of their challenging roles.

Implementing the GE model in a military context begins with a comprehensive assessment phase, using tools akin to the Values in Action inventory (i.e., a psychological assessment tool designed to identify an individual's character strengths and virtues) to gauge service members' character strengths.[101] This initial diagnostic phase is crucial for gauging service members' character strengths, pinpointing areas for development, and aligning training efforts with the demands of military service.

After the assessment, the focus shifts to developing targeted training initiatives that build on these identified strengths. Simulation exercises, for instance, can be designed to enhance judgment, while structured routines can be developed to improve self-regulation. By weaving these character strengths into the fabric of daily training and operations, military personnel are continually engaged in activities that promote sustained effort and strategic thinking, thereby nurturing a persistent love of learning. To ensure the effectiveness of this training approach, establishing regular assessment and feedback mechanisms is essential. These can include frequent evaluations, self-assessments, and peer feedback, all aimed at monitoring progress and refining training methods. This iterative process of evaluation and adjustment is central to maintaining the relevance and efficacy of the training, ensuring it meets the evolving needs of military operations.

While the GE model provides a structured approach to nurturing character strengths essential for grit, developing a growth mindset (i.e., the belief that basic qualities are things that can be cultivated through efforts, strategies, and help from others) acts as a catalyst.[102] Building on Perez's work on character strengths, Isnaeni Mas'uda and Sukma Amawidyati's research highlights the transformative power of a growth mindset in enhancing these core traits to foster grit and shows a strong

positive correlation between growth mindset and academic grit, especially among individuals in challenging environments.[103] Their findings indicate that viewing challenges as opportunities for learning and improvement can significantly boost an individual's perseverance and passion for long-term goals. Jennifer Bashant's research further reinforces this finding by advocating for the acknowledgment of struggle and confusion as natural elements of the learning process, which is important for military training where facing and overcoming challenges is critical for growth and skill acquisition.[104]

Drawing from the study by Melanie Hudson et al., it becomes evident that personal characteristics such as flexibility, shame resilience, and personal and social responsibility play a crucial role in developing grit.[105] Their research suggests that life experiences—particularly those involving engagement, service, and overcoming personal loss—contribute to cultivating grit and a growth mindset.[106] In the military context, emphasizing these aspects through training and development programs can foster a culture where service members are encouraged to grow through their experiences, enhancing their perseverance and adaptability.

Building on these ideas, Carlton Fitzgerald and Simona Laurian-Fitzgerald share that fostering a growth mindset extends beyond individual perseverance; it also embodies creating cooperative learning environments where a group collectively embraces challenges.[107] For example, engaging students in project-based learning groups or through peer-led study sessions provides practical experiences in handling real-world challenges in a cooperative environment. Moreover, incorporating Bashant's strategies, such as setting long-term goals and fostering an environment where mistakes are viewed as learning opportunities, could significantly bolster this approach in military settings.[108] This broader educational approach, underpinned by the personal characteristics identified by Hudson et al., can be adapted to military training, emphasizing the role of teamwork and shared problem-solving in developing resilience and grit. This approach creates a holistic framework for grit development that combines personal growth with structured learning experiences.

The military embraces a growth mindset to some degree. However, by incorporating Mas'uda and Amawidyati's insights, this mindset can be significantly deepened, shifting the perspective to regard obstacles as pivotal for development and growth.[109] Fitzgerald and Laurian-Fitzgerald's work further supports the notion that a supportive, challenge-oriented environment cultivates these qualities.[110] Bashant's emphasis on resilience

and perseverance aligns with the military's need for sustained commitment and robustness in the face of adversities.[111]

Developing specific training modules focused on cultivating a growth mindset can further enhance this transition, leveraging challenges as catalysts for growth and improvement. To operationalize Fitzgerald and Laurian-Fitzgerald's recommendations, these modules could integrate activities that promote cooperative learning and peer support, facilitating an environment where service members collaboratively engage in problem-solving and skill development.[112] These modules should emphasize developing persistence, learning from failures, and actively embracing challenges to prepare service members to innovate, adapt to new strategies and technologies, and continue through setbacks. Incorporating scenarios that require team collaboration and adaptability can simulate real-world military operations, enhancing the applicability of these skills in dynamic operational contexts. Adopting Bashant's view, these training programs should teach that encountering difficulties is a part of skill development, not a sign of failure, thereby preparing service members for the complexities of their roles.[113]

Research also indicates that grit is cultivated through experiences that combine mastery-oriented learning, structured challenges, supportive mentorship, and a clear commitment to personal and professional goals. Daeun Park et al. emphasize the importance of a mastery-oriented environment that values learning and personal growth, which can be instrumental in cultivating grit by encouraging continuous skill development and intrinsic motivation.[114] Tanisha Barrow highlights that grit develops through challenging experiences and supportive mentorship, indicating the need for engaging and demanding situations paired with guidance to build resilience and perseverance.[115] Similarly, Denitsa Heinrich's research in legal education asserts the value of deliberate practice, suggesting that structured, rigorous challenges combined with feedback enhance grit and problem-solving abilities.[116] Xin Tang et al. extend this concept by showing that goal commitment fortifies the perseverance aspect of grit, underlining the significance of clear, committed objectives in sustaining effort and tenacity.[117]

Translating these insights into practical applications entails developing training programs that mirror the mastery-oriented, challenge-infused environments identified in the research. Military training should prioritize mastery goals and personal growth, integrating deliberate practice sessions that provide clear feedback and emphasize learning from each experience. Programs should encourage service members to set

and commit to personal and professional goals, fostering a culture that values continuous improvement and resilience. Mentorship programs can be enhanced to provide guidance, support, and feedback, helping individuals navigate the complexities of military duties while developing their grit and resilience.

Leadership styles influence how grit is nurtured in the military. The role of servant leadership and transformational leadership in military training is well-established, and their promotion and enhancement are vital for instilling grit among service members. Kong Chan's research highlights that servant leadership—with its emphasis on empathy, active listening, foresight, and a dedication to others' growth—is instrumental in crafting a gritty environment.[118] Similarly, Lee's findings highlight how transformational leadership practices bolster organizational performance under adversity and uncertainty.[119] Through their capacity to inspire, motivate, and innovate, transformational leaders are integral to fortifying the resilience and grittiness of military personnel, enabling them to navigate the complexities of their duties more effectively.

Elevating these leadership paradigms in the military requires an ongoing, intensified effort to weave servant and transformational leadership principles deeper into military education and training. This initiative might include refining leadership development programs to further integrate qualities like empathy, foresight, motivation, and innovation. Moreover, giving service members more opportunities to apply these leadership styles in practical scenarios will emphasize their significance and effectiveness. Prominently advocating for servant and transformational leadership principles can foster a more resilient, growth-oriented force adept at confronting the diverse challenges of modern military operations and securing sustained success.

While the strategic integration of the above recommendations offers a blueprint for building a grittier military force, there are potential barriers to their successful implementation. Resistance to new training methods and the challenge of quantifying improvements in character strengths like grit may impede progress. This transition could also encounter skepticism or inertia in established training regimes. Overcoming such obstacles requires comprehensive change management strategies and a concerted effort to demonstrate the tangible benefits of these new approaches.

To mitigate these challenges, military training programs must prioritize clear goal setting, commitment to personal and professional development, and mentorship that guides service members through

demanding situations. By integrating structured, rigorous challenges with continuous feedback, the military can foster an environment conducive to the development of grit. A focused effort to cultivate a military culture that values and celebrates these strengths in training and operational contexts is essential. This culture shift must extend to all organizational levels, replacing perceptions of fixed abilities with a growth mindset that values continuous learning and adaptation.

Conclusion

This research employed a systematic literature review methodology, aggregating and synthesizing existing empirical and theoretical insights on the impact of grit across various sectors with a focus on military relevancy. By examining how grit influences performance, resilience, and mental health, the research identified targeted strategies for its cultivation among military personnel. The review spanned a broad spectrum of sources, encompassing peer-reviewed journal articles, military reports, and psychological and organizational behavior studies, enabling a comprehensive analysis of grit's role in enhancing military outcomes.

The study's recommendations focus on practical strategies to cultivate grit within military personnel, enhancing their performance, resilience, and mental health. These recommendations can be summarized as follows:

Implement character strengths assessments. Initiating a comprehensive evaluation using tools like the Values in Action inventory helps identify individual character strengths among service members. This foundational step enables the tailored development of training programs that enhance specific traits such as persistence, judgment, self-regulation, and a passion for learning, which are crucial for building grit.

Cultivate a growth mindset. Establishing a training environment that perceives challenges as opportunities for growth is essential. The military can cultivate a growth mindset and foster a grittier organization by embedding practices that encourage actively embracing difficulties and learning lessons from failures.

Promote mastery-oriented training environments. The design of military training programs should prioritize mastery goals and personal development. Such environments are characterized by deliberate practice sessions with clear feedback. This approach enhances skill

proficiency and cultivates an intrinsic motivation for continuous learning and resilience, reinforcing the grit necessary for military excellence.

Emphasize servant leadership and transformational leadership. It would be beneficial to further integrate servant and transformational leadership principles into military training and operations. This approach should focus on nurturing empathy, foresight, motivation, and innovation among leaders. These attributes create a supportive yet challenging environment that enhances service members' resilience and grit, preparing them to manage the complexities and adversities of military life effectively.

Each recommendation has its specific challenges, including logistical constraints and cultural resistance. These obstacles are detailed in the previous section and emphasize the need for robust change management and continual adaptation. This approach ensures a thorough understanding of the barriers and offers practical methods for their mitigation.

This study contributes to understanding grit's role in the military by merging theoretical insights and empirical evidence. It advances the theoretical framework by detailing how grit affects performance, resilience, and mental health in military personnel, providing a nuanced perspective that encompasses psychology, organizational behavior, and military studies. Empirically, the research consolidates existing literature to demonstrate a positive correlation between grit and improved military outcomes, highlighting the importance of traits like persistence, judgment, and self-regulation. Practically, it offers concrete recommendations for military training programs, advocating for character strengths assessment, growth mindset cultivation, mastery-oriented environments, and enhanced leadership models to foster grit. These contributions can guide military training and policy development and influence the broader cultural and organizational ethos, promoting the importance of grit in military settings.

Future research should aim to deepen our understanding of grit in the military context, addressing the gaps and building on the foundation established by this study. Priorities for subsequent investigations might include longitudinal studies tracking the development of grit over time in military personnel and evaluating the long-term effects of targeted grit-enhancement programs. Experimental research could assess the efficacy of specific interventions, like character strengths assessment and growth mindset training, in real-world military settings to determine their impact on service members' performance and well-being. Additionally, comparative studies across military

branches or international armed forces could reveal cultural or organizational factors that influence the cultivation and effects of grit. Investigating the potential adverse effects or limitations of overly emphasizing grit, such as burnout or ethical dilemmas, would provide a more balanced view of its role in military environments. Last, integrating grit with technology-enhanced training tools and simulations could offer innovative avenues for fostering this trait, aligning with modern military training methods and operational demands.

This examination of grit in the military context reveals its positive influence on the triad of performance, resilience, and mental health, setting the stage for a more formidable and adaptive fighting force. The deliberate enhancement of grit is essential for preparing military personnel to excel in the unpredictable arena of modern combat and strategic operations.

Notes

(Endnotes are presented primarily in shortened form. For more information, see the appropriate entry in the bibliography.)

1. Duckworth et al., "Grit: Perseverance and Passion," 1087.
2. Duckworth, "Grit: The Power of Passion."
3. Roach, *Leveraging Grit in Military Research*, 18.
4. Duckworth et al., "Grit: Perseverance and Passion," 1087.
5. Credé, Tynan, and Harms, "Meta-Analytic Synthesis of the Grit Literature," 493–94.
6. Credé, "What Shall We Do about Grit?," 606–7.
7. Dictionary.com, s.v. "performance," accessed 2 February 2024.
8. Southwick et al., "Resilience Definitions, Theory, and Challenges."
9. Zolli and Healy, *Resilience: Why Things Bounce Back*, 6–7.
10. Van Breda, "Critical Review of Resilience Theory," 2–4.
11. Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3405.01, *Chairman's Total Force Fitness Framework*, GL-2.
12. World Health Organization, "Mental Health."

13. Duckworth et al., "Grit: Perseverance and Passion."
14. Stokas, "Genealogy of Grit," 513–16.
15. Duckworth et al., "Grit: Perseverance and Passion," 1087–94.
16. Duckworth et al., 1098–1100.
17. Duckworth et al., 1087–1100.
18. Duckworth and Quinn, "Development and Validation of the Short Grit Scale (GRIT–S)," 166–74.
19. Schmidt et al., "Measuring Grit," 436–38.
20. Dijksma et al., "Psychometric Properties of the Grit Scale," 425–29.
21. Dijksma, Lucas, and Stuiver, "Dropout in Dutch Marine Recruits," 616–21.
22. Morell et al., "Grit: The Long and Short of It," 1038–58.
23. Ris, "Grit: A Short History," 8–12.
24. Stokas, "Genealogy of Grit," 513, 527.
25. Kirchgasler, "True Grit?," 693–95.
26. Credé, Tynan, and Harms, "Much Ado about Grit," 492, 502–3.
27. Arli et al., "Grit: The Good, the Bad and the Ugly," 1270–73.
28. Arli et al., 1270–73.
29. Khan, Neveu, and Murtaza, "Is Grit Hurting You?," 1332–35.
30. Khan, Neveu, and Murtaza, 1332–35.
31. Georgoulas-Sherry and Hernández, "Effects of Grit and Resilience," 167–74.
32. Georgoulas-Sherry and Hernández, 167.
33. Georgoulas-Sherry and Hernández, 167–74.
34. Hamilton, "Too Much Grit to Quit?," 191.
35. Li and Chung, "We Need to Talk about Grit," 951–54.
36. Li and Chung, 951–54.
37. Dugan et al., "Positive Effect of Salesperson Grit," 82.
38. Dugan et al., 93.
39. Lee, "Role of Grit in Organizational Performance," 1–11.
40. Lee, 1–11.
41. Jachimowicz et al., "Why Grit Requires Perseverance," 9980–85.
42. Jachimowicz et al., 9980–85.
43. Silvia et al., "Gritty People Try Harder," 200–05.
44. Elumaro, "Personality, Grit and Sporting Achievement," 14–17.
45. Elumaro, 14–17.
46. Cazayoux and DeBeliso, "Effect of Grit on Performance in Crossfit," 32–34.
47. Ionel, Ion, and Visu-Petra, "Personality, Grit, and Performance in Rock-Climbing," 317–21.
48. Ionel, Ion, and Visu-Petra, 317–21.
49. Hernández et al., "Effect of Perceived Autonomy Support and Grit," 1, 9–10.
50. Hernández et al., 1, 9–10.
51. Hernández et al., 1, 9–10.
52. Robertson-Kraft and Duckworth, "Trait-Level Perseverance and Passion," 1–2, 10–12.
53. Bazelais, Lemay, and Doleck, "How Does Grit Impact College?," 33–43.
54. Bazelais, Lemay, and Doleck, 33–43.
55. Maddi et al., "Role of Hardiness and Grit," 19–28.
56. Maddi et al., 21.
57. Maddi et al., 23–26.
58. Kelly, Matthews, and Bartone, "Grit and Hardiness," 327–42.
59. Kelly, Matthews, and Bartone, 327–42.
60. Maddi et al., "Continuing Role of Hardiness and Grit," 355–58.

61. Luning et al., "Culture of Organizational Grit," 558–61.
62. Luning et al., 558–61.
63. Luning et al., 558–61.
64. Luning et al., 558–61.
65. Luning et al., 558–61.
66. Stoffel and Cain, "Grit and Resilience Literature," 124–32.
67. Stoffel and Cain, 124–32.
68. Stoffel and Cain, 124–32.
69. Stoffel and Cain, 132.
70. Mohan and Kaur, "Grit and Academic Resilience," 39–47.
71. Georgoulas-Sherry and Kelly, "Resilience, Grit, and Hardiness," 165–78.
72. Georgoulas-Sherry and Kelly, 165–78.
73. Musso et al., "Relationship Between Grit and Resilience," 199–203.
74. Musso et al., 199–203.
75. Hamdan et al., "Burnout, Grit and Resilience."
76. Hamdan et al.
77. Hamdan et al.
78. Hamdan et al.
79. Caza, Caza, and Baloochi, "Is Grit a Source of Resilience?," 25–38.
80. Caza, Caza, and Baloochi, 25–38.
81. Ledford et al., "Grit in a Population of Navy SEAL Candidates," 82–101.
82. Musumari et al., "Grit Is Associated with Lower Level of Depression," 1–16.
83. Musumari et al., 1–2, 9, 12.
84. Musumari et al., 1–2, 9, 12.
85. Shah and Deshpande, "Psychological Well-being, Resilience, Grit, and Optimism," 43–51.
86. Shah and Deshpande, 47.
87. Shah and Deshpande, 49.
88. Dam et al., "Grit, Burnout, and Well-Being," 14–19.
89. Datu, Valdez, and King, "Successful Life of Gritty Students," 503–16.
90. Sharkey et al., "Role of Grit in College Student Health Care," 952–61.
91. Schimschal et al., "Grit: A Concept Analysis," 495–505.
92. Salles, Cohen, and Mueller, "Grit and Resident Well-Being," 251–54.
93. Hill, Burrow, and Bronk, "Persevering with Positivity and Purpose," 257–69.
94. Clement et al., "Common Factors of Grit," 1–10.
95. Clement et al., 1–3, 9–10.
96. Kleiman et al., "Gratitude and Grit Indirectly Reduce Risk," 539–46.
97. Wilson et al., "Decreased Mental Health Help-Seeking," 2025–30.
98. Perez, "Obtaining Academic Success," 56–63.
99. Perez, 60.
100. Perez, 58–62.
101. Perez, 59.
102. Dweck, *Mindset: The New Psychology of Success*, 7.
103. Mas'uda and Amawidyati, "Cultivating Grit in Higher Education," 32–42.
104. Bashant, "Developing Grit in Our Students," 14–17.
105. Hudson et al., "Growing Grit to Produce Doctoral Persistence," 705–36. In the academic context of this chapter, *shame resilience* refers to a theory from Brené Brown describing the capacity to recover and move forward from failures, not allowing setbacks to affect one's sense of self-worth or create overwhelming doubt in one's abilities. Brené Brown, *I Thought It Was Just Me (but It Isn't)* (Avery, 2007).
106. Hudson et al., "Growing Grit to Produce Doctoral Persistence," 705–36.

107. Fitzgerald and Laurian-Fitzgerald, "Helping Students Enhance Their Grit," 52–67.
108. Bashant, "Developing Grit in Our Students," 14–17.
109. Mas'uda and Amawidyati, "Cultivating Grit in Higher Education," 32–42.
110. Fitzgerald and Laurian-Fitzgerald, "Helping Students Enhance Their Grit," 52–67.
111. Bashant, "Developing Grit in Our Students," 14–17.
112. Fitzgerald and Laurian-Fitzgerald, "Helping Students Enhance Their Grit," 52–67.
113. Bashant, "Developing Grit in Our Students," 14–17.
114. Park et al., "Perceived School Goal-Structure Predicts Growth in Grit," 120–28.
115. Barrow, letter to the editor, *American Journal of Nursing*, April 2019.
116. Heinrich, "Cultivating Grit in Law Students," 341–78.
117. Tang et al., "Longitudinal Pathways," 850–63.
118. Chan, "Servant Leadership Cultivates Grit," 12–22.
119. Lee, "Role of Grit in Organizational Performance," 1–11.

2

Hardiness, Grit, and Resilience in Military Organizations

A Leader's Toolkit

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Air Mobility Command Perspective

Understanding of the natural tension between hardiness, grit, and resilience is critical for leaders seeking to develop combat-ready organizations. While hardiness supports getting through tough, unchangeable things, grit provides the tenacity to continually fight for better outcomes. Both are necessary to the resilience needed in military organizations and neither are easily developed. Leaders should continually be aware of the influence they have to shape their organization's culture and must recognize that no amount of grit or hardiness will be able to compensate for the commander's role of supporting, sustaining, and equipping their Airmen. Creating an environment focused on growth, self-awareness, and adaptability may outline the path needed to develop the grit and hardiness our Airmen will need in the next fight.

Introduction

In the 2022 *National Security Strategy* (*NSS*), President Biden stressed that the United States is in a "decisive decade" in which America will face unique challenges determining its future.[1] Building on the theme set by the *NSS*, the 2022 *National Defense Strategy* identifies the People's Republic of China (PRC) as the pacing threat for the United States military, highlighting that the PRC's military capabilities are formidable now and only becoming more advanced.[2] The growth of the PRC threat has captured the attention of political and military leaders in the United States. They acknowledge the need for change to avoid the US being overcome by the PRC. After the

attacks of 9/11, the US shifted its focus to fighting and countering violent extremist organizations (VEO). A generation of military leaders learned lessons and formed ideas based on the fighting they did in Afghanistan, Iraq, and other areas in the Middle East. All the while, the PRC was quietly building its influence and its military, forming a strategy designed to compete with the US for global power. The battleground and character of future conflict will differ from what the current generation of leaders faced in the "countering-VEO" era. For this reason, military leaders of all ranks need to prepare in new ways to face future challenges and prepare themselves and their organizations for the likelihood of high-intensity conflict not seen since World War II. Leaders must ensure that they and their organizations are resilient and capable of rebounding from hardship.

In "The Case for Change: Optimizing the Air Force for Great Power Competition," Gen David Allvin, the chief of staff, United States Air Force (CSAF), drives home the urgency with which the Air Force must act to confront the new strategic environment.[3] Building on the momentum established in "Accelerate Change or Lose," published in 2020 by Gen Charles Q. Brown,[4] Allvin stresses that we must "follow through now" because the Air Force is out of time.[5] Further, Allvin calls out the need for a resilient, adaptable institution and says that the Air Force needs to develop its people as one of four main efforts to achieve a resilient institution. Specific to the future fight is the need to cultivate Mission Ready Airmen (MRA) or "individuals with the expertise and versatile skillsets required to win in various operational scenarios."[6] MRA, formerly known as Multi-Capable Airmen (MCA), are deliberately developed from the beginning of their training pipelines and share a common understanding of the threat environment they will face.

The message is clear from the highest levels of government that the future will be challenging, and the Air Force must prepare its Airmen now to be ready to face and overcome these challenges. Success in these endeavors will require following through and staying committed to mission goals to maintain momentum. That is why this change is necessary. What is not as clear is how to achieve that goal. How will the Air Force build and maintain a resilient organization, prepare its leaders to be more resilient, and cultivate resilience in its teams? What specific efforts are needed to achieve a more resilient organization? To answer these questions, a closer examination of what resilience is and how it can be developed in an organization becomes necessary, especially within the context of preparing for what the Air Force could face

in future conflicts. Exploring concepts such as grit and hardiness may help leaders and organizations strengthen Airmen's resilience.

Purpose and Thesis

A current understanding of resilience is often connected to the number of suicides in an organization. For example, if the suicide rate is low, it may be assumed that resilience training is working. However, if there is an uptick in the number of suicides, then it is believed that an organization's efforts to promote resilience are lacking. This narrow lens limits the conversation on resilience and can even confuse leaders into thinking resilience is unimportant or unattainable. A better understanding of organizational resilience and factors that contribute to it can lead to healthier organizations. However, focusing on the whole concept may detract from the effectiveness of efforts to build resilience at a time when it is needed most. By focusing not just on the larger "whole elephant" concept of resilience but also on smaller, bite-size pieces, the Air Force might identify paths to cultivating such pieces in its leaders and, in turn, its organizations, thus improving overall resilience.

This study explores two such bite-size concepts: grit and hardiness. Both have the potential to better inform the conversation on resilience happening in the Department of Defense. More importantly, it is possible that through understanding, embodying, and cultivating grit and hardiness, leaders can strengthen resilience in organizations. Research suggests that resilience, hardiness, and grit are unique, separate concepts that should be individually studied and supported.[7] Each can be fostered within a person or an organization, and there is power in knowing what each one is and how to employ it effectively.

Defining Grit, Hardiness, and Resilience

Grit

What is known about grit and how it is conceptualized comes largely from what society has shown. Ariana Stokas captures essential elements of grit adopted over time by society, coming mostly from popular culture in the US.[8] Specifically, she relates attributes of grit to what has

been learned from cowboys, boxers, and former presidents. She highlights the courage of a cowboy, the enduring physical suffering of a boxer, and the strenuous life of a president. While the courage and ability to endure through hardships are certainly aspects of grit, there is more to grit than captured by its popular understanding. Angela Duckworth is a leading researcher on grit, and her book, *Grit: The Power of Passion and Perseverance*, brought the concept of grit into the spotlight. Duckworth defines *grit* as passion combined with perseverance toward achieving a top-level goal.[9] Further, she argues that grit can allow us to accomplish more through our passion and perseverance than our innate talent alone. She believes that while talent is important, it can distract from other important factors like effort. Duckworth wrote, "Without effort, your talent is nothing more than your unmet potential. With effort, talent becomes skill and, at the very same time, effort makes skill productive."[10]

Grit promotes an individual's ability to continuously persevere and work hard on highly valued goals. It is grounded in the individual's passion for a long-term goal.[11] Additionally, gritty individuals are inclined to uphold effort and interest over an extended period despite failure or adversity, while non-gritty individuals lose interest or are distracted.[12] These same attributes could be applied to organizations. A gritty organization sets highly valued goals and works hard to achieve them even in the face of adversity.

Hardiness

The US military does not have a definition for hardiness, but common definitions highlight its applicability to military life and organizations. *Hardiness* has been defined as the ability to adapt and perform under stressful conditions while remaining emotionally healthy and stable.[13] It involves a mindset geared toward "gaining the courage and knowledge to persevere through hardships."[14] Celeste Luning and Andrew Ledford offer that hardiness "requires a persistent mindset to get through great hardship, or 'the grind,' for long periods of time."[15]

Hardiness represents the characteristic way a person approaches and interprets experience.[16] It is usually described in terms of three dispositional tendencies: commitment, control, and challenge. *Commitment* is defined as one's sense of meaning and purpose encompassing self, others, and work.[17] *Control* is a sense of autonomy and ability to influence one's own destiny.[18] *Challenge* is a zest for life and living that leads

one to perceive changes as exciting and opportunities for growth rather than threats to security or survival.[19] The "three C's," as these are called, guide our understanding of hardiness in a resilience framework.

Paul Bartone, Dennis Kelly, and Michael Matthews define *hardiness* as a "constellation of personality qualities found to characterize people who remain healthy and continue to perform well under a range of stressful conditions."[20] They also see hardiness as a mindset, one in which people see life as "meaningful and worthwhile, even though it is sometimes painful and disappointing."[21] Particularly powerful is the aspect of control. In a study at West Point, "hardiness-control," the belief that one can influence events as opposed to a sense of powerlessness, showed a significant correlation with military performance and the adaptability of military leaders.[22] Leader adaptability will be crucial in the complex conflicts of the future foreseen by our senior political and military leaders.

Resilience

Resilience has been studied in many contexts; much of its early scholarship dates to the 1960s and is largely credited to Norman Garmezy, a clinical psychologist who studied schizophrenia among patients and the children of parents diagnosed with schizophrenia. During his research, Garmezy noticed that even in the face of adversity or difficult circumstances, some of the adult patients he worked with had surprisingly functional lives and 90 percent of children of with parents diagnosed with schizophrenia exhibited normal functioning.[23] These results indicated to him a level of innate resilience that warranted further study. George Bonanno expanded resilience research through a study of people who had recently experienced the loss of a spouse. Surprisingly, he found that nearly half (45.9 percent) of the participating population reported no debilitating grief at all.[24] He used the term *resilient* to describe individuals who were "capable of functioning with a sense of core purpose, meaning, and forward momentum in the face of trauma."[25] Indeed, this resilient cohort felt great sadness after their loss but then described moving on and adapting and growing from the loss.

In some ways, resilience is common. Bonanno found that most individuals exposed to traumatic events do not exhibit chronic post-traumatic stress disorder (PTSD) symptom profiles and that in some cases, the majority show the type of healthy functioning suggestive of possessing resilience.[26] Everyone shares a common stress-response system. So why

do some people use it more effectively than others? Bonanno believes one of the central elements to the answer is perception. He argues that events are not traumatic unless they are perceived or experienced as traumatic or, as Maria Konnikova explains, "The experience is not inherent in the event; it resides in the event's psychological construal"—the way an individual interprets it.[27] So, living through adversity does not guarantee future suffering. What matters is whether the experience of adversity becomes traumatizing. The good news is that positive construal can be taught or, as Konnikova says, "The cognitive skills that underpin resilience, then, seem like they can indeed be learned over time, creating resilience where there was none."[28]

We see echoes of Garmezy and Bonanno's work in today's resilience definitions. The Air Force defines *resilience* as the ability to withstand, recover, or grow (or all three) in the face of stressors and changing demands.[29] While there are a myriad of resilience definitions across disciplines and domains, the notion of adapting and growing despite adversity and maintaining forward momentum is a common theme shared by many.

One method for recognizing resilience is through its operationalization. In this context, consistent themes include the propensity to (1) bounce back from a negative experience, (2) possess positive coping skills and a positive outlook, (3) have healthy homeostasis and adjustment after significant adversity, (4) protect one's psychological health and mental stability, and (5) balance the positive and negative.[30] Other operational, action-oriented definitions include a stable trajectory of healthy functioning after a highly adverse event, a conscious effort to move forward in an insightful, integrated positive manner as a result of lessons learned from an adverse experience, and a process to harness resources to sustain well-being.[31]

Definitions of organizational resilience offer us an additional lens for understanding and operationalizing this concept. Stephanie Duchek defines *organizational resilience* as "an organization's ability to anticipate potential threats, to cope effectively with adverse events, and to adapt to changing conditions."[32] She highlights that resilience is not just an outcome and can be broken into three stages: before, during, and after adverse events.[33] Before an event, there is the anticipation stage in which an organization can prepare for adversity using its prior knowledge base and closely observing the threat environment. During an event, there is coping, which includes developing and implementing solutions to the adverse event and relies on social resources, such as the organization's culture and

relationships. Finally, after the event in the adaptation phase, reflecting and learning must be used to bring about change, which requires strong leadership and courage to implement. Like other continuous improvement models—such as the observe, orient, decide, act (OODA) loop often referenced in the military—Duchek's model is adaptable to the immediacy of the event or threat.[34] For example, organizations may need to compress or work through multiple steps simultaneously. This model could be a useful framework for military organizations.

Similarities, Differences, and Overlap

Grit, hardiness, and resilience are all concepts attributed to positive psychology. Positive psychology centers on the "character constructs, strengths, and behaviors that foster individual and community thriving" and assists individuals in "moving beyond surviving to thriving."[35] Researchers believe that grit, hardiness, and resilience are three distinct constructs and, therefore, should not be used interchangeably.[36] The distinctions bring clarity to a discussion in which these constructs are often used in place of one another. Understanding the distinctions will help guide further research into grit, hardiness, and resilience and help leaders better recognize and operationalize these concepts while facing and supporting others in difficult situations.

Important distinctions exist between grit, hardiness and resilience:

- Resilience generally emerges from hardship, trauma, or adversity, while grit and hardiness do not require adverse environments.[37]
- Grit is different from resilience and hardiness due to the continual effort and passion placed on goal attainment, which is not required for resilience or hardiness.[38]
- Hardiness requires a positive mindset during difficult experiences, not a defining factor in grit or resilience.[39]

Furthermore, resilience is generally seen as a process or outcome while grit and hardiness are considered personality traits. The relative lack of complexity in grit and hardiness makes them easier to operationalize as compared to resilience.[40]

Returning to the idea that resilience can be specific to a context, domain, or phase, it follows that the three concepts are not always linked. For example, a gritty person may display a degree of resilience if, to achieve their goal, they had to rebound from adversity. However, resilience is much broader. So, a resilient person may not necessarily

be gritty in all contexts or domains.[41] Likewise, hardiness is defined by enduring external circumstances and not passion for a goal. Therefore, an individual might be hardy but not necessarily gritty in all cases. While not required, possessing some level of all three is likely best. Leaders who can enact and cultivate hardiness and grit in their organizations will likely also strengthen their resilience.

One common characteristic of grit, hardiness, and resilience is that they can all be developed or improved. Duckworth found that grit grows over time, sometimes due to the cultural era in which someone grew up and sometimes because people learn more life lessons as they grow older.[42] Both are true to an extent and may vary by person, but the point remains that grit is not entirely fixed.[43] Likewise, hardiness can be learned. Through interviews with employees of a telecommunications company that experienced significant upheaval, one scholar concluded that hardiness is learned versus inborn.[44] The employees who survived and thrived through turmoil described their early life as stressful, suggesting that overcoming early hardship played a role in their later resilience.

Maria Konnikova examines the work of developmental psychologists such as Norman Garmezy, Emmy Werner, and George Bonanno and concludes that resilience is a set of skills that can be taught.[45] Prior to Garmezy's work, most research on adversity looked at areas of vulnerability rather than strength. Garmezy's work opened the door to the study of protective factors: the elements of an individual's background or personality that could enable success despite the challenges they faced.[46] Werner followed a group of nearly 700 children from birth to their third decade of life, monitoring them for exposure to stress. In the "at-risk" group, about one-third of the study's population, she searched for elements that might predict resilience. She found that some elements had to do with luck (supportive caregiver, etc.) but that many others pertained to how the children responded to the environment. From a young age, resilient children tended to "meet the world on their own terms." The resilient children had an "internal locus of control: they believed that they, and not their circumstances, affected their achievements."[47] Werner learned also that resilience could change over time. Some children who were not resilient early on learned the skills of resilience. They were able to overcome adversity and flourish.

It is notable that grit and hardiness are only two of potentially many factors that can be fostered within individuals and organizations to help increase resilience. By themselves, they are also not the only determinants for success or performance. Marcus Credé, Michael

Tynan, and Peter Harms call into question the validity of grit as a predictor of success and performance.[48] In terms of performance, the authors argue there is little correlation between grit and academic success. Their analysis included seventy-three studies representing eighty-eight unique data samples and over sixty-six thousand individuals. However, the data focused only on an academic environment. The findings are well supported but are most applicable to academic performance, leaving room for investigation into the validity of grit in other domains—such as resilience. In fact, they encourage further research on grit to help develop its boundary conditions and its role in performance and success.[49] Therefore, examining the effect of grit on organizational resilience in the military is still a worthwhile endeavor.

Applying Grit and Hardiness to Organizational Resilience

Understanding resilience is critical to determining how to apply it in an organization. We know that organizations comprise individuals or groups of individuals and that the organization itself is often part of a larger organization, which is part of a greater community, society, or culture. Each of these levels is important. Interventions targeted at any one of these levels will impact functioning at other levels.[50] Consequently, enhancing the resilience of an individual could positively impact the group or even the organization. Likewise, a structural change at the organizational level to promote resilience could positively impact the individual and group levels. This same idea can be extrapolated to the concepts of grit and hardiness.

Andrew Zolli and Ann Marie Healy considered resilience patterns across a range of geographies, disciplines, and contexts. They learned how individuals, groups, and communities can bolster their resilience by embracing connectedness, collaboration, and cognitive diversity.[51] Further, they highlight the need for organizations to constantly map their fragilities, rehearse the future, and ensure strong feedback loops. While doing these things boosts an organization's posture of resilience, remembering that there are no finish lines or silver bullets when it comes to resilience is important. Resilience efforts must be "continuously refreshed and recommitted to" every day.[52]

Toolkit Action #1: For your organization, constantly map fragilities, rehearse the future, and ensure strong feedback loops.

In the work of Dusya Vera et al., the authors argue that it takes both positive leadership attributes and organizational capabilities for an organization to rebound from adversity and thrive despite adversity.[53] They believe that rather than focusing on the negative (the flaws of a system and treating those), organizations should focus on positive features that can build organizational resilience, such as social capital and relationships, communication, and psychological capital. To set conditions for thriving, Vera et al. suggest that an organization combine positive leadership resources—including a positive climate, relationships, communication, and meaning—with organizational resilience capabilities, such as assessing, accepting, and adapting (the three A's).[54] The three A's help an organization amplify its positive resources, allowing it to thrive in a dynamic environment.

Toolkit Action #2: Set conditions to thrive despite adversity: (1) positive climate, (2) positive relationships, (3) positive communication, (4) positive meaning (or purpose).

Grit

Duckworth discusses the application of grit and growing it in organizations. She tells the story of Pete Carroll and the culture he created with the Seattle Seahawks, where the focus is on mindset and the belief in yourself to "push beyond what you can do today so that you are a little better tomorrow."[55] This mindset permeates all aspects of life for the team and leads to success on the field. Additionally, Duckworth notes four common psychological assets among individuals she labels "paragons of grit."[56] The first is *interest* or an intrinsic enjoyment of what you do. The second is *practice*, devoting yourself wholeheartedly to fluency in the skill you want to master. The third asset is *purpose*. Purpose is the conviction that your work matters, and it ripens passion. And the fourth asset is *hope*. Hope feeds perseverance. Military organizations could apply and adopt these tenets. Ideas like building a gritty culture, focusing deliberate practice, and instilling core values translate to and resonate well in the military.

Toolkit Action #3: Increase the grittiness of your organization by modeling and instilling interest, practice, purpose, and hope.

In 2015, a US Army white paper examined grit from individual and organizational perspectives. The work acknowledged that research clearly identifies grit as a personality trait positively related to persistence of effort and goal attainment.[57] It also highlights the potential need for Soldiers and leaders to have grit in developmental and operational capacities. For development, the authors recommend creating a functional definition of *grit*, looking for realistic virtual training opportunities, and investigating the inclusion of grit in assessments. For operations, the white paper discussed using personality traits, including grit, to help create teams tailored for specific tasks. These teams would be assigned to specific mission sets in the future operating environment based on their unique characteristics.[58] This idea could be applied to the MRA concept when considering future conflict by evaluating personality traits and using them to build balanced teams.

With its structure and focus on mission accomplishment, the military provides a unique opportunity to explore the application of grit in an organization. In a study with military officers, Luning et al. discovered common themes indicating that a culture of organizational grit in the military may already exist.[59] They conducted fourteen exploratory interviews with a diverse group of military officers, all of whom had led a unit in an operational or tactical warfighting environment. The findings showed "resilience-determination" as one of the factors that military officers perceive as part of a culture of organizational grit. Resilience-determination is the idea that there is an ability to collectively recover from setbacks and a determination to do whatever it takes to complete a mission.[60] Further, Luning et al. suggest that researchers may be able to develop a road map to measure and build organizational grit, helping organizations thrive in a complex environment.[61]

In applying grit to organizational resilience, one must be attentive to the potential pitfalls.[62] There is a risk of organizations seizing on trendy research, bringing in consultants to conduct training and lead seminars on "grit" without first getting real clarity on end goals or giving thorough, thoughtful consideration to how such training would realistically make a difference. This narrow approach could introduce what psychologists call the fundamental attribution error or "the tendency to overvalue personality-based explanations for observed behaviors and undervalue

situational explanations."[63] In other words, leaders risk attributing poor performance to a lack of grittiness without considering whether a lack of critical support in the workplace could be to blame.[64]

Hardiness

Hardiness presents potential upsides in the field of military operations. It has been shown to be a moderator to combat exposure stress in Gulf War Soldiers; a stress buffer in other military and security groups, including US Army casualty assistance workers; and an aid to psychological well-being in severely wounded service members.[65] It even correlates with protecting against the development of PTSD symptoms in persons with extensive military experience.[66]

A study of Army Survivor Assistance Officers (SAO) who assisted families of the deceased after a 1985 plane crash in Gander, Newfoundland, that killed 284 US Soldiers found that hardiness served as a modulator to the deleterious impact of stress.[67] The study revealed that the support of work supervisors (commanders) was an important resource for many SAOs and even seemed to protect individuals from related psychological and physical illnesses.[68] That is, SAOs high in social support and hardiness remained healthy under prolonged stress, while those low in these resources were at more risk for illness.

Toolkit Action #4: Be supportive. It can protect individuals in your organization from psychological and physical illnesses associated with prolonged operations in stressful environments.

In a separate study, Bartone examined hardiness as a potential protective variable among Army reserve personnel mobilized for the Persian Gulf War. Study results suggest that hardiness can protect against the ill effects of stress, particularly under high and multiple stress conditions.[69] He found that hardy people tend to interpret stressful and painful experiences as a normal aspect of existence. This result may indicate that the higher the hardy attitudes of personnel before leaving on a mission, the lower the likelihood that life-threatening stresses in military engagements will lead to post-traumatic stress disorders.[70]

In 2021, Bartone and Stephen Bowles conducted a study of seriously wounded service members and their spouses. While previous research had looked at the role of hardiness as a moderator to combat stress, this study focused on the role of hardiness in predicting post-traumatic

growth (PTG) and psychological well-being. The results provide evidence that psychological hardiness was a significant resilience factor for the injured Soldiers and their spouses, facilitating positive coping and contributing to PTG and well-being.[71]

Finally, hardiness might help stave off some of the negative psychological symptoms after many years in the military. In 2013, after over a decade of war in Iraq and Afghanistan, Sandra Escolas et al. conducted a study to identify factors that protect Soldiers from developing PTSD symptoms. They hoped to find protective factors that could be augmented through training to help veterans learn to cope with what they endured during their military service and possibly prepare Soldiers for stressors they may face in future deployments. The results suggest that psychological hardiness may have significant protective value against the stress of extended military service.[72] This result, along with the findings of previous studies on hardiness, show that hardiness has a clear applicability to military operations and could be beneficial in future high-end conflicts.

The Leader's Role in Building Organizational Resilience

In their article "Organizational Grit," Thomas Lee and Angela Duckworth recall Ralph Waldo Emerson's observation that organizations are the lengthened shadows of their leaders.[73] Therefore, leaders should personify the characteristics they wish to see in their organizations. They can shape and influence the culture and climate of the organization through action. A leader seeking a culture of grit or hardiness should strive to embody and demonstrate those traits.

Culture

Culture is integral to building organizational resilience. Daniel Coyle explored the role of culture, noting that many successful cultures were forged in moments of crisis.[74] Resilient organizations use setbacks or hardship to crystallize their purpose. But building purpose is not as easy as just setting a mission statement and a vision. It is a "never-ending process of trying, failing, reflecting, and, above all, learning."[75] Coyle also discussed the essence of culture in an organization. He defined *culture* as "a set of living relationships working toward a shared goal.

It's not something you are. It's something you do."[76] A shared goal can help galvanize an organization's culture.

Similarly, in a case study of grit and gritty organizations in the medical field, Lee and Duckworth explain that organizations must share a high-level goal.[77] By studying integrated practice units—the gold standard in team health care—they found that the hallmarks of gritty organizations are commitment to a shared purpose, a focus on constant improvement, and mutual trust.[78] If everyone's goals are not aligned, then a culture will not be gritty. They also recognize that gritty organizations have a "restlessness with the status quo and an unrelenting drive to improve."[79] These are attributes worth pursuing in the culture of military organizations as well.

Coyle offers several practical ways to create a high-purpose, resilient culture in an organization.[80] First, you must "name and rank your priorities."[81] Listing organizational priorities forces you to wrestle with the choices that define your identity. He found that most successful groups end up with only a small number of priorities (five or fewer), and usually at the top of the list is a focus on relationships and how group members treat one another. Additionally, Coyle urges leaders to "be ten times as clear about your priorities as you think you should be."[82] He states that "leaders are inherently biased to presume everyone sees things the way they do, when in fact they don't."[83] Therefore, the leader must not be shy about overcommunicating the priorities. Finally, Coyle suggests focusing on behaviors that set a high bar to help translate abstract ideas (mission, vision) into concrete terms.[84] A leader can do this by focusing on and rewarding the small, effortful behaviors that drive home the organization's mission. Coyle gives an example from the men's hockey team at Quinnipiac University in Connecticut, where the coach focuses on the mundane, often fruitless behavior of back-checking or "rushing back to the defensive end in response to the other team's attack—basically, chasing them down," spotlighting when players do it well and it pays off.[85] Setting priorities or goals, communicating them, and focusing on effort (no matter the size) can all contribute to the culture and thus resilience of an organization. Not surprisingly, these ideas support Duckworth's view of a gritty organization.

Toolkit Action #5: Cultivate a high-purpose culture: (1) name and rank your priorities (five or fewer), (2) overcommunicate your priorities, and (3) reward bar-setting behaviors.

One caution in implementing grit or hardiness as a measure of resilience is the potential ethical quagmire of perpetuating the belief that individual effort will necessarily equal success.[86] When considering the impact of grit or hardiness, the culture or conditions in an organization must be evaluated. The soil must be fertile for the effects of grit and hardiness to take root and translate to resilience. The leader must develop a culture of success and should not expect individuals to dig in and get the job done if they do not have access to the necessary resources. Rather than harnessing the power of perseverance toward a goal, this situation would force the need for grit because of a lack of support.[87] This scenario should be avoided. In a military organization, the responsibility of ensuring proper resources exist to complete the mission lies with the unit's leadership, specifically the commander.

Climate

Culture and climate are often mistakenly viewed as similar constructs, when, in fact, climate relates more closely to the leader's tangible actions and behaviors. Leaders can directly reflect the climate or personality of organizations.[88] Thus, their strength of character and resolve are integral to building resilient organizations.

Luning and Ledford argue that grit and hardiness "serve as quintessential traits for leading with character and resolve."[89] They highlight grit and hardiness as distinct traits that operate in a symbiotic manner. The passion, perseverance, and consistency of grit combine with the commitment, challenge, and control of hardiness to help a leader build meaning and purpose in an organization. A leader's actions serve as a representation of how the leader expects others to respond in the face of setbacks.[90] This is akin to "leadership by example" for resilience. The grit of a leader can help "establish a clear sense of identity for the organization centered around the mission," while hardiness "helps followers remain positive in the face of obstacles."[91] Further, Bartone, Charles Barry, and Robert Armstrong argue that "leaders play a key role in influencing the mental hardiness of their followers, which in turn increases the resilience of the team and organization."[92] Thus, leaders who embrace and exemplify grit and hardiness are more likely to create a climate that inspires others to do the same and, in turn, increase the organization's overall strength and resilience.

Additionally, a leader's self-awareness might contribute in a positive way toward organizational resilience. In *Primal Leadership*, Daniel

Goleman, Richard Boyatzis, and Annie McKee highlight a study of people trying to predict the weather given clues from meteorological data.[93] They found that cumulative learning occurs through the ongoing experience of life's trials and errors. The brain constantly registers decision rules about what works and what does not, soaking up life's lessons to help us better prepare for the next time we face a similar challenge or setback.[94] If this is true for the leader, so it is for the individuals under that leader's charge. This same trend is noted by Bartone, Barry, and Armstrong regarding hardiness and processing stressful experiences.[95] Thus, a leader who demonstrates positive leadership during a period of adversity, seeking not just to survive but thrive, could help build resilience within the organization at the time and also instill that positive memory for others in the organization.

A growth mindset can help improve climate and foster organizational resilience. Stanford psychologist Carol Dweck defines a *growth mindset* as "a belief that abilities can be developed through hard work and feedback, and that major challenges and setbacks provide an opportunity to learn."[96] This perspective coincides with Maddi et al.'s characterization of *hardiness* as "a pattern of attitudes and skills that facilitates turning adversity into opportunity, thereby enhancing performance and health."[97] A growth mindset can also help a leader shift from feeling burdened by challenges and instead be energized by the opportunities they present.

Toolkit Action #6: Encourage a growth mindset. Learn from setbacks or hardship—use them to crystallize purpose.

Action

Luning and Ledford offer three steps to developing grit and hardiness: (1) identify what is meaningful, (2) determine driving forces and purpose, and (3) learn the art of mindfulness.[98] Applied to a military organization, this framework could be seen as clearly identifying core values; determining purpose through a mission statement, vision, and priorities; and then allowing time to think ahead of problems. An ongoing step in this process is to continually self-evaluate. Perpetual evaluation is considered a strategy for enhancing grit and hardiness.[99] These steps are basic but essential tools for a leader's toolkit to build organizational resilience.

Toolkit Action #7: To develop grit and hardiness: (1) identify what is meaningful, (2) identify driving forces/purpose, and (3) learn the art of mindfulness.

An organization's mission, vision, and objectives underlie organizational resilience. These are things the leader sets and can control. Luning and Ledford state that "underlying both grit and hardiness are two foundational elements: (1) meaning and purpose, and (2) mindfulness."[100] Meaning and purpose provide the drive of the organization to persist, while mindfulness is required to sustain the ability to recover in the face of endless obstacles and adversity.[101] In a military organization, leaders must set the path (mission statement, vision, priorities) for the organization and stay focused on that goal even through adversity or setbacks. They must take time to think and be mindful to help avoid becoming overwhelmed by day-to-day obstacles.

Toolkit Action #8: Lead by example by modeling resilience. Take time to think and be mindful. Avoid being overwhelmed by day-to-day obstacles.

In the model proposed by Luning et al., several elements merge to build a culture of organizational grit. The elements are core values, organizational growth mindset, deliberate practice, organizational resilience-determination, mission accomplishment, team unity, and professional pride. For application to the military, it is helpful to separate these elements into those assumed to be inherent in military service and those that require more leader focus and attention.

Innate or inherent elements are core values, mission accomplishment, professional pride, and deliberate practice. These elements exist naturally in a military organization. Each service has a set of core values, each organization has a mission and practices regularly to succeed in that mission, and, in general, military service is respected in the United States and gives a sense of pride to its members. This inherency relieves the leader of the complete responsibility to instill, grow, and promote these important elements, given that to an extent they are already in place.

Conversely, developing an organizational growth mindset, team unity, and organizational resilience-determination require a leader's attention. A growth mindset involves a willingness from the organization to learn. The leader can encourage this mindset by ensuring setbacks

or mistakes are seen as opportunities to grow. In larger organizations, maintaining team unity requires substantial effort. A positive, inclusive culture helps the organization accomplish the mission as a unified team rather than as disconnected groups. Finally, the determination element of grit is shown to highly correlate to organizational resilience, a positive factor in a culture of grit. A leader can foster resilience by setting a positive culture focused on achieving a long-term goal and oriented to handling setbacks along the way.

Toolkit Action #9: Build a roadmap for organizational grit/resilience. Include core values, mission accomplishment, team unity, professional pride, growth mindset, deliberate practice, and determination.

Mission Command

A leader's efforts to enhance organizational resilience through grit and hardiness support the concept of mission command. The Air Force defines *mission command* as "a philosophy of leadership that empowers Airmen to operate in uncertain, complex, and rapidly changing environments through trust, shared awareness, and understanding of commander's intent.[102] Mission command is dependent on collective trust.[103] This trust can come from a culture founded on relationships formed with positive factors like grit, hardiness, and resilience. To prepare an organization to support a mission command culture, a leader must foster five C's: *character*, *competence*, *capability*, and *cohesion*, with the goal of building the *capacity* required.[104]

Overlaying the three C's of hardiness (commitment, challenge, control) with the five C's of mission command reveals significant overlap and synergy. Commitment helps build the mutual respect and trust needed with character. Openness to challenge and the willingness to develop from opportunities relate directly to building competence and capability. Belief in the ability to control events helps build cohesion through buy-in and agency. Similarly, sharing passion toward a common goal and perseverance, both aspects of grit, can permeate unit training, enhancing competence and capability and promoting character and cohesion. Thus, a leader looking to build organizational resilience and align with the imperative of mission command might find grit and hardiness valuable.

Recommendations

There are benefits to organizational resilience that can be gained from grit and hardiness. Hardiness has been identified as a moderator of combat exposure stress.[105] Looking ahead to potential conflict with the PRC or another adversary in the future, attributes of grit, the ability to persist and achieve goals despite adversity, and the capacity of an organization to moderate combat exposure stress could be the difference in success or failure.

Given the potential benefits of grit and hardiness as they relate to organizational resilience, the Air Force would be wise to follow through on its investment in resilience and perhaps look at ways to responsibly generate grit and hardiness in individuals and organizations. Building resilience by leveraging grit and hardiness will not happen overnight. The Air Force should continue to expand its current efforts to ensure a resilient force.

Below are specific recommendations for Air Force leaders that will help develop more resilient individuals and organizations ready to meet the challenges the joint force could face in the not-too-distant future:

- Incorporate resilience discussions in squadron commander and senior enlisted leader preparation courses. Include grit and hardiness along with resilience.
- Make "Leader's Toolkit for Strengthening Organizational Resilience Through Grit and Hardiness" (in the appendix to this chapter) available to Air Force leaders.
- Include grit and hardiness as key elements of organizational resilience at the appropriate levels of Air Force professional military education.
- Further investigate the benefits of positive psychology constructs like grit and hardiness in the context of the high-end fight with a peer adversary. Grit and hardiness align with the imperatives of mission command and Mission Ready Airmen.
- Review existing resilience policies and regulations to determine how they contribute to resilience under the stress of complex operations. Look for ways to incorporate the concepts of grit and hardiness.

- Promote cohesiveness of Air Force–wide organizational resilience efforts. Create Air Force operational definitions of *grit*, *hardiness*, and *organizational resilience*.

Conclusion

The nation's top civilian and military leaders have sounded the alarm. To navigate through what presumably will be a decisive decade, the Air Force must follow through on the change needed to confront the new and complex geostrategic environment. The next generation of military leaders may encounter challenges the US military has not faced in almost eighty years. The future fight will require resilient, Mission Ready Airmen and the support of resilient organizations. These goals are attainable. Grit emphasizes working toward goals, and hardiness helps Airmen persevere through hardships. By better understanding resilience and operationalizing grit and hardiness in leaders and organizations, the Air Force can begin to take small bites out of this elephant-sized problem.

Appendix A

Leader's Toolkit for Strengthening Organizational Resilience Through Grit and Hardiness

The character of future conflict will be different than what our current generation of leaders have faced in the countering violent extremist organization (VEO) era. Military leaders of all ranks need to prepare in different ways to face the challenges of the future. They must ensure that they and their organizations are resilient—that they can bounce back from hardship. A better understanding of organizational resilience can lead to healthier organizations. It is possible that through understanding, embodying, and cultivating grit and hardiness, leaders can strengthen organizational resilience.

Definitions

- *Grit* is passion combined with perseverance toward achieving a top-level goal.[1]
- *Hardiness* is the ability to adapt and perform under stressful conditions while remaining emotionally healthy and stable.[2]
- *Resilience* is the ability to withstand, recover, and grow in the face of stressors and changing demands.[3]
- *Organizational resilience* is an organization's ability to anticipate potential threats, to cope effectively with adverse events, and to adapt to changing conditions.[4]

Key Concepts

- Grit, hardiness, and resilience are three distinct constructs and should not be used interchangeably.[5]
- Resilience is an ongoing process and should be routinely refreshed and recommitted to.[6]
- The higher the hardy attitudes of personnel before leaving on a mission, the lower the likelihood that life-threatening stresses in military engagements will lead to post-traumatic stress disorders.[7]

- Effort counts twice. With effort, talent becomes skill, and, at the very same time, effort "makes skill productive." Grit can allow us to accomplish more than our innate talent alone can.[8]
- Leaders who demonstrate hardiness are more resilient when facing stressors and challenges.[9]
- A growth mindset—a belief that abilities can be developed through hard work and feedback and that challenges and setbacks provide an opportunity to learn—can foster resilience.[10]
- Hardiness has been identified as a moderator of combat exposure stress.[11]
- Enhancing organizational resilience through grit and hardiness supports the concept of mission command and Mission Ready Airmen.

Actions

- For your organization, constantly map fragilities, rehearse the future, and ensure strong feedback loops.[12]
- Set conditions to thrive despite adversity: (1) positive climate, (2) positive relationships, (3) positive communication, and (4) positive meaning/purpose.[13]
- Increase the grittiness of your organization by modeling and instilling interest, practice, purpose, and hope.[14]
- Be supportive. It can protect individuals in your organization from psychological and physical illnesses associated with prolonged operations in stressful environments.[15]
- Cultivate a high-purpose culture: (1) name and rank your priorities (five or fewer), (2) overcommunicate your priorities, and (3) reward bar-setting behaviors.[16]
- Encourage a growth mindset by learning from setbacks or hardships and using them to crystallize purpose.[17]
- Develop grit and hardiness: (1) identify what is meaningful, (2) identify driving forces/purpose, and (3) learn the art of mindfulness.[18]
- Lead by example by modeling resilience. Take time to think and be mindful. Avoid being overwhelmed by day-to-day obstacles.[19]

- Build a road map for organizational resilience. Include core values, mission accomplishment, team unity, professional pride, a growth mindset, deliberate practice, and determination.[20]

Looking ahead to potential conflict, the ability to persist and achieve goals despite adversity (which may be extreme) and the ability of an organization to moderate combat exposure stress could be the difference in success or failure. To prepare, leaders can strengthen organizational resilience now, in peacetime, by understanding, embodying, and cultivating grit and hardiness.

Notes

(Endnotes are presented primarily in shortened form. For more information, see the appropriate entry in the bibliography.)

1. Biden, *National Security Strategy*, 2–3.
2. Department of Defense, *National Defense Strategy*, 1–3.
3. Department of the Air Force, *Case for Change*, 2.
4. Brown, *Accelerate Change or Lose*.
5. Department of the Air Force, *Case for Change*, 12.
6. Department of the Air Force, 8.
7. Georgoulas-Sherry, "Distinctions of Positive Constructs," 30.
8. Stokas, "Genealogy of Grit," 513.
9. Duckworth, *Grit: The Power of Passion and Perseverance*, 62.
10. Duckworth, 51.
11. Duckworth and Gross, "Self-Control and Grit," 319–25.
12. Duckworth et al., "Grit: Perseverance and Passion," 1087–1101.
13. Bartone, Kelly, and Matthews, "Psychological Hardiness Predicts Adaptability," 201.
14. Georgoulas-Sherry, "Distinctions of Positive Constructs," 27.
15. Luning and Ledford, "Necessity of Grit and Hardiness," 106.
16. Bartone et al., "Impact of a Military Air Disaster," 317–28.
17. Bartone et al., 319.
18. Bartone et al., 319.
19. Bartone et al., 319.
20. Bartone, Kelly, and Matthews, "Psychological Hardiness Predicts Adaptability," 201.
21. Bartone, Kelly, and Matthews, 202.
22. Bartone, Kelly, and Matthews, 205.
23. Zolli and Healy, *Resilience: Why Things Bounce Back*, 121–22.
24. Zolli and Healy, 126.
25. Zolli and Healy, 126.
26. Bonanno, "Loss, Trauma, and Human Resilience," 104–10.
27. Konnikova, "How People Learn to Become Resilient."
28. Konnikova.
29. Air Force Instruction (AFI) 90-5001, *Integrated Resilience*.
30. Georgoulas-Sherry, "Distinctions of Positive Constructs," 27.
31. Southwick et al., "Resilience Definitions, Theory, and Challenges, 1–14.

32. Duchek, "Organizational Resilience," 220.
33. Duchek, 223.
34. Phillips, "Revisiting John Boyd and the OODA Loop," 8–11.
35. Georgoulas-Sherry, "Distinctions of Positive Constructs," 26.
36. Georgoulas-Sherry, 26.
37. Maddi et al., "Role of Hardiness and Grit."
38. Georgoulas-Sherry, "Distinctions of Positive Constructs," 28.
39. Georgoulas-Sherry, 29.
40. Georgoulas-Sherry, 29.
41. Department of the Army, *Grit: A Look at Individual and Organizational Passion and Perseverance*, 8.
42. Duckworth, *Grit*, 89.
43. Duckworth, 89.
44. Maddi, "Relevance of Hardiness Assessment and Training," 67.
45. Konnikova, "How People Learn to Become Resilient."
46. Konnikova.
47. Konnikova.
48. Credé, Tynan, and Harms, "Meta-Analytic Synthesis of the Grit Literature," 492–511.
49. Credé, Tynan, and Harms, 492–511.
50. Southwick et al., "Resilience Definitions, Theory, and Challenges," 1–14.
51. Zolli and Healy, *Resilience: Why Things Bounce Back*, 259.
52. Zolli and Healy, 276.
53. Vera et al., "Resilience as Thriving," 2.
54. Vera et al., 2.
55. Duckworth, *Grit*, 266.
56. Duckworth, 91.
57. Department of the Army, *Grit: A Look at Individual and Organizational Passion and Perseverance*, 19.
58. Department of the Army, 20.
59. Luning et al., "Culture of Organizational Grit"
60. Luning et al., 559.
61. Luning et al., 565.
62. Stokas, "Genealogy of Grit," 515.
63. Stokas, 515.
64. SRI International, "Promoting Grit, Tenacity, and Perseverance," 43.
65. Bartone, "Hardiness Protects against War-Related Stress," 72–82; Bartone, Kelly, and Matthews, "Psychological Hardiness Predicts Adaptability," 200–210; and Bartone and Bowles, "Hardiness Predicts Post-Traumatic Growth," 500–504.
66. Escolas et al., *Protective Value of Hardiness*, 121.
67. Bartone et al., "Impact of a Military Air Disaster," 324.
68. Bartone et al., 325.
69. Bartone, "Hardiness Protects against War-Related Stress," 72.
70. Maddi, "Relevance of Hardiness Assessment and Training," 65.
71. Bartone and Bowles, "Hardiness Predicts Post-Traumatic Growth," 503.
72. Escolas et al., *Protective Value of Hardiness*, 120.
73. Lee and Duckworth, "Organizational Grit," 104.
74. Coyle, *Culture Code*, 227.
75. Coyle, 228.
76. Coyle, xix.
77. Lee and Duckworth, "Organizational Grit," 100–102.

78. Lee and Duckworth, 101.
79. Lee and Duckworth, 103.
80. Coyle, *Culture Code*, 229.
81. Coyle, 229.
82. Coyle, 229.
83. Coyle, 229.
84. Coyle, 230.
85. Coyle, 233–34.
86. Stokas, "Genealogy of Grit," 515.
87. Stokas, 522.
88. Browning, *Leading at the Strategic Level*, 336.
89. Luning and Ledford, "Necessity of Grit and Hardiness," 100.
90. Luning and Ledford, 103.
91. Luning and Ledford, 103.
92. Bartone, Barry, and Armstrong, *Leader Influence on Mental Hardiness*, 5.
93. Goleman, Boyatzis, and McKee, *Primal Leadership*, 43–44.
94. Goleman, Boyatzis, and McKee, 43–44.
95. Bartone, Barry, and Armstrong, *Leader Influence on Mental Hardiness*, 5.
96. Lee and Duckworth, "Organizational Grit," 103.
97. Maddi et al., "Hardiness Training for High-Risk Undergraduates," 43.
98. Luning and Ledford. "Necessity of Grit and Hardiness," 108–9.
99. Luning and Ledford, 105–9.
100. Luning and Ledford, 107.
101. Luning and Ledford, 107.
102. Air Force Doctrine Publication (AFDP) 1-1, *Mission Command*, 1.
103. Department of the Army, *Grit: A Look at Individual and Organizational Passion and Perseverance*, 19.
104. AFDP 1-1, *Mission Command*, 15.
105. Bartone, Kelly, and Matthews, "Psychological Hardiness Predicts Adaptability," 202.

Notes to Appendix A

1. Duckworth, *Grit*, 62.
2. Georgoulas-Sherry, "Distinctions of Positive Constructs," 27.
3. AFI 90-5001, *Integrated Resilience*, 45.
4. Duchek, "Organizational Resilience," 220.
5. Georgoulas-Sherry, "Distinctions of Positive Constructs," 26.
6. Zolli and Healy, *Resilience: Why Things Bounce Back*, 276.
7. Bartone, "Hardiness Protects against War-Related Stress," 78–80.
8. Duckworth, *Grit*, 51.
9. Bartone, Barry, and Armstrong, *Defense Horizons*, 5.
10. Lee and Duckworth, "Organizational Grit," 103.
11. Bartone, Kelly, and Matthews, "Psychological Hardiness Predicts Adaptability," 202.
12. Zolli and Healy, *Resilience: Why Things Bounce Back*.
13. Vera et al., "Resilience as Thriving," 3.
14. Duckworth, *Grit*, 91.
15. Bartone et al., "Impact of a Military Air Disaster."
16. Coyle, *Culture Code*, 229.
17. Coyle, 228.
18. Luning and Ledford, "Necessity of Grit and Hardiness," 108–9.

19. Luning and Ledford, 107–9.
20. Luning et al., "Culture of Organizational Grit," 558–61.

3

Navigating Through Generations

How Generational Study Can Strengthen Relationships in Preparation for Large-Scale Combat Operations

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Air Mobility Command Perspective

Discussions on resilience, grit, and warrior ethos cannot be had in good faith without an understanding of the differences between generations. The military faces a challenge more significant than the corporate world with the introduction of a rigid rank structure. The reality that all senior leaders belong to the same generation, one that is distinctly different from the Airmen they lead, presents a unique leadership challenge and the potential for conflict and miscommunication. It is imperative for leaders to understand the challenges, strengths, and abilities of the generation they lead and learn to adapt their leadership style to meet the needs of their Airmen. They must also remain acutely aware of the challenges and strengths their own generation brings to the table and understand how it has impacted them. Approach this chapter with openness and curiosity about the experiences that shaped the Airmen you lead and a desire to identify the strengths they bring to the table.

Introduction

Much of successful leadership in the military falls within the realm of understanding oneself and others. And yet, as society travels deeper into the twenty-first century, few could have predicted the current social environment, which seems intrinsically structured for detachment. This is a problem. For many reasons, people seem more socially and emotionally disconnected from each other. Furthermore, in the Great Power Competition era, military services are leaning toward the

potential for large-scale combat operations (LSCO). Military members face many stressors that lead to the risk of suicide and depression that could be a result of a lack of resilience. Generational study is a critical tool for enhancing resilience in service members, particularly those in leadership roles, as it will help them better understand themselves and others, including their subordinates from different generations.

When military members are tasked with conducting LSCO in high-stress environments, interpersonal skills based on mutual understanding will be crucial to achieving common goals. The challenge is quite like land navigation. In orienteering, people must become familiar with the environment they will be operating in (understand the social context), identify their current location (understand themselves), and determine where they intend to go (understand others). These variables are constantly in flux while navigating.

To become familiar with the area one operates in, it is necessary to identify key terrain, then to locate one's own position on the map in relation to these known, immovable points of the landscape. This model works as a metaphor for recognizing and responding to generational differences. Leaders can conceptually map their own generational values and experiences to "shoot an azimuth" to pinpoint where their generational position sits in relation to the values of their subordinates. Location accuracy increases significantly the more known points one uses. Taking the time to understand the key values, experiences, and perspectives of subordinate service members allows leaders to navigate the complexity of today's leadership landscape.

Generational study will benefit all military members, but it is particularly helpful for leaders in a position to enact change. For example, toxic and narcissistic leadership is a persistent problem.[1] Many authors suggest that toxic leadership results when leaders stop being personable and have limited perspectives regarding their subordinates.[2] One problem with bridging this perspective gap is that those subordinates not only have vastly different experiences but are also from a different generation. Detailed and ongoing generational study will contribute to service members effectively navigating today's complex, constantly changing military environment, strengthening relationships and enhancing resilience in preparation for LSCO. This chapter tackles the military generational problem through three separate sections describing the three currently serving generations, assessing the issue through a military perspective, and diving deeper into four key areas.

Generations

The era in which a person is born substantially influences behaviors, attitudes, values, and personality traits. While many things make each person unique and the analysis of generations here is a broad lens, recognizing generational traits can help service members better understand others and themselves. Research shows that the generation individuals grow up in affects their personality and attitudes more than does the family who raised them.[3] Learning about generational differences can help service members answer critical questions about each other, increasing mutual understanding and empathy. If not considered and understood, generational differences can create confusion and frustration in the military's rank-driven environment.

A young service member from Generation Z might ask these questions:

- Why are older service members so resistant to change and new perspectives?
- Why do older service members not realize I have a life outside of the military?
- Why are older service members so dependent on rank and position?

A strategic leader from Generation X might ask:

- Why do young service members struggle to give a timely email response?
- Why are young service members more anxious and depressed?
- Why do today's recruits seem less mature than previous recruits?

Analyzing generational traits can help service members better understand and even answer these types of questions, perhaps coming to see their differences as strengths.

What If I Don't Relate to My "Assigned" Generation?

Everyone belongs to a generation. Some people find familiarity and solidarity with their generational peers, while others find the generalizations loosely fitting and see themselves as closer to a younger or older generation. Writer Landon Jones explains that "a generation is something that happens to people; it is like a social class or an ethnic group they are born into; it does not depend on the agreement of its members."[4]

Even those who would reject generational analysis are nonetheless influenced by their generation's place in history. A Gen Zer who, unlike their peers, does not have a smartphone or social media presence is still affected by their peers' dependence on phones and social media.

Generational Research

Robust datasets contribute to conclusions about generations. For example, in the 2023 book *Generations*, Jean Twenge analyzes twenty-four datasets, some dating back to the 1940s and overall containing 39 million people.[5] "The Changing Character of Followers," a 2022 analysis by military leaders Al Boyer and Cole Livieratos, drew from their experiences working with Army cadets at the United States Military Academy.[6] These researchers and others make qualitative conclusions about quantifiable data.

Generations are based on averages. The most commonly held values, attitudes, and beliefs are ascribed to the entire age group and allow scholars to compare fundamental values between generations. If properly applied, these comparisons can be used to understand generational groups and better assess the "why" behind certain common behaviors.

When we map when each generation enters and exits the age range for military service (18–60), we can see that 9/11 occurred during the middle-end of the Baby Boomer service eligibility, while it was in the early part of Generation X's eligibility and the oldest Millennials were barely service-eligible. The ages of each generation during critical national and global events shape how they see that event and, perhaps even more importantly, the imprint it leaves on their personalities, characters, and approach to their service.

The Three Currently Serving Generations

This section considers the implications of various generational differences and how they present themselves across the three generations. As in land navigation, the more points used to identify positions, the greater the level of accuracy that can be achieved. For consideration in the next sections, a 2021 dataset shows that Gen X has the lowest representation in the military—undoubtedly with even fewer serving today—with Gen Z in line soon to overtake Millennials as the largest demographic.[7]

One essential generational mainstay is that generations tend to be critical of each other, and examples are not hard to muster. Generational

scholars suggest this divisiveness is less about the age difference and more a difference in experiences and values as each generation grew up in a unique era, creating a distinct cultural foundation for their perspectives about themselves, society, and others. The following summaries outline several of the most significant cultural differences that are often reflected in the dynamics between generations in the military.

Generation X (Born between 1965 and 1980; ages 44–59 in 2024)

The last wave of Baby Boomers is coming up to mandatory retirement age, which means that most military leadership is from Generation X. Understanding any generation begins with considering its upbringing. Although Boomers were the first generation to have TV, Gen Xers were the first generation to grow up with TV as their primary form of entertainment. They were limited to only a few channels, and everyone watched the same shows. This culture created a unified experience and a plethora of pop culture touchstones understood by most of the generation. Gen Xers can make and recognize references to *Schoolhouse Rock!* and *Family Matters*, and they lived through the musical journey of 8-tracks, cassettes, CDs, and now iTunes and Spotify. Those who became military members were undoubtedly inspired by watching the rough and tough *MacGyver*, *Magnum, P.I.*, and *The A-Team*. This unifying factor allows Gen X to quickly connect and assimilate with their peers, forming relationships and trust faster than younger generations.[8]

Gen X were the last to experience a primarily analog childhood. Unlike subsequent generations, they are digital immigrants with regard to smartphones, social media, and, other than the youngest of the Gen X cohort, the internet.[9]

Also, Gen X grew up with the challenge of managing boredom, an ability that continues into adulthood.[10] Children in the 1970s and 1980s more frequently returned to an empty house after school than previous generations did, letting themselves in for unsupervised time and earning the label "latchkey kids."[11] Many school and community programs were slow to respond to children being home alone, a problem at least partially solved for Millennials by after-school programs becoming widespread in the 1990s. For Gen X, the net result was greater independence at younger ages.

Their upbringing makes Gen X "tough and resilient" but also creates an expectation of resilience in others.[12] The headquarters of the Air

Force's Integrated Resilience (A1Z) team defines *resilience* as "the ability to adapt and recover after adversity or stress. To maintain a sense of well-being and sustained performance while evolving through change."[13] Recovering from adversity and evolving through change are critical parts of military training and preparation for LSCO. Regardless of the reality, seeing themselves as tough and resilient is a potential pitfall of Gen X (current strategic leaders) because it manifests as an expectation of younger generations to be equally independent, responsible, and resilient—or at least to pretend to be.

Growing up in the shadow of the Cold War, Gen X was raised with a near-constant fear of nuclear war and matured from adolescence to adulthood during the fall of the Soviet Union. Regarding military service, Gen X were all 21 and older on 9/11. Experiencing the attack on American soil and the inciting incident of the War on Terror as adults created an emotional connection between Gen X and the combat deployments that have dominated military member experiences over the last 20 years.[14] Gen Xers were the first generation born in the twentieth century not to be drafted into the military; the individualistic idea of an all-volunteer force was born out of the post–Vietnam War climate. Roughly 80 percent of today's recruits have a family member currently serving, and almost 30 percent of them have a parent in the military; Gen X's volunteerism in the late 1990s and early 2000s set the conditions for today's force.[15] Despite their penchant for military service, Gen X was the most politically apathetic of the three serving generations when they were young, but they also are accused of "selling out" as aging leaders.[16] Current strategic leaders (O-6+ and E-9+) are wholly Gen X. As members of the same generation with corresponding ideas about themselves and the service members they lead, the potential for groupthink is high and must be mitigated by involving younger generations in decision-making.

Millennials (Born between 1981 and 1996; ages 28–43 in 2024)

Millennials are the most planned generation in American history. They were born to mostly Baby Boomer parents who, due to the era of reliable birth control and universal access to abortion, had children when and how they wanted.[17] They are often blamed for anticompetitive trends like everyone getting a trophy, playing in games where no score was kept, and praising all participants for "doing their best." The irony is that Millennials themselves did not make these choices;

their parents had experienced the latchkey, hands-off parenting approach and apparently wanted to flip the script for their own children.[18] Millennials were raised in families smaller than previous generations' families. Their primary education focused on individualism: having, boosting, and encouraging self-esteem was incredibly important. Gen Xers learned about self-esteem in school, but Millennials saw it in virtually every aspect of their lives—TV shows, parents, doctors, coaches, and friends. According to Twenge, "As far back as we have measured, and as both teens and young adults, Millennials are the most optimistic and self-confident generation in history. This may also contribute to an uptick in narcissism and entitlement in Millennials, compared to previous generations."[19]

Millennials are the first generation of digital natives; most schools, businesses, and homes had the internet during their upbringing. When the scales tipped and most Americans owned a smartphone, the average Millennial was twenty-five. Although Gen X adopted it later in life, texting for Millennials has become a primary means of communication. They also help older generations learn about technologies they themselves are fluent in, such as helping their parents and grandparents with emojis and digital sarcasm.[20] Millennials also expanded a concept referred to as the "slow-life strategy," a rejection of responsibilities begun by Boomers and Gen Xers.[21] They were not keen on responsibility, as Millennials invented the word "adulting" for tedious but necessary grown-up activities like working, paying bills, and doing dishes.

Another significant difference between Millennials and previous generations is their level of education. They are the first American generation where more than one in three members had a four-year college degree in their 20s. About one in four Gen X members had college degrees at the same age. An even more significant increase is seen in Black and Hispanic populations, with the numbers having four-year degrees more than doubling since the middle of Gen X.[22] The most considerable jump from Gen X to Millennials is in women's wages. Millennial women make 21 percent more (inflation-adjusted) than Gen X women.[23] Of relevance for the military is the increase in the number of non-officer service members with college degrees. As the workforce becomes more educated, the services are scrambling to create opportunities for technical positions in the form of specialized enlisted and warrant officer jobs.[24]

Along with increased educational levels, Millennials are more engaged in politics and political campaigning.[25] Millennial social movements

tend to be decentralized and often devoid of leadership, focusing on perspectives and ideas rather than concrete goals or effects. In short, Millennials want to be heard. The Occupy Wall Street protest in 2011 was a largely Millennial movement and had no leadership or demands but involved spreading the views and stories of people who felt the financial system was rigged.[26] The result of this activism is, at a minimum, an increase in complaints within the military. Gen X leaders have not responded well, according to the former Army Inspector General. Maj Gen David Quantock reported a sixfold increase to Congress in "substantiated reprisal cases" from 2015 to 2018, when the middle of the Millennial generation were young service members. The younger generation are more likely to make official complaints, and in turn the older generations have been punitive in response, retaliating against the complainants.[27] This is complicated, but it is a sign of Millennial activism and an example of how older generations have responded negatively to that activism. Generational conflict is common but maybe even more so in a military setting.

Millennials have fewer children than Gen X and have them later in life (if at all). This choice may result from higher education, which typically delays marriage and having kids. When adjusted for inflation, Millennials average higher incomes than Boomers and Gen X did at the same ages. Despite more degrees and fewer children, Millennials are in a far worse economic spot compared to other generations.[28] Millennials are far less religious than Gen Xers, who are also less religious than Boomers. One theory is that religions often take a stance on social and political issues incompatible with individualism.[29]

The military service of Millennials is of note. The youngest of them were barely of recruiting age on 9/11, but the War on Terror shadowed their adolescence. Services shifted their recruiting approach in 2001, with the Army switching from its "Be All You Can Be" pitch to "An Army of One," setting the conditions for individual development rather than teamwork as the driver of military service and perhaps reflected a shift in overall American culture.[30]

Millennial high school seniors generally experienced an increase in behaviors associated with depression, as they were more likely than Gen X to report "having trouble sleeping, remembering things, thinking, and feeling overwhelmed."[31] Between 2016 and 2021, the rates of major depression diagnoses among those twenty-six to thirty-four (Millennials) increased from 7 percent to almost 12 percent. Rates for those between thirty-five and sixty-four (Gen X and Boom-

ers) remained virtually unchanged during the same period.[32] Some might question if this increase is owing to the Millennial generation's willingness to seek treatment services for symptoms of depression compared to their older generational peers. However, during this period health care providers were initiating best practice recommendations that *all* patients be screened for symptoms of depression and anxiety at any medical appointment, regardless of the appointment reason. This screening became standard practice across all generations. Therefore, the near doubling of depression rates for Millennials highlights a unique trend among this cohort. The correlation between depression and resilience is complex, but Millennials appear to have a higher vulnerability to depression. The bottom line is that several authors and studies suggest Millennials are less resilient than Gen Xers, a perspective that must be considered in times of crisis and stress.[33]

Generation Z (Born between 1997 and 2012; ages 12–27 in 2024)

Generation Z is different, and they know it. Their distinction begins with their name. They are called Generation Z because Millennials used to be Generation Y. This discontinuity arguably captures the essence of their generation. Some also call them "Zoomers," named after the video conferencing that became popular during the COVID-19 pandemic. Twenge has suggested "iGen" in honor of them being the first generation to have their entire adolescence in the smartphone age and simultaneously implying a profound narcissism.[34] They are also statistically the most demographically varied generation of American adults to date.[35]

The oldest members of this generation are twenty-seven, making it difficult to follow trends through adulthood. Their childhoods occurred during a massive recession; in their teenage years they experienced a growing political division in the United States. The most significant event of Gen Z's development was the COVID-19 pandemic, when the youngest members of the cohort were seven or eight. The pandemic wrought a massive shift in life that has not fully returned to its previous norm. The 2012 cutoff of the generation makes sense as children younger than seven during COVID-19 have spent their entire self-aware lives in a postpandemic world.[36]

Gen Zers delay many activities associated with independence and adulthood. As high school seniors (on the verge of enlisting), they are

less likely to drink alcohol, date, and work for pay than previous generations of teens. When members of Gen X were teens in 1991, 67 percent of them had had sex by twelfth grade; in 2021, 47 percent of Gen Z in the same grade had engaged in sex. Twenge suggests this is not because of parental restrictions, and as she puts it, "they are not just extending adolescence; they are extending childhood."[37] Gen Zers are the most extreme manifestation of the slow-life strategy, which includes being more risk averse and taking longer to grow up.[38] Leaders can consider this information about young service members when organizing training events and social activities.

The language of Gen Z is telling, as it suggests a rejection of labels and highlights increased anxiety. A study analyzing over 70 million words from online language compared phrases used by sixteen-to-twenty-five-year-olds to those used by older people. Gen Z was less likely to use the words "class, status, nation, religious, or spiritual . . . and more likely to use the words stressful, relatable," along with such words as "free, true, honest, fake, cancel, ghost, block, fam, and squad."[39] Gen Z is concerned with being authentic and passionate about being heard. Bucking the trend of previous generations, Gen Z makes a surprising about-face regarding free speech. Gen Zers are more likely to support speech regulation and to be concerned about offensive comments and language. Previous generations typically wanted more freedom of speech than their predecessors.[40]

Even more than Millennials and contributing to the upward generational trend, Gen Z appears to struggle with mental health. As Twenge notes, "every indicator of mental health and psychological well-being has become more negative among teens and young adults since 2012."[41] Gen Z teens and young adults show increased levels of depression, anxiety, loneliness, and life satisfaction compared to previous generations at the same age.[42] Mental health and its reporting are complicated, but this factor must be on leaders' radar when considering large-scale combat operations and how each generation may respond to an extreme, high-stress environment.

Gen Zers are particularly interested in physical and emotional safety. Gen X and Millennial adults often talk about safety to Gen Z children, which appears to have left a lasting impression. Far fewer Gen Zers are interested in doing dangerous things or taking risks, and the military implications are discussed in the "Generations Within the Military" section of this chapter. Gen Z participation rates in physical sports have also diminished, which may be about more than safety. Analysis sug-

gests they are the generation of social disengagement. They attend fewer music festivals, are less likely to participate in after-work social events, and even show a significantly decreased rate of sports fandom.[43]

A 2021 study identifies that only 23 percent of Gen Z describe themselves as "passionate" sports fans compared to 42 percent of Millennials, 33 percent of Gen Xers, and 31 percent of Baby Boomers. Even more glaring is that 27 percent of Gen Zers label themselves as "anti-sports," when other generations are in the single-digit percentages of the same label.[44] Considering sports fandom to be a waste of time is not a concerning trait. Still, sociologists suggest it is part of a more significant trend of Gen Z's rejection of membership in or associating with a group or label. Gen Z shows significantly reduced participation rates in civic society, such as attending church and membership in community associations. More than 25 percent of Gen Zers do not know the name of even one of their neighbors.[45]

Some of this perceived antisocial behavior may be attributed to the increased time spent with digital entertainment and video games, another sign of their reluctance to engage in in-person social interactions. Gen Z develops relationships online through platforms like Snapchat, TikTok, or YouTube. Unlike the digital *immigrants* of Gen X and the digital *natives* of Millennials, Gen Z are considered digital *dependents* in the same way that Baby Boomers lived their lives with an expectation of access to running water.[46] Members prefer to interact asynchronously, in which a reply can be carefully crafted and the anxiety of live communication can be mitigated. Gen X and Millennials are far likelier to answer the phone or work to solve a complex problem through live communication.[47] This variance in the generations' preferred communication, particularly in a military service context, is worthy of further analysis (see next section).

These analyses of the three currently serving generations are not all-encompassing. Generational group members tend to judge other groups by their own behavior expectations. However, understanding the unbiased roots of that behavior can highlight that each generation has an origin story but continues to develop and change on its journey through history.

Generations Within the Military

Military Rank Stratification vs. Generations

The military is a unique subset of society where generational analysis can be particularly insightful. Throughout civilian work environments, talented workers tend to rise more quickly to positions of responsibility. It is common for younger workers to be in a position of authority over someone with more experience, possibly from an older generation. When considering generational traits, analyzing such an environment would require a case-by-case assessment of a workplace and its structure. Conversely, the military is one of the only organizations that maintains the stratification of generations in existing rank and authority structures.

Military branches' promotion timelines keep generations within a peer group (tables 3.1 and 3.2). The result is a military rank structure that maintains peer groups from the same generations and sub-generations. Service members occasionally join later than their peers, including prior enlisted members who acquire college degrees and commission later than the twenty-three-year-old average newly commissioned officer. However, they tend to be outliers and spend their entire careers working to fit in a peer group from the same age range.

Table 3.1. Officer and enlisted leadership levels and corresponding generations (as of 2024)

Generation (as of 2024)	*Rank range*	*Current role*	*Birth years*
Generation X	E-9+ and O-6+	Strategic leaders	1965–1980
Millennials	E-6 to E-9 and O-3 to O-5	Organizational leaders	1981–1996
Generation Z	E1–E-6 and O-1 to O-3	Direct leaders and those they lead	1997–2012
Generation Alpha	Future recruits	The generation Millennials and Gen Z will lead starting in 2031	2013–2029

Table 3.2. Average promotion timelines (assuming an enlisted recruit is 18 when joining [23 for officers] and the average time it takes to be promoted)

Grade	*Age (time from enlistment)*	*Additional information*
E-1	18 (join + 6 months)	While ranks vary somewhat across military branches, pay grades and promotion timelines are mostly standardized for equity in compensation.
E-2	19 (join + 1 year)	
E-3	20 (join + 18 months)	In 2020, 88% of military accessions were 17–24 years of age.[48]
E-4	21 (join + 3 years)	
E-5	22 (join + 4.2 years)	Warrant officers are not reflected; they comprise 1.5% of all DOD military personnel.
E-6	27 (join + 8.5 years)	
E-7	32 (join + 13.6 years)	Anything at or above O-7 is competitive, so there is no average age/time available, although for generals it is usually late 40s and 50s.
E-8	35 (join + 17 years)	
E-9	39 (join + 20.8 years)	
O-1	23 (join after college)	The mandatory retirement age for all general officers is 62 (this can sometimes be deferred to age 64).
O-2	25 (join + 18 months)	
O-3	27 (join + 4 years)	
O-4	33 (join + 10 years)	
O-5	39 (join + 16 years)	
O-6	45 (join + 22 years)	

(Source: US Department of Defense, *2022 Demographics: Profile of the Military Community* [Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy, 2023, https://www.militaryonesource.mil/.])

Consider these charts through the following example: In 2024, most O-4s are younger Millennials. Although the vast majority of O-4s are Millennials, a rollover will begin when Gen Z enters the rank group. When analyzing the data, one can deduce that in 2030, older Gen Zers will start to be promoted to O-4; by 2037, a majority of O-4s will be Gen Z; and then by 2045, virtually all O-4s will be from Gen Z. This change will present itself as O-4s approaching tasks in new ways based on their collective generational differences. The young field-grade officers will think, plan, and execute from a Gen Z perspective, changing how military organizations operate in various difficult-to-predict ways.

Another layer to military service is that peer groups have had remarkably similar experiences during their service. For example, mid-grade 2024 lieutenant colonels in the Army have had the following common journey through their careers:

- This group is composed of a mix of younger Gen X and older Millennials.
- They were adults in college on 9/11, commissioning around 2004.
- Their initial training was focused on preparing for conflicts in the Middle East.
- They served as lieutenants and captains during the War on Terror.
  - They experienced a massive uptick in deployments compared to previous generations.
  - Most of their deployments involved leading or supporting teams at the company level and below in counterinsurgency operations in Iraq, Afghanistan, or both.
- They have served on staffs as field grade officers and perhaps deployed as the military began shifting to the Great Power Competition, but their combat experiences and perspectives were as a vastly superior force.
- They were middle-grade leaders during COVID-19, pinched between senior leader approaches and watching the effects on junior service members.
- They witnessed or participated in the dramatic Afghanistan withdrawal and experienced the subsequent emotional turmoil watching the rapid collapse of the Afghan government.
- Finally, and significantly, these lieutenant colonels have attended roughly similar professional military education courses at roughly the same time. Although these courses evolve, this peer group attended in a time frame when the schools' areas of focus and instructional approach were the same.

Not only were these lieutenant colonels from the same generation, but also their military experiences were quite similar. The two commonalities contribute to a shared and narrow view of their service and perspective toward any problem and solution set; groupthink is a considerable risk when one considers all the similarities in a peer group. Comparatively, older Gen X and Boomer lieutenant colonels in 2015 who joined a decade earlier were in different positions on 9/11 and during the War on Terror, COVID-19, and the Afghan withdrawal. They differ not only generationally but also experientially. This analysis of experiential similarities can be individually applied to all branches and ranks to help understand current approaches and predict future

peer-group behavior. This is not a simple problem to solve with a chart or graph, but it is one to consider thoughtfully.

Applications and Recommendations

Generational study benefits all service members, with some areas being particularly important for leaders in understanding themselves and those they lead. Four topics are worth analyzing in more depth for each generation: risk, communication, mental health, and slow-life strategy. Below are assessments of these areas and accompanying recommendations for leaders looking for tangible steps toward better understanding and leveraging a breadth of generations toward large-scale combat operations.

Risk

The military is highly focused on risk. The two basic types are risk to mission and risk to force. The teetering decision of accepting risk versus modifying an approach due to the risk being too high is one every military leader faces almost daily. When leaders assess nearly every decision, they must consider the risk of their approach, asking questions such as these:

- Is this risk too high? If so, can this risk be mitigated to an acceptable level?
- What is the likelihood that this decision will lead to someone getting injured, and how badly, or that a piece of equipment will get damaged?
- Could this decision push back a critical timeline or inject undue complexity into a plan?
- Does acceptance of this risk cause a reduction of risk in another area?

Gen Z is surprisingly risk averse. Risk is managed at different levels, but today's military often speaks to and values the concept of *prudent* risk, where leaders carefully consider, mitigate, and are willing to accept certain levels of risk that increase the chances of mission success.

Generational study suggests that today's comfort level with risk is highest in older generations, with Gen Z showing the lowest propensity for risky behavior. Counteracting this trend is the generally held

belief that military leaders become more risk averse as their careers progress, possibly owing to experiences and a broader understanding of the consequences of risk-taking. A 2020 US Military Academy study found that risk-taking is associated with higher military and physical performance but also with behavior problems and reduced academic performance.[49] As evidenced by this study, comfort with risk can be a positive and a negative.

Organizational leaders often review younger leaders' plans, highlighting risks and nudging the plans toward approaches that are less likely to cause injury or damage to equipment. An inherent contradiction most leaders recognize is that activities that skirt the line of risk are often where the highest level of learning and development occurs. Training events that are stressful and involve negotiating through different types of risk may also contribute to increased resilience. With that in mind, consider a Millennial leader having to encourage a Gen Zer in a direct leadership role to be *riskier* with their approach due to the risk-averse nature of Gen Z. This kind of generational change will certainly affect preparedness for LSCO, as it reverses the relationship between senior leaders and their subordinates regarding risk. As a final thought on risk, there may also be a correlation between declining recruitment rates and the perceived dangers of military service.

Communication

The three currently serving generations prefer to communicate in different ways. In 2024, technology heavily influences communication; remember that Gen X are digital immigrants, Millennials are digital natives, and Gen Z are digital dependents. Gen X, growing up without the internet and the widespread use of cell phones, prefers to communicate face-to-face or at least in a live phone conversation. They appreciate responses, dialogue, and healthy debate on topics of merit, although they also expect respect for rank and positions. When Gen X sends a professional email, it is often detailed, thoughtful, and structured. Millennials vastly prefer the asynchronous and efficient approach of texting. If sending an email, they still prefer structure and a professional approach but do not want to respond to complex topics in real time. Millennials are effective multitaskers who like getting things done and dislike wasting time with idle conversation, and like Gen Xers, they expect immediate feedback. They also tend to be informal with roles

and titles, as Millennials are a generation known to casually use first names with not just their peers but up and down the chain of command.

Like Millennials, Gen Z tends to avoid synchronous interaction. However, they also reject the requirement of professionalism in texts and emails. Gen Z emails may resemble text messages without formal structure or perhaps even without punctuation and often without using military titles. They see social media as not just social but a medium for professional communication as well. This view has given Gen Z the ability to give and receive information more quickly than previous generations, but they may take more time to make decisions. Gen Z has adopted some of the Millennial casual approach and brevity but adds a disregard for the necessity of timely responses.[50] It is possible that there is a link between Gen Z's feeling of being disconnected from their peers and their resistance to communicating in real-time.

Effective leader responses to this communication environment fall under either clearly communicating expectations and politely giving feedback when they are not met or accepting the breadth of approaches if the end state is quality information exchange. A study on navigating generational communication urges leaders to think about the audience, not just the intent: "If you're working with someone of a different generation and you're not getting the results you're expecting, try using a different communication style."[51]

Mental Health and the Importance of Identity

Improving and maintaining the mental health and wellness of service members and their families is a complex and critical challenge with no singular solution. However, one way to get at the problem is to understand the way generational differences affect how service members see themselves and others. Studies suggest that resilience and positive mental health have been on a consistent downward trend from Gen X to Millennials and are continuing to decline with Gen Z.[52] Although many sources relate these negative trends to technology and diminished interpersonal interaction, today's mental health concerns have also been attributed to a struggle with identity and a desire by Gen Z to be seen. A 2016 study by the US Army's Resilience team identified an increased prevalence of suicide in younger generations. It suggested that the problem and solution lie with social integration and an increased need for group identity and solidarity.[53] There are no easy solutions to this challenge. But if today's military leaders cannot

craft services that attract Gen Zers, it spells disaster for the future of retention and recruiting, let alone the cohesion and effectiveness of military organizations.

Slow Life

The propensity for delaying adulthood longer than in previous generations has been occurring for almost a century. Advances in technology, nutrition, and health care have raised life expectancy, which, combined with the generational increase in education levels, means families have fewer children, have them later in life, and give them more attention.[54] This extended adolescence has culminated with Millennials and, to an even greater extent, Gen Zers showing less maturity as young adults than what adult society (comprising the older generations) generally expects.

While the slow-life strategy results in lower levels of risk, the effect is also a rejection of the dangers of adulting. Although Gen Xers still married and started families later than Boomers, the significant effects of this delay are mostly with Millennials and, to a greater extent, Gen Z.[55] One could argue that the impact of young people wanting to stay in the nest a bit longer is negligible when considering the whole of society. This could be so, but the military has not changed the initial enlistment ages, and in the Great Power Competition era, the need for young recruits is not going away. An increasing percentage of new service members—who the military expects in some cases to qualify to drive a tactical vehicle—have never even obtained a regular driver's license.[56] Many young civilians live at home until their mid-twenties, but military member housing expectations have remained unchanged for decades.

More than just being unprepared for military service, Gen Z may also be uninterested. The military has long drawn in recruits with free education and what author and military spouse Corie Weathers refers to as the "Military Welfare State," which provides robust benefits and social programs that do not hold the same value to Gen Z as they have for previous generations.[57] In short, leaders must fully understand recruits' maturity level, social needs, and identity and create an environment where Gen Zers can see themselves thriving.

Conclusion

This chapter highlights the importance of generational study and awareness in attempting to lead multigenerational teams. Generational study will help all service members better understand others and themselves as they navigate the military landscape of 2024 and prepare for the potential of large-scale combat operations. Each of the services' professional military education curriculums should include studying generational differences. This in-depth training is critical for all military members to hone their understanding of themselves and others and further develop their interpersonal skills. In addition to the new challenges created by generational differences, these same differences might also ease some of the difficulties of future warfare. Younger, more digitally fluent officers will continue to move from direct to organizational to strategic leadership positions, and with them will be increased trust and application of artificial intelligence and machine learning toward future conflict.[58]

A future study could examine how generational differences affect active duty and the Guard and Reserve differently. Generations may be even more critical to active duty service members who grew up in vastly different places and have less in common with each other when compared to Guard and Reserve members, who are more likely to join from and live in the areas around their units. Alternatively, the Guard and Reserve should be mindful of the many external factors affecting their members (civilian jobs/careers, families, and communities), which are not as neatly nested or accessible as they are under the active duty banner.

Military members seeking to better understand generational difference should consider values and concepts that are significant to them and then work to understand those concepts through other generations' perspectives. Reading books and articles and engaging views from different generations will help educate current and future leaders on the significance of generational differences. Leaders can use the civilian world's generational integration methods and put younger service members in positions of authority on teams to capture their perspectives. The US military will be strengthened and better postured for the future if each generation takes seriously its duty to prepare itself and those that follow for success.

Notes

(Endnotes are presented primarily in shortened form. For more information, see the appropriate entry in the bibliography.)

1. Connelly, "Organizational Dynamics of Toxic Leading," 9.
2. Doty and Fenson, "Narcissism and Toxic Leaders," 55.
3. Jones, *Great Expectations*.
4. Jones, 22.
5. Twenge, *Generations*, 20–22.
6. Boyer and Livieratos, "Changing Character of Followers."
7. Military One Source, "Military Community Demographics."
8. Twenge, *Generations*, 157.
9. Boyer and Livieratos, "Changing Character of Followers."
10. Twenge, *Generations*, 155.
11. Twenge, 161–62.
12. Twenge, 16.
13. Department of Air Force, "Integrated Resilience."
14. Twenge, *Generations*, 151.
15. US Army Recruiting Battalion Tampa, "Military Recruiting Is a Family Affair."
16. Boyer and Livieratos, "Changing Character of Followers."
17. Twenge, *Generations*, 231.
18. Miller and Bromwich, "How Parents Are Robbing Their Children of Adulthood."
19. Twenge, *Generations*, 237–42.
20. Twenge, 232.
21. Twenge, 234.
22. Twenge, 257.
23. Fry, "Young Adult Households Are Earning More."
24. Nieberg, "Army Wants One-Third of Future Recruits to Be College Grads."
25. Emba, "Why Millennials Are Skipping Church."
26. Alter, *How a New Generation of Leaders Will Transform America*.
27. Maucione, "Too Many Whistleblower Reprisal Cases."
28. Adamy and Overberg, "Millennials Approach Middle Age."
29. Twenge, *Generations*, 295.
30. Twenge, 236.
31. Twenge, 327.
32. Twenge, *Generations*, 328; and Substance Abuse and Mental Health Services Administration, "National Mental Health Services Survey."
33. Petersen, *How Millennials Became the Burnout Generation*.
34. Twenge, *Generations*, 345.
35. Twenge, *Generations*, 347; and Katz et al., *Gen Z, Explained*.
36. How et al., "Generation Z Undergraduate Students' Resilience."
37. Twenge, *Generations*, 374.
38. Twenge, 372–74.
39. Katz, *Gen Z Explained*.
40. Twenge, *Generations*, 379.
41. Twenge, 392.
42. Twenge, 392–97.
43. Lewis, "Are American Fan-Based Businesses at Risk?"
44. Potas, "Gen Z Doesn't Care About Sports."
45. Lewis, "Are American Fan-Based Businesses at Risk?"
46. Boyer and Livieratos, "Changing Character of Followers."

47. Reid-Martin, "Z Communicate So Differently."
48. Office of People Analytics, "Population Representation in the Military Services."
49. Schaefer et al., "Benefits and Liabilities of Risk-Taking," 410–39.
50. Toteja, "Navigating Intergenerational Communication."
51. Toteja.
52. Katz, *Gen Z, Explained.*
53. Griffith and Craig, "Birth Era May Factor in Risk of Suicide," 55.
54. Twenge, *Generations*, 374.
55. Twenge, 372–73.
56. Twenge, 372.
57. Weathers, *Military Culture Shift*.
58. Boyer and Livieratos, "Changing Character of Followers."

4

Combating Trauma for the Future Fight

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Air Mobility Command Perspective

There is no reality in which conflict between great powers does not result in significant trauma to an entire generation. This has been the case in each major conflict the United States has participated in. In World War I it was called shell shock. In World War II it accounted for 40 percent of medical discharges from service. Today, the lingering trauma of warfare can manifest as post-traumatic stress disorder (PTSD). We know that the reality of large-scale conflict is large-scale trauma. The toll war takes on the psychological well-being of those who participate is immense. And yet, the impact of trauma is still not accounted for in operational planning or deployment preparation. There are currently no fielded crisis-response treatments being offered to military members, and there is a paucity of research on what that treatment would look like. This is a gap that must close if the joint force is to be deployed, supported, and sustained at tempo in a large-scale conflict. This chapter highlights the "wicked problem" before us and sets the stage for future research.

Introduction

Since the withdrawal of US forces from Afghanistan in 2021, the Department of Defense and United States Air Force have moved away from countering violent extremism. Instead, they have shifted toward reoptimizing for Great Power Competition (GPC) in recognition that the character of war is evolving.[1] Prospective conflict with China, Russia, North Korea, or Iran would present challenges unseen in over thirty years—one being an enemy with the capability to inflict severe damage and mass casualties to US troops.

During the height of the wars in Iraq and Afghanistan, the US military sustained roughly three service member casualties per day. At the height of the Vietnam War, in 1968, the United States lost thirty per day. A 2023 Center for Strategic and International Studies (CSIS) report estimates that the loss rate in a conflict with China over Taiwan would be more than 140 per day, approaching the World War II totals of 300 per day. Expected deaths in the first three weeks of combat (about 3,200) are roughly half the total from twenty years of combat in Iraq and Afghanistan (5,474).[2] This scenario poses a substantial challenge to operational planning and also presents second- and third-order effects to the mental and emotional health of our service members.

For the first time in a generation, Airmen face the potential of involvement in a large-scale war producing mass casualties in the line of duty that can lead to considerable psychological and emotional trauma. Furthermore, this trauma may significantly affect service members' short- and long-term emotional and mental functioning, degrade their ability to accomplish their missions, and lead to a myriad of mental health disorders post-combat. The USAF must understand the role of combat-related trauma and the potential negative impacts it may impose on readiness in a sustained operation. Research reveals a wide array of mitigation measures to help individuals through traumatic events, and in applying these measures properly the Air Force can ensure the competitive edge in future conflicts while promoting overall individual and organizational resilience.

Defining and Refining the Problem

One of the first steps in operational design methodology, the US military's foremost planning tool, is to frame and define the problem.[3] Understanding the problem provides clarity and focus for developing a plan of action or strategy. In situations with complex or ambiguous environments, like understanding trauma and its effects on military mission readiness, constant refinement of the problem ensures mission objectives meet the desired end state.

Particularly useful for our understanding of the negative impacts of trauma on military readiness is to frame it as a *wicked problem*. This type of problem has multiple interdependent causes, no agreed-upon solution, and no obvious final end state. Additionally, wicked problems are difficult even for experts to define or hypothesize.[4]

Understanding the difficulty Airmen face in maintaining resilience among the realities of combat and categorizing this difficulty as an ill-structured problem require adaptive iteration as the problem framework shifts and evolves. In the case of trauma, several factors make it an ill-structured or wicked problem. As George Bonanno explains, "psychological problems don't lend themselves well to a disease model. There is no clear pathogen or biological event that causes most mental disorders, including PTSD, and there is no physical test that can confirm its existence."[5] Thus, it can be difficult to define a clear and distinct problem, end state, or measurement of success.

With these considerations in mind, a proposed problem statement is "combat trauma compromises military readiness by impairing physical, emotional, and mental capacities in our service members." Further, dispersed operations will require practical nonclinical interventions at the onset of trauma. A desired end state would be Airmen learning and using effective, operationally focused tools for identifying and countering combat trauma without the need for clinical care. It is this proposed problem and desired end state that guide the exploration of the connections between trauma and resiliency for this chapter.

Definition: Trauma and Resiliency

Definitions of *trauma* abound in today's literature and local vernacular. The *VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder* provides a useful one: "an event (or series of events) in which an individual has been personally or indirectly exposed to actual or threatened death, serious injury, or sexual violence."[6] These traumatic events cause mental, emotional, and physical reactions in the individual ranging from no reaction to a significant breakdown of mental cognition and decision-making. Further complicating the situation, traumatic reactions fluctuate depending on the situation, severity, and environment as they differ from person to person. This meta-analysis focuses specifically on the effect of emotional and psychological trauma from a short series of combat-related traumatic events (or even a single event) rather than physical impact trauma (such as traumatic brain injury) or prolonged emotional trauma involving a buildup of smaller stressful events over a long period. While these latter kinds of trauma are

important and warrant further research, this analysis focuses on emotional and psychological trauma.

The Department of the Air Force defines *resiliency* as the "ability to adapt to changing conditions and prepare for, withstand, and rapidly recover from disruption."[7] It is one byproduct of overcoming trauma and processing complex, difficult emotions. Hardships and challenges require individuals to adapt to and overcome a difficult or damaging situation, building cognitive pathways and strengthening their resiliency skill sets. These resiliency skills then aid in limiting the severity of future trauma and minimize that trauma's likelihood of overtaking mental cognition and reasoning. Resilience is a continuous and interconnected process, with each part of the process influencing the other to gain or lose momentum. As recovery and resiliency skills increase, trauma and its effect on decision-making may decrease (see. fig 4.1).

Figure 4.1. Trauma and resiliency model. (Developed by Maj Ian K. VanBergen.)

Overcoming adversity plays a central role in building resiliency. Even when exposed to traumatic events, many people may undergo post-traumatic growth from transcending their experience and ex-

panding their self-assessment of personal efficacy. In fact, most people who experience trauma do not go on to develop PTSD. However, short-term distress and associated impacts to functioning are normal after traumatic events, and this response usually affects most people before they can seek treatment. The level of impairment depends on the individual, ranging from irritation to a substantial block in cognitive and rational decision-making.[8] For military leaders, mental clarity is a vital tool for the success of the mission and the survivability of the troops under their command. As the Prussian theorist Carl von Clausewitz stated, "War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty."[9] When faced with the ever-present "fog of war," even small impairments produce a significant threat to rational thought and to one's ability to make informed decisions.

Additionally, large-scale traumatic events increase the likelihood of psychological or depressive disorders developing in those who experience them. After the 9/11 attacks, over 44 percent of civilians directly impacted reported one or more symptoms of extreme stress. Although most of the symptoms subsided within a few weeks, high levels of trauma can have long-term physical and mental effects.[10] Stressful situations are a part of everyday life for military members. Severe injury and loss of life can occur during training as well as from combat. Research shows that a large proportion of individuals exposed to war will suffer some psychological symptoms of trauma. The more traumatic events that occur (loss of life, horrific conditions, physical injury) without sufficient recovery, the more likely the individual will encounter problematic symptoms.[11]

Physical fitness serves as an effective example of how increasing recovery skills promotes resiliency while simultaneously decreasing trauma. In a 2017–2019 study conducted in the Frankfurt/Mainz areas of Germany, researchers sought to link the recovery tool of muscular strength and cardiovascular fitness to build mental health outcomes (resiliency) and decrease modern life stress situations (trauma). In total, 472 subjects completed a fitness test involving both cardiovascular and muscular exercises. Participants also completed two questionnaires measuring self-perceived fitness and the various dimensions of physical activity (occupation, transportation, household activities, leisure time), self-reporting on experienced stressor exposure over a nine-month period. Findings demonstrated that muscular and cardiovascular fitness are positively associated with resilience to macro

(critical life events) and micro (daily hassles) stressors.[12] In this case, as recovery actions increased so did the level of resiliency in members, which directly correlated with lower daily stress levels. This study is far from groundbreaking, as it is well established that physical fitness is linked to an increase in mental health. However, it showcases the relationship and interdependence between trauma, recovery, and resiliency.

Another study aimed to connect resiliency and moral competency after exposure—either real or simulated—to combat-like environments. Moral competence, or the "affective orientation to perform altruistic behavior toward others and the ability to judge moral issues logically, consistently, and at an advanced level of development," was assessed after a virtual reality (VR) scenario inducing simulated combat stress to a cross-section of students from a private US military university.[13] Findings suggest that exposure to a combat environment increases moral competence and subsequently yields more altruistic behavior. Limitations to the study include the fact that participants were drawn from a military college population, it involved self-reporting, and there was a limited initial study of data collection to avoid performance bias. However, the study is useful in demonstrating that engaging in simulated stressful environments can produce positive outcomes for mental and emotional resilience.

Stages of Trauma

The inherent nature of war makes trauma inevitable. Symptoms related to PTSD may occur in as many as 15 percent to 20 percent of individuals exposed to combat.[14] These symptoms can manifest in physical, mental, behavioral, and emotional signs that may occur immediately (fight/flight/freeze) or manifest minutes, hours, or days after a traumatic event. When triggered, the brain's warning system activates, secreting stress chemicals that affect the brain's electrical circuits necessary for normal responses or decision-making.[15] One of the most prevalent and commonly experienced symptoms after trauma is intrusive memories. These intrusive memories can be simple flashbacks or significant memories recollections in which the traumatic memory overrides reality and the individual is "transported" back to the event. Such memories are triggered involuntarily, are repetitive, can elicit significant distress, and may impair functioning.[16]

Most trauma literature is invested in PTSD prevention and recovery and focuses on clinical care with long-term effects to facilitate treatment. Yet the road to PTSD includes two distinct checkpoints: acute stress reaction (ASR) and acute stress disorder (ASD). ASR is characterized by "transient intense autonomic symptoms of anxiety and cognitive disruption that result in the individual's inability to function during or immediately after a potentially traumatic event."[17] It is the clinical term for a reaction to a traumatic event that has not yet been diagnosed as a disorder. If these symptoms continue for a period of seventy-two hours, then a diagnosis of ASD is warranted. If unresolved for thirty days or more, a comprehensive evaluation for PTSD will be conducted.[18] Figure 4.2 shows the progression of response to stress.

Figure 4.2. Stages of post-trauma disorders. (Developed by Maj Ian K. VanBergen.)

In the military, ASR is comparable to combat and operational stress reaction (COSR). COSR involves "physical, emotional, cognitive or behavioral reactions, adverse consequences or psychological injuries of service members who have been exposed to stressful or traumatic events in combat or military operations."[19] Personal injury, killing of combatants, witnessing the death of another unit member, or injury resulting in the loss of a limb are all examples of combat stressors. The service member may then exhibit reactions including restlessness, panic, irritability, rage, confusion, memory problems, fatigue, insomnia, and dissociation. Whether directly or indirectly, these reactions affect the stability of the individual and the organization. If left unresolved, these reactions can significantly influence a unit's effectiveness in accomplishing the mission.

When diagnosing PTSD in the context of the definition of trauma, the precipitating event is identical to that of ASD. An individual may be exposed to actual or threatened death and serious injury by (1) directly experiencing the traumatic event; (2) witnessing, in person, the event as it occurred to others; (3) learning that the event occurred to a close family member or close friend; or (4) experiencing problematic symptoms, including memories, nightmares, intrusive thoughts,

emotions such as anger or fear that are difficult to control, avoidance of reminders, and other symptoms that negatively affect a person's social and occupational functioning.[20]

Because individuals do not have to be directly involved in the event to experience adverse effects, the scope of combat trauma is far-reaching. Military units are tight-knit groups who live and work closely, and a member's death or serious injury does not affect just those closest to the individual but permeates the unit. COSR symptoms may reach far beyond the first or second tier of friends and family, causing greater psychological harm.

Fortunately, the tight-knit community and shared combat experiences of military members also offer an opportunity for early identification and possible prevention of a diagnosis of PTSD and COSR. Owing to the increased severity of combat-related trauma, leaders and peers may have a greater sense that a potentially traumatic event has occurred and be more apt to provide support to those affected. If the culture of the unit normalizes and supports self-care or has the capacity (training, experience, etc.) to give peer and leader support (or both), the chances of symptom resolution may be greatly improved. Growing evidence shows that brief self- or peer-delivered interventions can be successful at reducing the morbidity associated with traumatic event exposures and acute stress symptoms. Such interventions, as described later in this chapter, are impactful in generating a culture of mental health and are usually cost-effective, easily dispersible, and scalable to the needs of the organization.

Mission Readiness

Problematic symptoms after trauma affect the individual, but they also can influence mission readiness. Reactions to operational stress induced by combat may create significant risks to unit safety, particularly when service members are exposed to high-threat situations.[21] The military's primary goal is to accomplish the mission, and staying mission-ready for a potential adversarial threat is a constant, iterative process. It is the main driving force for the USAF's initiative to reoptimize from countering violent extremism to Great Power Competition.

Over the last twenty years, the US military has focused on four key areas to fight the war on terrorism: developing people, generating readiness, projecting power, and developing capabilities. These concepts

drove the USAF to support the joint force through continuous rotational deployments and a vast projection of power. However, today's war-fighter landscape differs. The US perceives China as the greatest threat to national interests around the globe, and the US military has responded by adopting new strategy. The USAF's reoptimization for GPC engages in four areas: urgent threats, accelerated change, contested environments, and ascending domains.[22]

Operating in contested environments poses the largest threat to resiliency and offers the likelihood of trauma. In a projected future war with a great power competitor, the USAF will no longer have the freedom from contested operations that was prevalent in previous conflicts. Instead, the military is expected to fight to reach the fight and then engage in a high-end conflict where military power is near parity. To gain a strategic advantage, Air Force senior leaders have directed changes to innovate and mitigate the risks to the mission and refocus the force on accomplishing these new goals.

One initiative is mission command, a philosophy that empowers Airmen to thrive in unpredictable, problematic, and fast-changing situations by building mutual trust and a common understanding of the commander's intent.[23] Through an effort to bolster character, cohesion, capability, competence, and capacity attributes, mission command allows continued operations in uncertain, complex, and rapidly changing environments through centralized command, distributed control, and decentralized execution. In short, it places higher responsibilities in the hands of leaders at lower echelons to make key decisions that allow for more rapid, flexible, and informed decision-making.

Although the implementation of mission command is vital to the success of the USAF in a future GPC conflict, it also provides risks to force. A fundamental component of trauma recovery deals with the diagnosis and clinical care of those affected, with the assumption that early identification and intervention are ideal for preventing more recalcitrant symptomology. In past wars, like those in the Middle East in the 2000s, medical care facilities near combat operations provided access to combat operational stress centers and garrison-level clinical staff. For more severe cases of psychiatric distress, where safety concerns were present or unit watch constituted a risk to mission operations, aeromedical evacuations were used.[24] Psychiatric conditions were typically within the top three reasons for medical evacuation of military personnel in combat settings over the past decade.[25] At that time, evacuation and removal from combat

were relatively low-threat endeavors, as the USAF obtained and kept air dominance throughout the war. During conflict with a great power competitor, medical care is less likely to be available when a member encounters a traumatic event. It will be up to the individuals and those around them to provide immediate care. Resiliency training should adapt to this shift toward reoptimizing for GPC and focus on simple, scalable, and flexible interventions without the immediate need for clinical medical professionals.

Mechanisms and Methods of Repair

As combat trauma affects physical, emotional, and mental capacities in the short and long term, methods of repair should focus on engaging trauma at the onset. Early resolution of acute stress symptoms in military service members may enhance medical readiness and mission completion as well as prevent symptoms from progressing into ASD or PTSD.[26] The *VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder* is a resource for the management of ASD and PTSD.[27] Although clinical psychologists use the steps it outlines, military leaders and peers could adapt them as a baseline to help treat trauma when they first observe symptoms. A few key steps derived by the author from the *VA/DoD Clinical Practice Guideline* are presented below, augmented by information about additional intervention programs.

Immediate Needs

In the first step, *immediate needs*, the leader ensures that the individual's basic needs are met, including food, sleep, survival (first aid, safety, security), and communication with the unit, friends, and family. Additionally, this step can provide an opportunity to teach or reemphasize trauma education and methods of quick recovery.[28]

Assessment

After immediate needs are met, the second step of *assessment* can be initiated if that person's symptoms persist into the development of ASD. Considerations include the psychological and mental health history of the individual, physical medical status, substance abuse, and occupational performance. Although peers and leaders do not have

the authority or education to properly diagnose ASD or PTSD, their knowledge of the individual's history could prove vital in selecting the type of care and support.[29]

Interventions

The third step recommended by this author involves *interventions* and occurs when psychologists suggest clinical intervention or treatment of the individual via trauma-focused cognitive behavioral psychotherapy. Behavior therapy comprises various types of treatment—like cognitive behavioral therapy, eye movement desensitization and reprocessing, and prolonged exposure—rooted in research-driven findings to aid individuals in reaching specific goals.[30] These clinical interventions are limited by their practicality during war and their requirement for licensed, trained psychotherapists, who may not be available. Additionally, they usually require multiple sessions and focus on long-term rehabilitation rather than quick recovery. Instead, the interventions described below may be administered with little or no training, are easily scalable, and can lead to a more defined culture of resiliency and mental health.

iCOVER. iCOVER is a rapid, peer-based response to help manage acute stress in team members and return them to a high level of functioning. Initially developed for the Israeli Defense Forces and then adapted by the US Army and coined iCOVER, this 60-minute training program provides a checklist that can be used when encountering acute stress. iCOVER is an acronym for each step in the process shown below.[31]

- **I**dentify: Determine if the team member needs help. Some indicators of acute stress in others include appearing frozen, nonresponsive, dissociated, or agitated.
- **C**onnect: Return to the present moment. Make eye contact, talk to the individual, touch their arm, and so forth.
- **O**ffer commitment: Reduce the individual's sense of isolation. Once in the present moment, remind them that they are not alone.
- **V**erify facts: Work to get the thinking brain back in gear. Ask questions, focusing on two or three simple and easily answerable questions to jump-start logical thought.
- **E**stablish order of events: Reorient the individual. Using simple statements, explain what happened, what is happening, and what will happen.

- **R**equest action: Re-engage in purposeful action. Make a simple request to get the individual engaging in action.

In a study involving 129 US Army Soldiers (including enlisted and officer ranks) from a National Guard unit preparing to deploy to Iraq and Afghanistan, members accepted iCOVER and used it throughout the deployment. Soldiers expressed an increase in their confidence to intervene on behalf of another Soldier's well-being and trusted that their fellow Soldiers would do the same.[32] Although this study only focused on pre- and postdeployment rather than during combat, it provides a potential method of fostering an organizational climate where ASR symptoms are regarded as normal, even expected, and engages peer-to-peer intervention at the onset of trauma before it develops into PTSD. Additionally, the trainers required no specific certifications to administer the training and instead followed detailed notes in a PowerPoint presentation, showcasing an easily distributable and scalable method of intervention.

SOLAR. Another program, Skills fOr Life Adjustment and Resilience, or SOLAR, developed by a coalition of trauma and disaster mental health experts, targets distress and poor adjustment after disaster and trauma and constitutes five, fifty-minute sessions covering six modules or mechanisms. SOLAR was designed to be delivered by volunteers, professionals, and paraprofessionals with no expertise in mental health processes or interventions. Instead, these "coaches" receive a two-day training session before commencing the program with identified disaster/trauma survivors. To study the feasibility and efficacy of SOLAR, researchers from the University of Melbourne conducted a study in 2016 after the January 2015 Sampson Flat bushfires and the November 2015 Pinery bushfires in Southern Australia. Seven frontline workers were trained as coaches, including three Red Cross volunteers with little to no prior trauma expertise. They then administered the SOLAR program to fifteen participants directly involved in one of the bushfire disasters. All the participants showed decreased trauma-related symptoms and no adverse effects in the three months after the program. Additionally, coaches demonstrated significant improvement in their knowledge of and confidence in delivering the program.[33]

SOLAR holds promise as a viable, modular approach to complement universal and standard treatment interventions. While slightly more complicated than iCOVER in its administration and trainer requirements, this option provides a detailed approach to trauma recovery more closely associated with clinical intervention. Therefore, SOLAR's

feasibility for dispersed military members encountering combat-related trauma may be limited. Instead, consideration could be given to arming leaders and supervisors with the coaches' training to increase baseline knowledge and immediate treatment options after trauma.

Diversion. A third possible intervention stems from a study by the Karolinska University Hospital in Sweden. The study used a diversion method to target intrusive memories in the acute phase of trauma by inducing memories of the traumatic behavior followed by a visuospatial cognitive interference task (having the individual play the computer game Tetris) alongside training. This targeting was accomplished by having the members keep a vivid, detailed memory journal and referencing it during the session. Psychologists believe the task of playing Tetris interferes with the consolidation or reconsolidation of visual components of the traumatic memory, thus limiting the clarity and intensity. Specific focus during the gameplay was on "mental rotation" or visualizing how to rotate the blocks and plan for the subsequent blocks. The overall outcome was that participants reported less intrusive thought–related distress and functional improvements (e.g., concentration) at one week and one month post-trauma.[34] This intervention provides a simple-to-administer psychotherapy option that is accessible outside traditional therapy settings and scalable to various groups.

Continual Evaluation

Finally, the fourth step in the management of PTSD and ASD as identified by the *VA/DoD Clinical Practice Guideline* would require leaders and peers to *continuously evaluate* the member for changes in mental state or emotional instability, assessing verbal and nonverbal cues, watching for signs of continued distress, observing concentration levels, and gauging overall mood.[35] If symptoms persist, serious consideration should be given to sending the individual out of the combat zone to seek treatment from a mental health professional.

Recommendations

First and foremost, the USAF must understand the prospective traumatic effect a future war with a near-peer competitor would have on mission readiness. This chapter's meta-analysis suggests a direct and impactful correlation; further research should focus on the scope and scale of impact and identify which interventions might provide the best

course of action for implementation. A potential avenue for this research would be to invest in the services of the Air Force Wargaming Institute (AFWI) at Maxwell AFB, Alabama, run by the LeMay Center for Doctrine Development and Education, the Air Force lead for tactical, operational, and strategic lessons learned as well as the creation of doctrinal concepts. The AFWI could provide the capability to link subject matter experts in mental health and military operational planners to wargame different operational plans and the potential repercussions of trauma in accomplishing the mission.[36] Furthermore, the AFWI could facilitate discussions and debates that provide context and clarity, further refine the problem set, and develop insights to potential solutions.

Second, the Air Force should refine solutions to develop desired learning objectives (DLO) for different echelons within exercises that stimulate and validate resiliency-based interventions. These resiliency DLOs should be created specific to the exercise being planned, connect to the exercises' overall mission objectives, and incorporate defined objectives at the strategic, operational, and tactical levels that link to mission readiness. Considerations should include anticipated traumatic events, data collection, and analysis along with the risk to the mission and force. Intervention methods should factor in the likely absence of trained medical professionals and instead leverage peer-based methods to validate realistic care while executing displaced operations. These methods should be exercised routinely and be incorporated into in-garrison and predeployment resilience training modules. Additionally, medical professionals should be included in every step in the process, from DLO creation through evaluation/iteration. This unified effort facilitates a clinical and operational approach to trauma and resiliency implementation and gives military leaders the most accurate and substantial reports of Airmen progression before and after the exercise. Moreover, having medical professionals involved significantly reduces the risk of inadvertently overstimulating trauma during a phase of the exercise and ensures the appropriate clinical care is provided should unforeseen incidents occur.

Conclusion

The shift in focus toward Great Power Competition signals a strategic response to the evolving global dynamics post-Afghanistan and anticipates a rising China. With the potential for conflict against formidable enemies, the US military will be asked to face challenges unseen since

Vietnam. These challenges pose a threat to the mental well-being and resilience of our service members and could affect their ability to function in the field. Combat-related trauma and PTSD affect thousands of military veterans every year, causing devastating impacts on daily life.

As a new generation of Airmen faces the prospect of combat-induced traumatic events, the Air Force must prioritize their welfare. It can foster Airmen's adaptability by equipping them with simple, scalable resilience toolkits and allowing them to explore and evaluate resiliency techniques during training exercises before conflict. Resilience and flexibility amid potential traumatic situations become critical to enduring mission success in an increasingly dynamic security landscape.

Notes

(Endnotes are presented primarily in shortened form. For more information, see the appropriate entry in the bibliography.)

1. Brown, *Case for Change.*
2. Cancian et al., *First Battle of the Next War*, 120.
3. Joint Publication 5-0, *Joint Planning.*
4. US Army, *Commander's Appreciation and Campaign Design*, 9.
5. Bonanno, *End of Trauma*, 36.
6. Department of Veterans Affairs (VA), *VA/DoD Clinical Practice Guideline*, 6.
7. Air Force Instruction (AFI) 90-5001, *Integrated Resilience*, 78.
8. American Psychiatric Association, "Posttraumatic Stress Disorder (PTSD)."
9. Clausewitz, *On War*, 101.
10. Bonanno, *End of Trauma*, 48–50.
11. Association for Behavioral and Cognitive Therapies, *Survivors of Trauma.*
12. Neumann et al., "Impact of Physical Fitness on Resilience."
13. Hernandez and Georgoulas-Sherry, "Effects of Grit and Resilience."
14. Taylor et al., "Physical Fitness Influences Stress Reactions."
15. Van der Kolk, *The Body Keeps the Score*, 54.
16. Kanstrup et al., "Reducing Intrusive Memories after Trauma."
17. Adler and Gutierrez, "Preparing Soldiers to Manage Acute Stress."
18. VA, *VA/DoD Clinical Practice Guideline*, 9–11.
19. VA, 7.
20. VA, 8.
21. VA, 7.
22. Brown, *Case for Change.*
23. Chief of Staff, *Mission Command.*
24. Unit watch: When a military member shows an enhanced risk of suicide or homicide but the risk is not so high that there needs to be arrest or hospitalization, unit leadership observes and keeps track of the person and their behavior.
25. Migliore et al., "Deployed Mental Health Patient Management."
26. Toukolehto et al., "Accelerated Resolution Therapy-Based Intervention," 361.
27. VA, *VA/DoD Clinical Practice Guideline.*
28. VA, 29.
29. VA, 29.

30. Association for Behavioral and Cognitive Therapies, "Survivors of Trauma."
31. Adler and Gutierrez, "Preparing Soldiers to Manage Acute Stress."
32. Adler and Gutierrez, 36.
33. Adler and Gutierrez, 8.
34. Kanstrup et al., "Reducing Intrusive Memories after Trauma."
35. VA, *VA/DoD Clinical Practice Guideline*, 34. Information draws from sidebars 10 through 12.
36. Air University, "Air Force Wargaming Institute."

5

The Role of Coaching in Building Resilience for Air Force Leadership Development

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Air Mobility Command Perspective

The development of strong leadership teams is essential for the success of the unit. The Air Force invests significant sums of money into professional military education, developmental education, and special programs to produce the best leaders possible, and this pursuit has given rise to an increased interest in coaching. While several of the previous chapters have had strong theoretical frameworks, this chapter has more direct applicability to the programming currently in place within the Air Force. As you read the following, keep a sharp focus on the personal growth aspect of coaching that sets it apart from the career focus of mentoring. Recognize the impact of shifting focus from the attainment of external goals to the attainment of personal growth and self-awareness. While these characteristics are the hallmark of a good coaching relationship, they extend far beyond the coaching relationship and impact how leaders can connect, communicate, and lead their teams.

Introduction

Coaching has been an increasingly popular method of professional development over the last several decades in the corporate and military sectors. According to the International Coaching Federation (ICF), coaching revenue from 2019 to 2022 grew by 60 percent in the United States, making it a $4.6 billion industry, and the coaching industry is expected to continue to grow as the demand for change accelerates.[1] The ICF, one of several credentialing organizations for coaching, claims to have over 51,000 certified coaches worldwide.[2] According to the Department of the Air Force (DAF) website, the Air Force offers a

variety of coaching services through private contractors, government agencies, and one internally developed program established by Air University.[3] It is reported that one of its contracts alone is costing the Air Force $99 million over the next six years, an indication that the Air Force is committed to increasing access to coaching services.[4] While the Air Force has invested significant funding into offering coaching resources to Airmen, research supporting the efficacy of these programs is either limited or unavailable.

Current Air Force coaching programs are separate and distinct from mentoring initiatives promoted in the 1990s, but they share many characteristics. In fact, both concepts are important to the Air Force as an organization, which offers guidance for each in the Department of the Air Force Manual (DAFMAN) 36-2643, *Air Force Mentoring Program*.[5] As coaching becomes more prominent in the Air Force, evaluating these programs is critical to understanding the goals and intent, time involved, and efficacy of each to ensure funding is justified. The Air Force should determine the value of each program along with potential synergies and any unaddressed gaps in leadership development. This chapter presents the pros and cons of the coaching concept as a leadership development tool and whether the literature demonstrates sufficient evidence to support developing a program across the Air Force. The discussion first explores the history and definitions of coaching, compares coaching with mentorship, and summarizes the literature on the value of coaching for individual performance and resilience. It then explains how coaching programs are credentialed and reviews coaching programs available to Air Force members. Finally, recommendations offer ways that Air Force leaders can best use coaching.

History of Coaching

The modern concept of coaching was popularized in the 1980s and 1990s, but its history traces back to Socrates, and even further to Eastern philosophers, who asked questions to promote self-discovery.[6] Many current definitions reflect this same sense of self-discovery, using words such as *self-awareness*, *self-direction*, and *thought-provoking*.[7] The coach is an expert at helping others discover who they are, their shortcomings, and how to fix them. The term *coach* first appeared in the 1500s and referred to a four-wheeled covered carriage designed to take someone from one place to another. It later became a slang term

at Oxford University, which referred to a *tutor* as one who "carries" a student through an exam.[8] Today, *coach* is commonly used in academic and vocational environments. The enduring idea from the original term is that a coach takes someone farther than they could go on their own. Therefore, a coach helps others understand where they are and where they need to go, then assists them in getting there.

Professional coaching in the modern era seeks to develop skills useful for individual and organizational resilience, a primary concern of current Air Force senior leadership. Resilience refers to the ability of a person or organization to maintain its core purpose and integrity when experiencing dramatically changing circumstances.[9] The Air Force is a demanding, results-driven organization that often stretches leaders to their maximum capacity. Air Force leaders face constantly changing circumstances, along with unique mental and physical challenges associated with warfare. Air Force leaders can experience extreme stress from repeatedly enduring environments with little or no physical safety or leading missions where the lives of others are at stake. Coaching may provide new coping skills, enhance emotional intelligence, and develop new thinking patterns that enable leaders to overcome challenges to achieve long-term goals and mission requirements. Many coaching programs boast the ability to reduce work-related stress, increase productivity, and improve communication and teamwork. These and many other resilience skills can be taught through methods other than coaching, but coaching provides a unique learning opportunity in the context of an ongoing relationship.

Modern Definitions of Coaching

A broad range of coaching models promotes individual development for a wide variety of human endeavors: executive, leadership, workplace, sports, life, and spiritual, to name a few. The models share many overlapping characteristics but also feature some significant differences. For example, although executive and leadership coaches both work with individuals on leadership challenges, the executive coach is focused on making the organization better. However, the leadership coach is concerned with the personal growth of clients to increase their leadership capacity. The executive coach will inevitably work with a client on personal leadership at times, and the leadership coach will touch on organizational leadership when appropriate, but their purposes are

different. Sports coaches are like executive coaches in ultimately focusing on organizational outcomes. However, the sports coach typically has direct responsibility for the results of the team's effort versus an executive coach, whose client bears that responsibility. Thus, the sports coach also exerts more influence over the players compared with executive or leadership coaching, where the client sets the agenda.

Some definitions characterize a specific coaching category, while others focus on the broader concept. But there is a consensus among authors that coaching involves a partnership between two people and a process that guides an individual through some type of development. Consider several definitions of coaching from leading organizations and academics. Psychologist and author Jonathan Passmore defines *coaching* as "a Socratic-based future-focused dialogue between a facilitator (coach) and a participant (coachee/client), where the facilitator uses open questions, active listening, summaries and reflections which are aimed at stimulating the self-awareness and personal responsibility of the participant."[10] The International Coaching Federation defines it as "partnering with clients in a thought-provoking and creative process that inspires them to maximize their personal and professional potential. The process of coaching often unlocks previously untapped sources of imagination, productivity, and leadership."[11] The American Management Association, a talent management organization focused on growing skills in organizations, defines *executive coaching* as "a one-to-one development process formally contracted between a professional coach, an organization, and an individual client who has people management and/or team responsibility to increase the client's managerial and/or leadership performance, often using feedback processes and on-the-job action learning."[12]

The Air Force definition of coaching reflects the consensus of the above definitions, as Air Force Manual (AFMAN) 36-2643, *Air Force Mentoring Program*, explains it as "a form of development in which a coach supports a client in achieving personal or professional goals through thought-provoking and creative process guidance."[13] This structured relationship focuses on helping clients identify and execute the steps required to accomplish their goals. The Air Force definition parallels that of coaching author Tony Stoltzfus, who says, "Coaching is helping people grow without telling them what to do."[14] Both definitions reflect the idea that the client identifies the issues and steps needed to progress. Coaching is about empowering individuals to

take ownership of their stories and actions, overcome their problems, and progress in their lives.

Coaching and Mentorship

Coaching and mentoring have several similarities but exist as independent disciplines with distinct approaches and outcomes. *Mentorship* is defined by the Air Force as "a type of professional relationship in which a person with greater experience and wisdom guides another person to develop both personally and professionally."[15] In this relationship, mentors use their experience, authority, and wisdom to guide the mentee. This definition highlights the primary similarity between coaching and mentorship: both coaches and mentors engage in voluntary relationships with a client, which require trust, respect, and open communication. Both seek to help the client achieve goals and gain new knowledge and skills, and both coaching and mentoring have the potential to increase job satisfaction.

The difference between coaching and mentoring is in the focus of the relationship. The coaching relationship, as described previously, centers on the client. The mentoring relationship centers on the mentor, whose role is to share advice, knowledge, and stories of their own experience.[16] A mentor will also provide networking opportunities, make introductions, and suggest development opportunities, such as assignments or training. In contrast, a coach uses active listening and asks powerful questions to help the client engage in self-discovery and learning, helping the client see things from a new perspective and gain insights. A coach helps clients define their goals and identify how to achieve them, whereas mentors add their own expertise to the client's previously defined goals. Both disciplines have their place in professional development, but the outcomes of coaching provide value that mentorship cannot. Coaching helps leaders understand their identity, change their thinking, and recalibrate relationships to make them more effective in the workplace.

Value of Coaching

Coaching provides value at the individual and organizational levels because it goes beyond the scope of typical professional development, which involves education, training, and even mentorship. Coaching

seeks to enlarge the client's character in a holistic way, going beyond the transfer of knowledge and skills for a given role. The goal is to enhance performance by changing the way individuals think about and experience themselves in a current or future role. Commanding, demanding, teaching, preaching, and persuading may help clients perform in the sense that they execute the functions required of them, but these cannot maximize individual potential or sustain performance as coaching does. Leaders—especially commanders—who are coached in this way can also learn to coach others, maximizing the performance of their subordinates and thereby increasing the effectiveness of their organization.

Participants in many studies have emphasized the role of coaching in helping leaders rapidly develop new capacities in the personal, social, mental, and spiritual domains of resilience—areas critical for success. Leaders often take on great personal or professional challenges in complex, uncertain, high-stress environments, which create feelings of vulnerability and anxiety. One study showed that 41 percent of leaders transitioning into senior leadership roles in their industry identified coaching as their preferred method of support.[17] Another demonstrated that coaching enhanced leaders' interpersonal skills and behavior as they prepared for a role.[18] A study of Air Force leadership students found that 80 percent thought coaching was one of their best learning experiences, and 75 percent saw coaching as transformative in some way.[19] A 2011 study by Gill Reynolds grouped coaching feedback from senior leaders into three categories: developing new capacities, developing new meaning and identity, and discovering through the coaching process.[20] These categories express the essence of coaching and its impact on leaders for resilience.

In the Reynolds study, participants who developed new capacities did not discuss skills they acquired but the lack of skills or vulnerabilities they felt in their leadership roles. Their coaching experience was transformational in helping them abandon old patterns of thinking and behavior and reorient themselves to whatever challenge they were facing. Participants developed new meaning and identities as the leaders worked with them to align their efforts and commitments with their long-term goals. Reflecting on the process helped clients discover and understand their emotions around the challenges they faced. The process increased emotional intelligence and ultimately generated greater motivation and excitement in the coached leaders.[21] The outcomes of the Reynolds study confirm a 2008 study that argued "leaders with a deeper understanding of their personal identity and a wide

variety of life experiences will be more able to interpret their leadership experiences, good or bad, constructively."[22]

The transformational nature of coaching not only maximizes performance but also increases resilience in leaders and organizations. *Resilience* describes the capacity of an individual or system to deal effectively with trauma, according to Andrew Zolli and Ann Marie Healy.[23] Even high-performing leaders can be knocked down by stress, fatigue, or traumatic events. Leaders who are coached increase their ability to cope with stress and stay committed to solving problems even when their initial solutions do not work out. Resiliency research calls this "self-efficacy," the belief that one can master one's own environment and effectively solve any problems that arise.[24] Job satisfaction and retention are current challenges for the Air Force, and higher rates of both are often promoted as outcomes of coaching by industry leaders because of these resilience attributes. Another aspect of resilience that coaching facilitates is the ability to receive feedback. Receiving feedback is difficult because it creates tension between two competing human needs: the need to grow and the need to be accepted.[25] The ability to better understand and manage emotion improves a leader's ability to receive feedback, and the self-discovery method of coaching is key. Through coaching, leaders can begin to see themselves objectively, avoiding emotional triggers that may otherwise be a barrier to receiving feedback.

Coaching Credentials and Standards

Professional leadership coaching is not regulated by state or federal agencies, and there are no licensing requirements by law; however, many organizations work to set standards for the profession. The International Coaching Federation, the European Mentoring and Coaching Council (EMCC), and the Center for Credentialing and Education (CCE) are international organizations that promote best practices, competency, and ethical standards for professional coaching in addition to credentialing. To be credentialed by these organizations, coaches must have education and experience commensurate with the level of certificate issued. Ongoing education is also required for a coach to maintain certification, and the most recent credentialing requirements can be found on the website for each credentialing organization. Besides setting standards and credentialing, these organizations offer many

opportunities to their members and a community where they can network, market themselves, share or receive guidance, and research coaching opportunities.[26]

Coaching Programs for Airmen

The Air Force values coaching as a transformative process for developing Airmen and offers multiple opportunities for Airmen to be coached or to become a coach. Air Force programs for Airmen to receive coaching include three contracted, professional coaching organizations—BetterUp, Flatter, and the Treasury Executive Institute (TEI). The Air Force also has two internally developed programs: the DAF internal coaching cadre and a coaching program through the Air University Leadership Development Course (LDC). Opportunities to become a coach are offered through Flatter and the Federal Internal Coach Training Program (FICT), led by the Office of Personnel Management (OPM).[27] The following discusses four of these programs: BetterUp, Flatter, TEI, and LDC.

BetterUp

An experienced coaching organization used in the corporate arena and the military, BetterUp offers three services to Airmen: dedicated, specialty, or on-demand coaching. Dedicated coaching is voluntary and one-on-one, focused on changing or developing patterns of thinking and behavior that may help leaders thrive. It does not define a topic for clients but allows them to discover and address their needs during the session. Specialty coaching, on the other hand, seeks to take clients on a deeper journey into a specific topic they identify as an area of need. The company's website includes the areas of presenting with confidence, navigating uncertainty, sleep, nutrition, and working parent.[28] BetterUp requires its specialty coaches to have specific qualifications in their focus area. For instance, nutrition coaches must be active, registered dietitian nutritionists or have a master's degree in nutrition. Sleep coaches must have a master's degree or doctorate in the behavioral sciences and a background in cognitive behavioral therapy. Finally, BetterUp offers an on-demand coaching method for leaders who are not looking for ongoing development but want the ability to gain a fresh perspective at a moment's notice. Clients could request on-demand coaching during a crisis or just when they need someone who can

actively listen as they share ideas or concerns. This category is designed for the convenience of the client but comes with some limitations. Clients will have a different coach for each session, so some of the relational aspects of coaching like trust and vulnerability may not be maximized. Not all coaches for BetterUp are ICF certified, but they are required to have equivalent coaching experience and undergo a rigorous interview and onboarding process with BetterUp leaders before they become part of the coaching team.[29]

BetterUp claims that Air Force members are 13 percent better prepared for their wartime jobs and 7 percent more committed to making the military a career after receiving coaching through its platform.[30] It is likely that these numbers are based on participant self-reporting, and while they imply some level of positive change, they do not indicate a tremendous level of improvement for participants. BetterUp led a study with 371 participants to determine the impact of its professional coaching on mental health and psychological well-being. It administered identical assessments at the beginning of coaching, after approximately three to four months, and again after six to seven months. The study measured stress management, resilience, life satisfaction, emotional regulation, self-awareness, and social connection. Using mixed-effects modeling, the authors observed varying rates of change for each dimension based on length of time in the program and demonstrated the overall effectiveness of BetterUp coaching.[31] The probability of researcher bias should be considered to offset the successful reported outcomes. Evidence of an independent study to quantify the effectiveness of this organization's coaching was not found; therefore, further evaluation of this program is warranted—especially if the Air Force plans to invest large sums of money in it. The Air Force program has limited funding, and each major command (MAJCOM) has its own selective process for determining which ranks or specialties can apply.

Flatter

Flatter is a veteran-owned company with a broad focus that goes beyond coaching. The company's motto is "excellence is our baseline," with nine core competencies listed on its website: program management, administrative support and executive assistance, finance and acquisition support, mission advisory support, process re-engineering, mission analytics, leadership coaching, coach training, and culture development.[32] The latter three are the focus of the Air Force program.

The Flatter Air Force program has two tracks: one to receive executive coaching and one to become a certified coach. Both are funded through Headquarters Air Force. The executive program is open to senior enlisted, officer, and civilian ranks and provides ten one-on-one coaching sessions over twelve months, with the primary purpose of facilitating a coaching culture in the organization. The program also helps senior leaders with their own leadership development, performance, and well-being; it is more likely senior leaders will promote a coaching culture if they experience the benefits of coaching. Flatter's course for qualifying as a coach is the Coaching Culture Facilitator's Course, and it became part of the ICF Accredited Training Program in 2022. This means that all of Flatter's coaches meet ICF certification requirements and all Airmen who complete the program are also ICF-certified coaches.[33] At the time of this writing, Flatter has published several articles on purchase agreements and contracts with various companies; however, no studies were found specifically on the effectiveness of its coaching approach.

Treasury Executive Institute

The Treasury Executive Institute is a government agency that provides various services to over forty federal agencies. Its Air Force program is specifically for civilians at the GS-14 and GS-15 level, with the purpose of helping civilian leaders accomplish their career goals. TEI coaches are highly encouraged to be certified by ICF or another credentialing agency but must at minimum have 60 hours of ICF-accredited coaching experience. Sessions are one-on-one and can be in-person or by phone. Unique to TEI because it is a federal agency providing services to federal employees, coaching is provided without charge to participating Airmen or the Air Force. The application process and approval go through TEI only, with no oversight by an Air Force board.[34]

Leadership Development Course

The Air University Leadership Development Course was developed by the Air Force, with coaching as a key component, to train leaders in the organization.[35] The program targets officers with "high potential for squadron command" but also provides opportunity for senior enlisted and civilian leaders.[36] At Air University, LDC is an eight-day in-residence course focused on developing the human domain of leadership, emphasizing self-awareness, emotional intelligence, and interpersonal communication. The program is not solely a coaching opportunity but

provides training that incorporates coaching, music, improvisation, virtual and immersive reality, and other methods in a new frontier termed "Leadergogy" by the course facilitators.[37] Course instructors are graduated Air Force squadron commanders with training focused on four core competencies: powerful questioning, direct communication, designing actions, and planning and goal setting.[38] The program graduates 900 students per year with the goal to double the number by FY25, and approximately 33 percent of graduates are in command positions for the Air Force.[39]

The table below compares organizations that currently offer training to Airmen and overviews the differences, funding levels, eligible ranks, and baseline curriculum format.

Table 5.1. Coaching comparison

Elements	*BetterUp*	*Flatter*	*TEI*	*LDC*
Primary focus of Air Force services	Continuous growth and development of Airmen throughout the force	Executive coaching for senior leaders to improve performance and organizational culture	Elevate careers of high-performing senior civilian leaders	Training future squadron commanders
Coaching or coach training	1:1 coaching	1:1 coaching and coaching training (separate programs)	1:1 Coaching	Students are coached as part of a broader training program
Funding	MAJCOM-level funding	Headquarters Air Force	n/a—Federal program for federal employees	Unit-level funding
Program certification	ICF	ICF	Not provided but web info references ICF standards	Internally developed program, follows ICF ethical standards
Eligible ranks	Determined by MAJCOM	Officer: O-6 to O-11 Enlisted: E-9 Civ: GS-15, SES	GS-14 and GS-15	Officer: 9–16 years commissioned service Enlisted: E-7 to E-9 Civ: GS-13 or higher

Table 5.1. (continued)

Elements	*BetterUp*	*Flatter*	*TEI*	*LDC*
No. of sessions/ time requirement for Air Force program	Sessions based on coaching track used, and timeline determined by MAJCOM. 12-mo. licenses can be shared.	10 sessions over 12 months	Not provided	8 days intensive training, includes some coaching

Key:
ICF–International Coaching Federation
LDC–Leadership Development Course
MAJCOM–major command
TEI–Treasury Executive Institute

Coaching Limitations

Leaders and organizations may feel that they are benefiting from coaching, but there are some limitations. The coaching process is not a formula; it depends on trust and vulnerability between coach and client, which can take time. It is also influenced by the dynamics of personality, environment, and organizational factors. Some organizations seek to have managers coach subordinates with hopes of increased performance, but the nature of hierarchical relationships can make it difficult for the client to be vulnerable.[40] Employees also must see coaching in a positive light and not as a stigma, as if they are being placed into a program to fix a perceived inadequacy. Coaching must be voluntary, and the client must want to grow and develop for the process to work. To prevent stigma, all leaders should be given the opportunity for coaching training, just as the Air Force requires professional military education (PME) at each rank. This option is unaffordable through the current methodology but could be incorporated into PME in the future.

There is also criticism of the coaching industry related to the broad nature of the field and the lack of regulation.[41] Coaching is being practiced in many fields, each with specific education and training requirements for coaches. Anyone can call themselves a coach and advertise services, even without a certification, highlighting the need for certifying organizations like ICF and others. Additionally, many studies promote the effectiveness of coaching, but most of these are self-scored evaluations of a specific program, not independent measurements of outcomes. Furthermore, many of these studies assume

the general effectiveness of coaching and then look at the variance between aspects of the coaching program, style, or individuals involved. This methodology cannot objectively validate coaching as a practice. The Air Force must accurately and objectively evaluate any coaching program it develops or utilizes.

Conclusion

From an evaluation of the literature and comparison of various coaching companies, it appears that coaching can be a valuable tool for the Air Force to develop resilient, effective leaders and organizations in an era of rapid change. However, coaching needs to be better integrated across the force to benefit all Airmen. Millions of dollars have been spent contracting outside services that reach a small percentage of senior leaders who are likely already performing at the highest level. Some evidence shows that leaders can benefit from coaching by increasing their own resilience and that of those they lead. Leaders can also cultivate resilience in others by using their knowledge to coach others toward resilience, especially those who can complete coaching training programs. However, senior leaders can rarely coach at the individual level due to the scope of their organizational responsibility. Additionally, while senior leaders have the greatest responsibility for organizational resilience, they also have a limited time left in the Air Force compared with mid-level and lower-ranking Airmen. Junior members of the Air Force have a greater potential to use what they experience in coaching to increase resilience for themselves, others, and the organization. They have more time left in the service to apply their knowledge, increasing the impact of their training on the organization, and they are directly involved in leading individuals and setting the cultural tone of the organizations they lead. Junior Airmen who have become more resilient through being coached may also be more inclined to continue their careers as they become better at creating meaning and identity through their coaching experience.

One of the greatest challenges facing the Air Force is retention, especially of pilots, who are finding opportunities in the private sector that offer more money and stability for their families.[42] The Air Force projects offering more monetary incentives over the next six years, with the current Experienced Aviator Retention Incentive budget increasing from $34 million in FY 24 to over $45 million in FY 29.[43] The Air Force

cannot fiscally compete with the airline industry but has a higher potential to develop shared meaning and identity if Airmen are being coached well. The human desire for connection can often be more powerful and alluring than money alone. The Air Force would be wise to conduct additional studies of leaders who have completed formal coaching programs to better determine whether the training improves retention. If it finds that offering this professional development opportunity increases retention, the expenditure may be justified when compared to the financial loss when Airmen leave the service after huge investments are made in personnel.

Given that nearly every Airman will attend some form of advanced education during their careers, one method to integrate coaching is through the Air Force education system, starting with basic training and continuing through the current PME structure for each rank. The work of the LDC at Air University to develop an internal cadre of coaches is a good start toward this effort, but it will require much more. Incorporating coaching into military education ensures that everyone in the organization has the same opportunity and training, further ensuring that resilience training becomes part of the Air Force culture. Every level of PME allots substantial time and classwork to the subject of leadership. Instructors can be trained in leadership coaching, and time can be allotted during this phase of training for coaching students.

Incorporating coaching into PME does not prevent the Air Force from offering specialized coaching training on a competitive basis for high-performing leaders to enhance the resiliency of commanders and senior leaders. In fact, commanders may place more value on coaching if it is initiated early in their career and proves effective as a leadership tool. Commanders and senior leaders who use coaching throughout their career, first as a client and later as a coach, may ultimately have a greater impact on the overall resilience of the force as these leaders become intimately familiar with personal and organizational resilience factors. Codifying the inclusion of coaching education as a routine part of professional development is another area ripe for further research.

The Air Force objective for its coaching programs is to create readiness through a strong, agile, and resilient force, equipped to face pacing threats, and its belief in coaching is demonstrated in the number of coaching programs provided to Airmen. However, the narrow focus on selected leaders may not be the best investment for this purpose.[44] Air Force leaders evidently believe in the capacity of coaching to increase performance, resilience, and readiness, yet it is not

available to all Airmen. Based on this review, the Air Force could benefit by infusing the training and practice of coaching across its education system equally. A truly resilient force requires that all Airmen be equipped with a variety of skills to use during adversity. Learning the skills of coaching may strengthen Airmen resilience, and the Air Force would benefit from including the training consistently across all ranks while continuing to evaluate its efficacy.

Notes

(Endnotes are presented primarily in shortened form. For more information, see the appropriate entry in the bibliography.)

1. International Coaching Federation (ICF), "Global Coaching Study 2023."
2. ICF.
3. US Air Force, "Coaching."
4. Helbling, "BetterUp Inc. Partners with US Air Force."
5. Air Force Manual (AFMAN) 36-2643, *Air Force Mentoring Program*, 5.
6. Whitmore, *Coaching for Performance*, 8–10.
7. Ciporen, "Executive and Organizational Coaching," 5–15.
8. Etymonline, s.v. "coach," retrieved 9 January 2024, https://www.etymonline.com/.
9. Zolli and Healy, *Resilience: Why Things Bounce Back*, 6.
10. Passmore and Fillery-Travis, "Critical Review of Executive Coaching Research," 74.
11. ICF, "What Is Coaching?"
12. Frisch et al., *Becoming an Exceptional Executive Coach*, 24.
13. AFMAN 36-2643, *Air Force Mentoring Program*, 5.
14. Gregory and Wiles, "Professional Development for All Seasons," 58–61.
15. AFMAN 36-2643, *Air Force Mentoring Program*, 5.
16. Gregory and Wiles, "Professional Development for All Seasons," 58–61.
17. Bradford, "Role Change," 9–12.
18. Kombarakan et al., "Executive Coaching," 78–90.
19. Hinck, "Leadership Coaching as a Transformative Process," 20–34.
20. Reynolds, "Exploring the Meaning of Coaching," 39–53.
21. Reynolds, 44–45.
22. Avolio and Hannah, "Developmental Readiness," 331.
23. Zolli and Healy, *Resilience: Why Things Bounce Back*, 6.
24. Reivich and Shatté, "Resilience Factor."
25. Harvard Business Review, *Resilience*, 53.
26. "Top 10 Life Coach Organizations."
27. US Air Force, "Coaching."
28. Wood, "Sleep, Nutrition, New Parent Coaching."
29. BetterUp, "About BetterUp for Individuals."
30. BetterUp, "United States Air Force Accelerates Mission-Readiness."
31. Jeannotte, Hutchinson, and Kellerman, "Time to Change for Mental Health," 1–27.
32. Flatter, home page.
33. US Air Force, "Coaching."
34. US Air Force.

35. Hinck, "Leadership Coaching as a Transformative Process," 20–34.
36. Eaker Center, "Leader Development Course for Squadron Command."
37. Hinck et al., "Understanding 'Leadergogy.' "
38. Hinck, "Leadership Coaching as a Transformative Process," 20–34.
39. Eaker Center, "Leader Development Course for Squadron Command."
40. Anderson, "Implications of Managerial Coaching for Leadership Theory," 251–66.
41. "How to Become a Life Coach Without Certification."
42. Cohen, "Perennial Pilot Paucity."
43. Air Force Reserve Personnel Center, "Experienced Aviator Retention Incentive Program," 17.
44. US Air Force, "Coaching."

6

Are They Ready?

Resilience Training for AFROTC Cadets to Improve Mental Fitness

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Air Mobility Command Perspective

Mental wellness, destigmatization of early help-seeking behaviors, and strong coping skills should be the foundation from which the next generation of leaders operates. Their introduction to, understanding of, and implementation of these concepts should be as foundational as physical wellness or basic leadership principles. The changes needed will be made by leaders who are not afraid of the conversation—leaders who were raised with an understanding that mental wellness is essential to healthy warrior ethos; leaders who see resilience as part of the fabric of who they are. The recommendations below target ROTC cadets, but the implications go far beyond a single commissioning program. How can a foundational understanding and appreciation for resilience be ingrained into all accession programs? Can we build a common lexicon regarding mental health and wellness topics? Can we build a culture that sees resilience and mental wellness on an equal footing with physical wellness? How will that type of culture impact the next generation of Airmen?

Introduction

Each year, the Air Force Reserve Officer Training Corps (AFROTC) commissions the most talented and promising college students to become the next Air Force officers. Over four years, AFROTC cadets undergo rigorous training to prepare them for their future roles. This training is a comprehensive introduction to Air Force fundamentals, including history, principles of leadership and followership, and national

security studies.[1] While these topics are foundational, AFROTC unfortunately does not include training to prepare cadets to be mentally resilient. As the future of military operations becomes increasingly complex—particularly in the face of potential peer competition—developing adaptable, resilient leaders who can make critical decisions in high-pressure scenarios becomes increasingly imperative.

In the next decade, most of today's leaders at the US Air Force's operational and strategic levels will have retired. Thus, in any future conflict, the upcoming generation of Air Force officers will be at the helm of the fight. This generation is currently matriculating through their commissioning sources at the Air Force Academy (AFA), Officer Training School (OTS), or AFROTC programs. AFROTC is the largest source of commissioned officers for the Air Force, commissioning over 2,000 lieutenants annually.[2] The courses in the AFROTC program provide the foundation for a new Air Force officer to understand the military environment, but are they enough to prepare our future leaders for the stresses of leadership, deployments, and prospective large-scale war that will be theirs to handle? The Air Force will need mentally resilient officers for this future fight. Resiliency training for AFROTC cadets would reach a significant portion of incoming new lieutenants and give them a foundation of resiliency they can carry into their active duty service.

AFROTC Demographics

College students are experiencing a number of mental health problems. According to the 2022–2023 Healthy Minds Study, 41 percent of responding students reported symptoms of depression, 36 percent said they experienced anxiety, and 14 percent said they were considering suicide.[3] The AFROTC program recruits from this population. Given the prevalence of mental health issues among college students, it is reasonable to anticipate that AFROTC cadets may experience similar challenges during their time in the program. Without a proper resolution, mental health issues could potentially manifest during active duty service.

Building Resilience: Process, Trait, or End State?

The Air Force defines *resilience* as "the ability to adapt to changing conditions and prepare for, withstand, and rapidly recover from disruption."[4] AFROTC cadets need to learn resilience skills that will

equip them with the mental and emotional strength to cope with the challenges and adversities they may face during their military service. Resilience will help cadets bounce back from setbacks, adapt to stressful situations, and maintain peak performance under pressure, ultimately contributing to their effectiveness as military officers and overall well-being. But can resilience be taught?

Resilience has been studied for several decades, with various authors offering different definitions and descriptions of resiliency. Some scholars believe that resiliency is trait-based, with resilient people possessing three characteristics: a firm grasp on reality, a deep belief that what one does has meaning, and the ability to improvise.[5] Others offer a laundry list of attributes or "protective factors" in individuals displaying resiliency.[6] However, correlation does not equal causation. With inconsistent, varying agreement on what these traits should entail, it is challenging to develop resiliency understanding.

Resilience has also been referred to as an outcome. With the phrases "bouncing back" and "coping with adversity," resilience becomes the end state. This understanding of resiliency does not address how or why coping or bouncing back occurred and assumes that resiliency must have occurred since there has been an adaptation to an adverse event.[7] However, *coping*, "the ability to get past a difficult situation in the moment," is not necessarily being resilient.[8] Rather, coping is a state of getting through an adverse event without processing meaning or preparing for the next. Resiliency involves more.

Resilience is triggered by a challenging event and incorporates a set of strategies to restore well-being after adversity.[9] This conception suggests that resilience is a process. The process approach has focused on how resiliency functions versus personal traits and end states.[10] Within this perspective, *resiliency* is viewed as "a dynamic process that reflects what happens during and after adversity."[11] Eggers and Barlow defined *resilience* as the "power to be energized and elevated by disruption" to "emerge stronger and even more effective."[12] This interpretation implies that resilience also requires growth, a process-based approach also found in other notable models like Stephanie Duchek's capability-based organizational resilience framework.[13] The process framework not only applies to higher-level systems, such as military organizations, but also can be applied at the individual level.

Duchek's framework depicts resilience as a three-phase process that includes responding to adverse events "not only after adverse events, but before, during, and after as well."[14] In the first phase,

preparation is key. Preparation allows an individual or group to "build a resilience potential" by being equipped to manage adversity.[15] The second phase occurs during the adverse event—one must accept the issues at hand and start developing solutions. In the third stage, which follows the adverse event, the person or organization must adapt through reflection and learning from what has occurred. This entire process is cyclical, as the learning from the third phase feeds back into the preparation of the first phase.

The AFROTC staff may seek to recruit cadets who demonstrate resilient character traits or have showcased instances of resilience. However, defining these traits proves challenging, as merely overcoming a difficulty does not necessarily signify an individual's overall resilience. A view of resilience as a process and a skill set that can be learned highlights the notion that individuals are not simply born resilient but can learn and develop resilience. Building resilience involves "very intentional preparation" to cultivate a foundation before adversity occurs and to get through adversity better equipped than before.[16] If the Air Force needs resilient leaders who can withstand, recover, and grow, it should support a foundation to prepare new officers early on and before adversity occurs while in the service. Leadership training should thus cover the health and behavioral implications of stress, equip prospective leaders with stress management skills, and foster their resilience.[17]

The Importance of the CAF Mental Pillar

The USAF is becoming more aware of the importance of mental health for its service members as demonstrated by a variety of initiatives and trainings, including suicide prevention training, where members are taught to look for signs of distress in others. While the Air Force teaches Airmen and even cadets indicators of negative mental health, high stress, and the threat of suicide, it has not excelled at teaching individuals how to prepare themselves for adversity. The overall focus seems to be on reactive treatment rather than proactive preparation.

To develop Airmen and their families by providing tools to support their well-being, the Air Force created the Comprehensive Airmen Fitness (CAF) framework. AFI90-506, *Integrated Resilience*, defines the CAF as "a holistic approach to develop overarching Airman fitness and resilience."[18] CAF is not an isolated initiative but is designed as an integrated framework for achieving Airman fitness. CAF encompasses

four domains: *mental fitness*, "the ability to effectively cope with unique mental stressors and challenges"; *physical fitness*, "the ability to adopt and sustain health behaviors needed to enhance health and well-being"; *social fitness*, "the ability to engage in healthy social networks that promote overall well-being and optimal performance"; and *spiritual fitness*, "the ability to adhere to beliefs, principles, or values needed to persevere and prevail in accomplishing missions."[19]

AFROTC proactively trains cadets in the physical, social, and spiritual domains of CAF. Cadets undergo physical exams and are instructed to monitor their health. They participate in organized fitness sessions and learn how to better themselves physically. Cadets are also tested regularly on physical fitness standards to ensure adherence to the program.

Cadets are encouraged to socialize within a variety of AFROTC organizational clubs, such as the Arnold Air Society, and morale, welfare, and recreational events. The cadet corps has a team approach and camaraderie. To support the spiritual domain, cadets are taught the Air Force core values and the Airman's Creed from the start of the program to give them a sense of purpose in their military service.

The mental domain, however, is not typically a focus of training or development until or unless an adverse event occurs. A leader who is not mentally resilient may show signs of stress that can lead to a major source of stress for their subordinates, causing burnout.[20] A lack of resiliency can also lead to a loss in productivity, ineffective leadership, and the spread of more mental health problems throughout the organization.[21] Therefore, AFROTC should proactively introduce initiatives focused on mental fitness to reduce the risk of negative stress-related outcomes from their future leaders.

Mental health is more than the absence of mental disorders; it embraces the well-being of individuals, which "enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community."[22] The CAF defines mental fitness as "the ability to effectively cope with unique mental stressors and challenges."[23] AFROTC instruction should highlight this aspect of CAF because mental health is an "integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships, and shape the world we live in."[24] The CAF mental health pillar is divided into four tenets: *awareness*, *adaptability*, *decision-making*, and *positive thinking*.

Awareness

The lack of knowledge and the presence of stigmatizing attitudes regarding mental health contribute to the challenge of effectively treating mental health conditions in their early stages. The awareness tenet of CAF is designed to address this issue. The CAF model defines *awareness* as "the self-descriptions a person ascribes to oneself that influence one's actual behavior, motivation to initiate or disrupt activities, and feelings about oneself" and as having "situational awareness or knowledge of what is going on around them."[25] In the mental health realm, awareness refers to not only improving mental health literacy, the "knowledge, and beliefs about recognition, management, and protection of mental disorders," but also being aware of one's mental well-being.[26] There are four essential components of mental health literacy. These components are comprehending techniques for attaining and preserving positive mental health, understanding mental disorders and their respective treatments, reducing stigma surrounding mental disorders, and enhancing efficacy in seeking professional help.[27]

Studies have shown that mental health awareness is improved through implementing educational programs like Mental Health First Aid (MHFA), originally developed to address the lack of knowledge about mental illnesses in Australia, and by creating safe spaces for psychoeducation.[28] MHFA has been introduced to communities that have strong stigmas toward mental health, including military communities, and is viewed as a "promising intervention for reducing critical barriers to care."[29] MHFA training could be added to the AFROTC curriculum to expand cadets' understanding of mental health.

Another study that investigated creating safe spaces for mental health exploration and positive modeling indicates that community fellowship is an innovative approach to psychoeducation.[30] AFROTC can assist in developing a sense of community fellowship among cadets through team-building activities, group discussions, and mentorship programs. The cadet corps can also foster a leadership environment that accentuates mental health, promotes cadets prioritizing self-care, and encourages cadets to seek support without the fear of stigma.

The military lifestyle has "turbulent stressors that affect the military" members.[31] People new to the military need to understand the occupational stressors that come with being in the organization and how they could affect their minds and bodies. Individuals can reduce stress and develop coping mechanisms through learning effective strategies,

increasing their mental health knowledge (understanding mental disorder symptoms and agencies that can help), and becoming more aware of their mental well-being (staying in tune with their feelings and learning to process them).[32] Some specific military stressors include the challenging training environment, interpersonal conflicts, deployments, workload, unpredictability, and role clarity.[33] Combat and operational stress reactions encompass physical, emotional, cognitive, and behavioral responses and the adverse psychological effects service members experience after exposure to stressful or traumatic events in combat or military operations.[34] These reactions delineate two distinct types of responses that can arise in both combat and noncombat operational environments. AFROTC can improve the mental fitness of cadets by increasing awareness of these stressors and how they affect the mind and body.

Adaptability

The military requires flexibility from its members to manage regular moves, long duty hours, family separations, and other adverse events. *Adaptability* refers to the "ease of adapting to changes associated with military life, including flexible roles within the family."[35] People who do not adapt well can experience depression, anxiety, stress, pain, catastrophizing, thought suppression, and job burnout, so improvement in this important area may lead to psychological benefits and adaptive behavioral changes.[36]

Individuals can increase their adaptability through self-regulation practices that include being mindful of their current psychological state and making "self-corrective adjustments" to reach a positive or desired end state.[37] Through self-regulation, one may be able to understand the feelings, behaviors, and thoughts that result from an adverse event and thus bring about a resilient outcome. A study of resiliency in military personnel examined the relationship between trait-based protective factors, self-regulation processes, and resiliency-related outcomes.[38] The study showed that self-regulatory mechanisms were central to resiliency.[39] Introducing cadets to self-regulation practices like mindfulness—being completely aware of the present moment and cultivating a nonjudgmental attitude toward oneself—could bring about greater psychological well-being and less psychological stress.[40]

Another way to improve adaptability is to cultivate psychological flexibility. Psychological flexibility is described as "learning to be more

emotionally and cognitively open; more consciously aware of the present moment, both internally and externally; and being more actively engaged in a values-based approach to living."[41] One method of fostering this attribute is acceptance and commitment therapy (ACT), a framework using a skills-based approach.[42] A study with a group of university students showed that participation in a brief in-class ACT intervention was effective in reducing depression, anxiety, and stress symptoms.[43] Building skills in psychological flexibility and self-regulation can contribute to strengthening one's mental adaptability.

Decision-Making

Decision-making refers to the "thoughts, attitudes, and behaviors used for evaluating and choosing courses of action to solve a problem or reach a goal."[44] This is an important skill to hone, especially for young military officers. A decrease in mental well-being may cause stress-related symptoms. While stress responses are crucial for the survival of all living organisms, maladaptive reactions to stress can alter brain functioning and affect cognitive processes, including attention, executive functioning, and decision-making abilities.[45]

In officer training, cadets are trained in decision-making as one of the essential qualities of effective leadership. Mastering the skill is crucial for cadets' success because errors in judgment during critical moments can "significantly impair their leadership performance."[46] Building self-efficacy, "the belief one has to execute courses of action necessary to achieve desired results," is a way to lower stress that could impair decision-making because the most prominent factors contributing to the development of a leader were increasing confidence in abilities and mastering the art of adapting to situational demands.[47] In a study of Army ROTC cadets on the relationship between psychological variables and effective squad leadership, results show "a positive association" between self-efficacy beliefs and leadership performance, emphasizing the need to cultivate a resilient sense of efficacy for eventual success at complex, real-world tasks.[48]

Decision-making is used in reaching goals; thus, another way to support decision-making is through the practice of goal setting. *Goal setting* is defined as "the aim of an action," which is to "move an intention from thought into action steps," which, in turn, increases self-efficacy, positive affect, and productivity and sparks a sense of hope with an improved view of the future.[49] Studies have shown that

to increase goal-setting success, one will need to define small goals, set realistic expectations, and have flexibility and self-compassion.[50] Some barriers to setting goals are fear of failure, a negative state of mind, and low self-efficacy.[51] Increasing mental fitness will require a combination of boosting skills in decision-making by practicing goal setting and strengthening confidence.

Positive Thinking

Positive thinking, known as positive reframing, involves the ability to redirect focus and maintain a positive outlook.[52] As noted, "well-being and positive functioning are core elements of mental health."[53] Positive thinking can also be referred to as *optimism*, "a mood or attitude associated with an expectation about the social or material future, one which the evaluator regards as socially desirable, to his/her advantage or pleasure."[54]

Studies demonstrate that optimism can be learned and that we can condition ourselves to see "a half-empty glass as half-full." Optimism is described as having a clear vision of a meaningful life, goal-directed behaviors, confidence, and personal control over one's life.[55] Conversely, *pessimism* is described as "the inclination to expect the least favorable or worst outcome."[56] Studies have shown that over time, low self-esteem, low self-confidence, and general pessimism can undermine mental health.[57] Though people should work to cultivate positive emotions, positivity should not be viewed as the ultimate goal but as a tool to promote well-being through psychological growth.[58]

In addition to positive thinking, positive psychology interventions can be regarded as a supplementary approach to promoting mental health and facilitating treatment.[59] Positive psychology is a more "cost-effective mental health promotion" tool that can reach large target groups compared to other interventions like group and individual therapy.[60] Some positive interventions range from practicing kindness to goal-setting to offering gratitude.[61] A meta-analysis concluded that positive psychology interventions involving self-help, group training, and individual therapy "significantly enhance subjective and psychological well-being."[62] The study noted that self-help interventions are well-suited to the goals of positive psychology.

Recommendations

Common themes flow through the tenets of the mental fitness pillar of the CAF: cultivating awareness, mindfulness, flexibility, self-efficacy, and optimism. To build mental resiliency in cadets, the AFROTC curriculum should include lessons that support these mindsets and skill sets, such as mindfulness, goal-setting, and an awareness of the occupational stressors of military service. These lessons could be added to the aerospace studies courses at all four levels and to Leadership Lab (LLAB). Studies support that introducing cadets to even brief resilience training helped them to recover faster from stress by seeing a previously stressful situation through a more positive mental framework.[63]

AFROTC cadets are taught Tactical Combat Casualty Care (TCCC or TC3), a program for battlefield lifesaving techniques developed by the Department of Defense.[64] For example, cadets learn to recognize the stages of heat exhaustion and how to make a splint and sling with uniform items and care for a sucking chest wound. TCCC focuses on physical wounds, with little emphasis on the psychological scars individuals may endure during their service. However, introducing Mental Health First Aid could help bridge this gap.

Just as TCCC helps with providing lifesaving first aid training to fellow wingmen, MHFA bolsters mental health awareness by teaching risk factors, warning signs, crisis intervention strategies, and resources for assistance in crisis and noncrisis scenarios. One of the most significant barriers for military service members seeking behavioral health care is the persistent stigma of doing so, along with a lack of knowledge about mental health and negative attitudes toward treatment.[65] A study testing an adapted version of MHFA in an Army National Guard unit concluded that it is a significant intervention, as it ensures a community first responder would use appropriate engagement, support, and referral practices "when identifying someone in need of mental health support."[66] Improvements were also observed in self-confidence, knowledge of mental health resources, attitudes toward help-seeking, and stigma reduction.[67] This intervention is viewed as promising for reducing critical barriers to care and increasing awareness.

Another way to foster mental health awareness is to teach cadets about the mental and physical realities of service by introducing them to combat and operational stress reactions. The Defense Health Agency has published joint service training, "Combat and Operational Stress 101," promoting the total fitness of service members by maximizing

their physical, mental, and emotional well-being. Training decks cover understanding stress and taking care of oneself and how to act for oneself and one's wingman.[68] This training could easily be covered during LLAB or as a lesson during field training to help prepare cadets for life in the service.

Acceptance and commitment therapy enhances psychological flexibility and value-based living by "promoting self-reflection, reducing stigma, and preventing mental health problems."[69] In the study of university students using ACT to reduce depression, anxiety, and stress symptoms, participants were exposed to four, fifty-minute lessons for a month.[70] Presentations and discussion included topics on mindfulness, willingness, acceptance, committed action, and self-compassion.[71] This program could be embedded into the AFROTC curriculum.

Another intervention that could provide skills for AFROTC cadets is having master resiliency trainers (MRTs) as part of the detachment cadre. Master resiliency training (MRT) courses are foundational for training resilience skills in noncommissioned officers (NCO) and for teaching NCOs how to teach these skills to their subordinates. The six competencies taught to MRTs are connection, optimism, mental agility, self-awareness, self-regulation, and character strength.[72] They correlate to the tenets of the mental fitness pillar of CAF. Studies have shown that MRT improved participants' self-awareness and character strengths.[73]

Though AFROTC has NCOs on its cadre team, MRT qualification does not have to fall solely on the NCOs at the detachment. AFROTC's faculty of aerospace studies attend a range of training to learn skills (e.g., class management, lesson planning, briefing skills) to become certified instructors. During this time, instructors could get master resiliency training and become trainers. They could then teach the cadets at their detachments resiliency skills to improve their mental fitness. This course would help the faculty understand resilience and train others and also foster a positive culture throughout the detachment, improving cadet and cadre relationships. This effect can lead to lowered attrition rates and greater organizational commitment among cadets.[74]

The MRT program touches on key skills that support the mental fitness pillar. Multiple lessons—Actions, Beliefs, Consequence (ABC), Explanatory Styles and Thinking Traps, Icebergs, and Energy Management—will strengthen the awareness tenet. Fighting Back against Counterproductive Thoughts in Real Time may strengthen adaptability, Problem-Solving and Building Character Strengths could improve decision-making, and Minimizing Catastrophic Thinking

and Cultivating Gratitude can benefit the positive-thinking tenet. Adopting MRT in AFROTC could be the best strategy for implementing resilience training in the cadet corps since the Air Force already conducts this training and the program is familiar to many.

Conclusion

As the Air Force prepares for future challenges, it needs mentally resilient leaders. An optimal approach lies in incorporating resilience training in the AFROTC curriculum, enabling prospective officers to cultivate essential skills well in advance of encountering challenges that come with service. While AFROTC emphasizes the physical, social, and spiritual aspects of Comprehensive Airman Fitness, a notable gap exists in activities designed to bolster the mental domain. AFROTC cadets would benefit from an enhanced curriculum that includes activities to hone mental health fitness—such as awareness, adaptability, adaptability, decision-making, and positive thinking—and ultimately lead to greater mental resilience.

Notes

(Endnotes are presented primarily in shortened form. For more information, see the appropriate entry in the bibliography.)

1. Smith, "Air Force ROTC Detachment Earns Top Spot."
2. Smith.
3. Healthy Minds Network, *Healthy Minds Study 2022–2023 Data Report*, 3.
4. Air Force Instruction (AFI) 90-5001, *Integrated Resilience*, 78.
5. Eggers and Barlow, *Resilience: It's Not About Bouncing Back*, 19; and Harvard Business Review, *Resilience*, 10.
6. McLarnon, Rothstein, and King, "Resiliency to Adversity in Military Personnel," 105.
7. McLarnon, Rothstein, and King, 105.
8. Eggers and Barlow, *Resilience: It's Not About Bouncing Back*, 15.
9. McLarnon, Rothstein, and King, "Resiliency to Adversity in Military Personnel," 106.
10. McLarnon, Rothstein, and King, 106.
11. McLarnon, Rothstein, and King, 106.
12. Eggers and Barlow, *Resilience: It's Not About Bouncing Back*, 15.
13. Duchek, "Organizational Resilience."
14. Duchek, 223.
15. Duchek, 227.
16. Eggers and Barlow, *Resilience: It's Not About Bouncing Back*, 15.
17. Zueger et al., "Effects of Resilience Training."
18. Air Force Instruction (AFI) 90-506, *Comprehensive Airman Fitness (CAF)*.

19. AFI 90-506.
20. Zueger et al., "Effects of Resilience Training," 566.
21. Zueger et al., 566.
22. Özer and Altun, "Mental Health Literacy," 284; and World Health Organization (WHO), "Mental Health."
23. AFI 90-506, *Comprehensive Airman Fitness (CAF)*.
24. WHO, "Mental Health."
25. AFI 90-506, *Comprehensive Airman Fitness (CAF)*.
26. Özer and Altun, "Mental Health Literacy," 285.
27. Özer and Altun, 285.
28. Mohatt et al., "Military Mental Health First Aid"; and Jordan et al., "Novel Approaches to Community-Based Psychoeducation," 37.
29. Mohatt et al., "Military Mental Health First Aid."
30. Jordan et al., "Novel Approaches to Community-Based Psychoeducation," 38.
31. Desrosiers, "Stressors of the Military Lifestyle," 17.
32. Özer and Altun, "Mental Health Literacy," 287.
33. Adler et al., "Military Occupational Stressors"; and Defense Health Agency, "Combat and Operational Stress Reactions (COSRs)."
34. Department of Defense Instruction (DODI) 6490.05, *Maintenance of Psychological Health in Military Operations*.
35. AFI 90-506, *Comprehensive Airman Fitness (CAF)*.
36. Doorley et al., "Psychological Flexibility," 2.
37. McLarnon, Rothstein, and King, "Resiliency to Adversity in Military Personnel," 107.
38. McLarnon, Rothstein, and King, 107.
39. McLarnon, Rothstein, and King, 111.
40. Moyes, Nutman, and Mirman, "Targeted Mindfulness-Based Interventions," 1165.
41. Falletta-Cowden et al., "What the Body Reveals," 1.
42. Browning et al., "Brief ACT for Undergraduates," 279.
43. Browning et al., 292.
44. AFI 90-506, *Comprehensive Airman Fitness (CAF)*.
45. Soares et al., "Stress-Induced Changes in Human Decision-Making," 5.
46. Gilson, Dix, and Lochbaum, "Psychological Variables and Effective Squad Leadership," 58.
47. Gilson, Dix, and Lochbaum, 59.
48. Gilson, Dix, and Lochbaum, 64, 65.
49. Penno, Hetrick, and Christie, "Exploration of Goal Setting in Young People," 772, 777.
50. Penno, Hetrick, and Christie, 778.
51. Penno, Hetrick, and Christie, 778.
52. AFI 90-506, *Comprehensive Airman Fitness (CAF)*.
53. Boiler et al., "Positive Psychology Interventions," 2.
54. Patnaik, "Impact of Optimism and Positive Emotions," 122.
55. Patnaik, 122.
56. Fatima et al., "Life Orientation (Optimism/Pessimism) and Mental Health," 992.
57. Fatima et al., 995.
58. Patnaik, "Impact of Optimism and Positive Emotions," 125.
59. Boiler et al., "Positive Psychology Interventions."
60. Boiler et al., 16.

61. Boiler et al., 2.
62. Boiler et al., 13.
63. Zueger et al., "Effects of Resilience Training."
64. Lewis, "Tactical Care Training Improves Survivability."
65. Mohatt et al., "Military Mental Health First Aid."
66. Mohatt et al., 1576.
67. Mohatt et al., 1580.
68. Defense Health Agency, "Combat and Operational Stress 101: Part I" and "Combat and Operational Stress 101: Part II."
69. Browning et al., "Brief ACT for Undergraduates," 281.
70. Browning et al., 284.
71. Browning et al., 284–85.
72. Griffith and West, "Master Resilience Training," 142.
73. Griffith and West, 151.
74. Raabe et al., "Perceived Cadre Behavior," 405.

7

Air Task Force Deployment Preparation

Embracing Resilience in the New Era of Great Power Competition

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Air Mobility Command Perspective

Rarely are leaders offered the opportunity to shape the culture of an organization from its infancy. With the significant changes occurring in Air Force organizational structure, leaders have a unique opportunity to build resilience into the framework of the organization and influence the creation of a culture that places emphasis on mental well-being. This is not an opportunity that will be available to many, nor will the window be open long. This research looks specifically at Air Task Forces (ATF) and provides initial recommendations. However, the opportunity extends far beyond a single organizational change. Leaders must recognize that the current uncertainty and organizational change in progress present opportunities that can be seized to build resilience into the very fabric of who we are and how we identify as Airmen.

Introduction

On 5 September 2023, Secretary of the Air Force Frank Kendall III released an official memorandum with a subject line that simply read "One Team, One Fight." The purpose was to prepare the service for a shift in its organizational structure, and this candid communiqué advised all department members that "we must be ready for a fight unlike anything all of us serving today have ever seen, and that requires both unity of effort and change."[1] Coming on the heels of China's push to field a world-class military capable of winning a fight in any theater by 2050, this shift in the Air Force calls for a strategic

re-optimization for Great Power Competition. The change introduces six new Air Task Forces (ATF), each consisting of a "command element with an attached expeditionary A-Staff and Special Staff, Combat Air Base Squadron, and Mission Generation Force Elements with attached Mission Sustainment Teams."[2] This construct will define the way the department will deploy and posture forces for future conflict.[3] The change has been well communicated and anticipated. What remains uncertain is the extent to which the organizational culture must be refashioned in preparation for a new era of combat.

In past years, the standard deployment timeline for most Airmen filling non-leadership roles and positions was approximately six months. Under the new ATF construct moving forward, Airmen could experience a baseline increase or decrease in deployment timelines depending on the environment of their specific missions. Therefore, while we prepare our Airmen for mission effectiveness by shifting organizational structures, we must also prepare them to be more resilient in the face of sustained operations of the unknown. Enhanced training can provide the necessary tools for war fighters to resiliently navigate challenging life situations while in a deployed environment that may include combat or pose hostile conditions. Implementing the new ATF construct also produces a fresh opportunity for the Air Force to create a new subculture, a group that differs in "quite substantial ways from that of the larger organization of which they are a part," one that fully embraces the concept of resilience.[4]

The overall purpose of this research is to identify ways ATF units can create an organizational culture that embraces the Comprehensive Airman Fitness (CAF) model as a primary means of building resilience. To achieve this goal, there must first be a collective understanding of why resilience is uniquely important to the military lifestyle and of the CAF model and its associated elements. There must also be a shared recognition of the subcultural differences across Air Force specialties that have contributed to different outcomes in implementing resilience training. Finally, integrating CAF requires an awareness of how the proposed ATF unit construct is laid out to better understand the overall effect that this implementation may have across the force.

Military-Related Stressors

Service members and dependents of the active duty, Guard, and Reserve components of the Armed Forces deal with many stressors that are inherent to the military profession. These stressors include multiple relocations, no-fail mission sets, extremely long work hours, and one of the focal points of this research: deployments. Not only is the deployment environment often hazardous to the service member, but it can also acutely affect family members. For example, since 2001, more than 50,000 service members have been physically wounded and as many as 400,000 have incurred life-altering impairments such as traumatic brain injuries (TBI) and post-traumatic stress disorder (PTSD). These harsh realities produce high levels of worry for family members; the rates of suicidal thoughts in children who are exposed to deployment are 34 percent greater than in children who are only exposed to military service.[5] Coupled with risk, the psychological effects or even the helplessness that service members feel when loved ones are experiencing hardship thousands of miles away can have a negative effect on mission effectiveness.

While not all distress is as severe as that described above, there is a high probability that Airmen will face some level of personal adversity while in a deployed environment. This added stress could undermine the day-to-day readiness of service members and affect their ability to effectively accomplish their assigned portion of a mission set, which may be of critical importance. In turn, when personal well-being is affected, overall operational readiness of an entire unit can suffer.[6] To combat this reality, in 2011 the Air Force shifted focus to a model capable of building Airmen of *resilience*, defined as "the ability to withstand, recover, and grow in the face of stressors and changing demands."[7] This model assists Airmen in developing practices that strengthen resolve in areas needed to intentionally navigate through the tough terrains of adversity before the adverse events actually occur. The model was coined Comprehensive Airman Fitness.

CAF Model Explained

Air Force Instruction (AFI) 90-5001 defines *CAF* as a "holistic, strength-based, and integrated framework that plays a role in sustaining a fit, resilient, and ready force."[8] In a cultural shift redefining how

Airmen and their families should view fitness, it recognized that resilience encompasses more than just physical activity. The CAF model features the mental, physical, social, and spiritual domains of fitness, along with corresponding tenets in each as a tool to assist Airmen in becoming the most resilient version of themselves.

Mental Pillar

The first pillar of resilience as defined by CAF is *mental*, described here as "the ability to effectively cope with unique mental stressors and challenges."[9] Individuals who participate in positive mental health practices tend to view life's challenges as opportunities and not hurdles. They also approach these challenges in a positive way by "demonstrating self-control, stamina and good character with choices and actions; seeking help and offering help."[10] This domain pinpoints awareness, adaptability, decision-making, and positive thinking as tenets that play a vital role in the mental fitness of all Airmen.

Among other desirable outcomes, the mental pillar of resilience aims to eliminate the stigma surrounding mental health in the military. A study published in the *Clinical Psychology Review* compiled feedback from 22,627 US Army Soldiers serving between 2003 and 2011 that revealed outstanding results—an uptick from 19.8 percent to 35.8 percent during those years—of help-seeking and mental health service utilization, which reduced the burden of mental instability and symptoms that stemmed from deployment. Soldiers attributed the uptick in service utilization to "a decrease in self-reported stigma."[11] Through CAF, the Air Force should realize similar results. By redefining mental health as a part of overall fitness and not an illness, Airmen will be more willing to seek help and garner the tools and skills necessary to effectively help them bounce back from adverse situations.

Physical Pillar

The second pillar of the CAF model, *physical*, is defined as the "ability to adopt and sustain healthy behaviors needed to enhance health and well-being."[12] Individuals who tend to focus on the physical element are able to perform and excel in physically demanding activities such as aerobic fitness, endurance, strength, and flexibility by focusing on exercise, nutrition, and training. [13] This domain encompasses the tenets of endurance, recovery, nutrition, and strength.

In 2018, the Physical Activity Guidelines Advisory Committee concluded that roughly $117 billion in annual health care costs and about 10 percent of premature mortalities in America could be attributed to inadequate physical activity.[14] With increased sedentary Air Force specialty codes such as cyber, intelligence, and nuclear operations, the physical pillar of resilience is more important now than ever but is often overlooked. To ensure Airmen and civilian employees alike have adequate time to participate in physical activity, many Air Force installation fitness facilities offer 24-hour operations as well as dietitians and fitness coaches. Further, Air Force Instruction (AFI) 36-8115 mandates that employees may be excused for up to three hours per week for physical fitness.[15]

Social Pillar

The third pillar of the CAF is *social*, defined as the "ability to engage in healthy social networks that promote overall well-being and optimal performance."[16] Individuals who have a healthy level of social interactions develop and maintain trusted, valued friendships that are fulfilling and foster good communication skills, including an exchange of ideas, views, and experiences.[17] The five tenets of this pillar are family, communications, connectedness, social support, and teamwork.

A study conducted by the RAND Corporation on the link between the social pillar and resilience concluded that nourishing the connections shared between family, friends, coworkers, and neighbors leads to healthy social fitness, which in turn may alter how Airmen and their families respond to stressful events.[18] This pillar also addresses a major issue of concern to the Air Force, as inadequate access to these social connections is also one of the three main predictors of death by suicide.[19] By equipping Airmen with tools for combating isolation and loneliness, the Air Force is also providing them tools that may ultimately save their lives.

Spiritual Pillar

The *spiritual* pillar involves the ability to adhere to beliefs, principles, or values needed to persevere and prevail in accomplishing missions.[20] Individuals who participate in spirituality practices strengthen values that sustain their sense of well-being and purpose. These values include worldviews, religious faith, sense of purpose, sense of connectedness, ethics, and morals.[21] The four tenets of the spiritual pillar are core values, perseverance, perspective, and purpose.

One of the main contentions with the spiritual pillar of resilience is the assumption that it only relates to Airmen who hold religious beliefs or faith. However, religiosity is not required for spiritual fitness to be effective. One of the key resilience factors of spirituality is "spiritual or religious coping in which individuals use their beliefs as a source of comfort to deal with stress and strain."[22] The spiritual pillar equips Airmen with tools to seek out purpose and meaning in life.

Working in tandem, all elements of the CAF model enhance Airmen's resilience and well-being and "reduce the number of those who cannot cope effectively and those whose mental and physical well-being suffers as a result of stress and strain."[23] While *fitness* may have been more attributed to the physical aspects of taking care of the body in the past, the CAF model expands on the concept to include taking care of the spirit and mind. A strengthened connectedness between the mind and body often leads to better total fitness overall. However, though the CAF model may be an effective tool, one of the challenges for the Air Force is ensuring that units and people use it.

Learning from Failure and Success

The Air Force has over seventy-five years of history and heritage that have shaped and molded the service into much of what we still see today. These factors are some of the building blocks of *organizational culture*, broadly defined as "the assumptions, ideas, norms, and beliefs expressed or reflected in symbols, rituals, myths, and practices, that shape how an organization functions and adapts to external stimuli and that give meaning to its members."[24] According to Edgar Schein, the earliest shared learning of these symbols, rituals, myths, and practices provides meaning and stability to an organization and becomes, in a sense, the cultural DNA. In other words, over time these beliefs and values become part of an organization's identity and are passed down from generation to generation, communicating "this is who we are, this is what we do, and these are our beliefs."[25]

Once an organization's culture is established, it is extremely difficult to change. Establishing a culture where members often act unconsciously according to its dictates may have positive benefits. Conversely, it could also have negative consequences, "especially when it locks an organization into dated and inappropriate ways of operating."[26] This was the case while trying to implement resilience training at one of Air Force

Global Strike Command's three nuclear intercontinental ballistic missile bases. However, there are cases of successful resilience training implementation, such as in the Air Force Special Operations Command (AFSOC), which serves as the Air Force component command to United States Special Operations Command (USSOCOM). This section provides examples of failed and successful CAF-like training implementation and discusses the possible differences as to why these units realized divergent outcomes.

Missile Wing Woes

As one of AFGSC's premier nuclear units, the 341st Missile Wing (341 MW) at Malmstrom AFB, Montana, has had its fair share of opportunities to develop resilience in Airmen. Not only does the wing house a 24-7 nuclear mission with one of the highest operations tempo in the Air Force, but it is also located in the small northern-tier city of Great Falls that offers limited off-base amenities and activities for Airmen and their families to enjoy. This pairing tends to create an environment of loneliness for some, boredom for others, and stress for almost all. In early 2017, this reality led the wing to create an integrated resilience program. In an effort led by Lori Muzzana, the Wing Community Support coordinator, resilience training assistants (RTA) were selected and trained to provide peer-to-peer mentorship, rooted in the CAF principles, within their respective units and across the installation. Once RTAs gained experience, a handful of individuals participated in the Master Resilience Training Course (MRTC) at Maxwell AFB, Alabama, to learn how to facilitate formal training sessions that would meet the wing's annual training requirements.[27]

After Malmstrom built its bench of well-trained master resilience trainers (MRT) and RTAs, the unit decided that the most effective way to implement and teach the bulk of resilience training was during the First Term Airman Course (FTAC), as attendance was required for all incoming personnel who had been reassigned to the base. MRTs and RTAs conducted instruction in civilian attire and taught lessons such as gratitude, which coaches Airmen to look for the good and mindfulness which encourages Airmen to be present in the moment of anything they do.[28] Essentially, the training program mirrored the lessons offered during the MRTC at Maxwell. However, the team had to instruct eight lessons in one day due to the wing's time constraints on FTAC. Nevertheless, in almost every case of feedback and critique after the resilience

training sessions, personnel self-reported that their resilience skills improved after receiving instruction.[29] The resilience program seemed to be a most promising endeavor.

On 2 August 2019, after the chief of staff of the Air Force, Gen David Goldfein, issued a call for a resilience tactical pause (RTP) to fight against the rising number of suicides and suicide attempts across the department, the 341 MW commander gave each unit an opportunity to hold separate events to best meet the needs of their personnel. Many units leaned on the wing's MRTs and RTAs to assist in developing plans that answered the call. The teams sought to empower Airmen to strengthen connectedness and eliminate the stigma surrounding service members seeking mental health care, and by the week of 8 September 2019, all units in the wing had completed the RTP.[30]

Though the wing successfully accomplished the requirements for the RTP, Malmstrom's implementation of the resilience program ultimately turned out to be ineffective; MRTs and RTAs constantly battled a culture that seemed resistant to the idea of recurring resilience training. While instruction during FTAC heavily influenced incoming Airmen, trainers struggled to implement recurring training within the individual squadrons and groups that made up the wing structure. According to Muzzana, one of the main drivers for this was that DAFI 90-5001 only directed that "all will receive resilience training" but did not mandate how many lessons would be taught. With no mandate, leaders could conduct as little as one resilience lesson a year to meet the Air Force requirement. As opportunities within the units continually decreased, Muzzana eventually created the "Resilience Minute" at weekly wing staff meetings to afford MRTs and RTAs the opportunity to keep their skills sharp. However, this meeting only provided wing leadership their resilience training. With no requirement for commanders to conduct resilience training in their units, there was no way to track if Airmen were receiving training as regularly as their leadership.[31]

AFSOC's Most Important Weapon System

When Adm William McRaven took command of USSOCOM in 2011, a global survey of the 69,000 special operators, support staff, and family members under his command detailed astonishing cases of wear and tear due to the decades-long war on terrorism. The report included "widespread instances of divorce, domestic violence, drunk driving, depression and sleep problems; outbreaks of angry violence, chronic

ailments and pain." It also highlighted highly elevated suicide rates and casualties. Since 2001, there had been 471 special operators killed in action and 3,745 wounded, leaving many to struggle with TBI.[32]

In 2013, SOCOM implemented a $39 million campaign called the Preservation of the Force and Family (POTFF), aiming to "optimize and sustain Special Operations Forces (SOF) mission readiness, longevity, and performance through integrated and holistic human performance programs designed to strengthen the Force and Family."[33] To maximize performance in each of the POTFF domains—physical, psychological, cognitive, social/family, and spiritual—USSOCOM used embedded and specialized professionals and built multidomain cross-functional teams, offering a proactive approach to building resilience within its members. This program increased access to specialty services like family counselors, nutritionists, personal trainers, and behavioral health scientists and worked to minimize the stigma associated with seeking mental health care.[34] In just four years after the program was originally funded, special operators in regular mental health treatment rose 77 percent, and Congress made the authority permanent in the Fiscal Year (FY) 2018 National Defense Authorization Act.[35]

In 2020, after years of POTFF success, AFSOC leaders decided to unite all Air Force helping agencies under one umbrella—the AFSOC Integrated Resilience Optimization Network (IRON). The initiative shares the same domains and concepts as POTFF but embeds its own IRON lead representatives for each performance domain in all AFSOC wings to specifically meet the needs of air commandos and their families.[36] AFSOC holds an annual IRON Summit to educate team providers on the program's growing vision and priorities, also recruiting subject matter experts to give presentations on best practices and techniques for members to consider implementing within their respective wings. In July 2023, during the opening ceremony of the most recent summit, AFSOC's deputy commander Brig Gen Rebecca Sonkiss emphasized the importance of sustaining a support network dedicated to taking care of the air commandos and stated that "what we do now to evolve our developmental programs and curriculum is pivotal to how we shape our formation for the future." In less than five years since its creation, the number of IRON program providers increased from thirty-three performance providers serving 800 Airmen to more than 140 providers serving 20,000 Airmen.[37]

Comparing Outcomes

Each organization presented in this section represents its own military subculture. The 341 MW represents a subculture of Air Force missileers, defenders, and maintainers who are considered deployed in place stateside due to the nature of their profession, while AFSOC represents a subculture of Air Force members who constantly deploy overseas and conduct global operations to support the advancement of US policies and objectives. Furthermore, the 341 MW has commonly operated on the principles and priorities of the Cold War era with a primary focus on the mission of Air Force Global Strike Command, which is deterrence of enemy aggression and assurance of safety and protection for our partners and allies. The Special Operations community, on the other hand, has commonly operated on five distinct truths, with the first truth being "Humans are more important than hardware."[38]

In the examples provided, one organization struggled to introduce recurring resilience training within its wing, while the other rapidly expanded its network. A compelling argument for causation could be effective leadership influence, as "deliberate role modeling, teaching, and coaching is a primary embedding mechanism that communicates organizational values and assumptions through the visible behavior of leaders."[39] When leaders are committed to an effort and model specific behaviors that echo their intent, followers take note, making it easier to transition to a new norm. However, two other factors should also be considered as to why one organization yielded less than ideal results while the other continues to flourish.

First, one of the greatest influences on an organization's culture is the environment within which it operates.[40] The 341 MW operates an alert schedule where free time is limited and sacred to its members. Adding additional training to a member's schedule can be seen as a burden or interference with their off-duty liberties. The AFSOC community differs in this aspect because physical training and mental preparation have always been key elements to effective deployment operations. There is no additional strain to their schedule by adding new elements. In fact, these new elements are considered upgrades from the standard offerings and serve as a catalyst to improving the quality of life for AFSOC Airmen.

Second, as each unit has a vastly different mission set, their subculture identities differ. The 341 MW identifies as "alert pullers" who

deploy in place to missile alert facilities for short spans, do their job, and then return home. On the other hand, AFSOC members identify as "war fighters" due to the uniqueness of their deployments in both scope and requirements.[41] Therefore, resilience may be held in a higher regard by the AFSOC community given the unknown duration and nature of their missions. The new ATF model seems to align more closely with the tempo of the Special Operations community.

From Old to New: The History of the Air Task Forces Model

With roots dating back to World War II, ATFs were established by Gen George C. Kenney, who commanded the air forces in the Southwest Pacific theater and created the ATF structure to establish units capable of independent operations in response to the challenges posed by distance and poor communication during wartime. With a core command structure usually built around a bomber wing, General Kenney exercised centralized control of the ATFs but let the task force commanders handle the detailed operational planning. ATFs were equipped with a permanent operational planning staff of Army Air Force members and complemented with a rotation of sister service personnel from Navy and Marine units.[42] Though the construct proved successful, it was specific to the requirements of the nature of war during that time frame and eventually disappeared during peacetime after 1947.

The Reemergence

During the Air and Space Forces Association's Air, Space and Cyber Conference in September 2023 and shortly after the release of the "One Team, One Fight" memorandum, Secretary Kendall announced the creation and approval of ATFs as the next step in the Air Force's Force Generation (AFFORGEN) model. In an ongoing initiative to cultivate advanced preparedness for the future, the repurposed ATF construct furnishes the Air Force with distinct operational units at a sustainable rate for deploying and posturing forces. To sustain the ATF model, Airmen will be sourced from across the Air Force to fulfill leadership, special staff, and A-staff roles as required.[43]

Unlike the current deployment sourcing model (air expeditionary force) where an individual Airman or small group is tasked to deploy on short notice, "ATFs will team, train, and deploy together through

the AFFORGEN cycle."[44] The proposed structure "establishes a 24-month rotational cycle with four, six-month-long phases: the 'reset' phase for reintegration and reconstitution; the 'prepare' phase for training toward peak readiness; the 'certify' phase for validating deployment readiness; and the 'available' phase for tasking."[45] This course of action will allow units to focus on building, certifying, and deploying together as a cohesive element and provide a successful posture capable of fighting across all spectrums of conflict. As previously mentioned, the Air Force has developed six ATF units that will deploy across two cycles as pilot programs to test the validity of the model. The first three ATF units will enter the AFFORGEN cycle in summer 2024 in the reset phase and will deploy in the first half of calendar year 2026. The next three ATF units will be slated to deploy mid-2026.[46]

Recommendations

In early 2023, AFSOC formally announced its new battle rhythm for deployment readiness, and it is easy to conclude that the ATF model shares structural similarities. AFSOC's battle rhythm will also work in four phases: the "individual" phase, which focuses on reintegration, recovery, and reconstitution; the "unit" phase for intensive training with ample exercises and integration with partners across the force; the "joint-collective" phase, which focuses on theater-specific training that will indicate maximum readiness and preparedness of the unit; and finally, the "commit and deploy" phase where units are either deployed, fully operational, or responding to a crisis.[47] The overall war-fighter identity of special operators directly aligns with the intent of ATF implementation, which is to provide the Air Force with a distinctive "warfighting unit of action."[48]

With their obvious similarities, lessons learned from the implementation of POTFF and IRON may seem like easy answers when considering recommendations for resilience training and programs within the ATF structure. However, the Air Force is an organization that learns just as much from its failures as from its successes. In fact, ingenuity and innovation seem to thrive mostly in organizations with broken processes and programs. Therefore, the lessons learned from the 341 MW and AFSOC examples in this chapter should be used to establish a way forward for resilience training implementation. The overall recommendation features a twofold approach: (1) Embed MRTs directly into ATF units as

a pilot program to deliver recurring resilience training, and (2) closely mirror AFSOC's pre-established and successful IRON framework with minimal need to reinvent the wheel.

Embedding MRTs

When the Air Force adopted Resilience Skills Training as a key CAF component in 2012, the Master Resilience Training Course was fashioned to "educate and provide essential information, processes, and resources through interactive lecture, guided discussions, and role plays developing the knowledge and skills of DAF Master Resilience Trainers." The total FY capacity for students is 460, and in FY 23 alone, the Air Force graduated 360 students from the MRTC.[49] When the 341 MW started using its MRTs, the feedback from Airmen during FTAC was positive and shed light on the potential effectiveness that utilizing resilience trainers in the right manner could have on personnel.

Though the program seemed to fail from a lack of comprehensive leadership buy-in, a complex operating environment, and a cemented organizational identity, the ATF has a fresh opportunity to influence the delivery of resilience training to its personnel because it has yet to generate its cultural footprint. Furthermore, drawing from AFSOC similarities, ATF units have already established deployment and training cycles but have yet to determine training requirements. The command element of each ATF will play a vital role in determining what these requirements will entail, and it would be best for ATF leadership to add CAF-inspired resilience training to its mix. This ensures that the addition of recurring resilience training led by a MRT does not disturb any preexisting work schedule, and by creating the habitual practice of training, ATF leaders wield the ability to underpin how their organization will function.[50] However, although MRTs will be integral to this process, they are only one piece of the puzzle.

Copycat: IRON Framework Utilization

When AFSOC decided to forge its IRON initiative, it built a framework designed to optimize "resiliency programs and resources within AFSOC, ultimately making them more effectively communicated, and providing the most benefit for Airmen and their families."[51] Though the Preservation of the Force and Family program set the tone for similar initiatives to follow, IRON offers an Air Force–specific model for similarly structured organizations to duplicate. At a minimum,

ATFs should work to build cross-functional teams across installations consisting of chaplains, behavioral health providers, physical therapists, and conditioning coaches to assist MRTs in providing a holistic wellness approach, like the Operational Support Teams (OST) program implemented by the Air Force Surgeon General.

The benefit of building cross-functional teams with, at a minimum, the specialties mentioned is that it employs all five of the CAF pillars and meets the overall intent of the model. Because CAF was not created to be a standalone program, using existing resources combines efforts in a manner to best optimize resilience in ATF personnel. Even if funding proved to be an issue to expanding an initiative like IRON, the MRT can work with other Air Force organizations to create cooperation agreements to best meet the needs of ATF members. For example, if an ATF could not procure the funds or a billet to embed behavioral health providers directly into the unit, a cooperation agreement with the medical group could ensure that there would be a provider solely dedicated to ATF members for specified hours during the week.

Conclusion

It is rare for military commanders to have a reasonable timeline to influence a massive shift in cultures with a distinct heritage. In a standard two-year command assignment, leaders often discover that "changing culture is like trying to turn a large cruise liner."[52] It is a slow process, taking time and patience. Though efforts may be substantial, the race against the clock usually proves to be costly to the cause. Rarer still than influencing culture is the opportunity to shape an organizational culture at its origin.

The implementation of ATF units provides a unique opportunity to create a new cultural footprint, as it is possibly the most significant shift in the Air Force since the establishment of the United States Space Force (USSF) in 2019. As it grapples with creating its culture and an identity for its Guardians, the USSF is still young and agile, with no long-standing rituals or practices. Thus, it is the optimal time to influence and build its organizational culture. The same sentiments ring true for establishing an organizational culture within ATF units that embraces CAF as the primary vehicle for facilitating strong resilience practices.

This research concludes that adding MRTs and cross-functional teams to the ATF organizational structure can prove beneficial in helping

members deal with adversity, especially during these times of uncertainty as we shift to a new era of combat. Strengthening ATF member resilience, both as individuals and as members of teams, can only be cemented by maximum leadership buy-in, bold action, and recognizing that while "few leaders ever get the opportunity to shape an organization's culture from its inception, those who do often have an outsized influence on its future orientation."[53] ATF leadership stands at a pivotal position to build resilience into the values of their organization.

Notes

(Endnotes are presented primarily in shortened form. For more information, see the appropriate entry in the bibliography.)

1. Kendall, memorandum.
2. Secretary of the Air Force, "USAF Units of Action."
3. Kendall, memorandum.
4. Mansoor and Murray, *Culture of Military Organizations*, 13.
5. Wadsworth, Bailey, and Coppola, "US Military Children and the Wartime Deployments of Family Members," 2.
6. Conforte et al., "Assessing Military Community Support," 1871.
7. Air Force Instruction (AFI) 90-5001, *Integrated Resilience*, 45.
8. AFI 90-5001, 4.
9. Department of the Air Force (DAF) Integrated Resilience, "Comprehensive Airman Fitness."
10. 152nd Airlift Wing, "High Rollers' Comprehensive Airman Fitness Program."
11. Hom et al., "Help-Seeking and Mental Health Service," 61.
12. DAF Integrated Resilience, "Comprehensive Airman Fitness."
13. 152nd Airlift Wing, "High Rollers' Comprehensive Airman Fitness Program."
14. 152nd Airlift Wing.
15. AFI 36-815, *Leave*, 18.
16. DAF Integrated Resilience, "Comprehensive Airman Fitness."
17. 152nd Airlift Wing, "High Rollers' Comprehensive Airman Fitness Program."
18. McGene, *Social Fitness and Resilience*, 5.
19. The dimensions of thwarted belongingness include loneliness and the absence of reciprocal care. Chu et al., "Interpersonal Theory of Suicide," 3.
20. DAF Integrated Resilience, "Comprehensive Airman Fitness."
21. 152nd Airlift Wing, "High Rollers' Comprehensive Airman Fitness Program."
22. Meadows, Miller, and Robson, *Airman and Family Resilience*, 32.
23. Meadows, Miller, and Robson, 2.
24. Mansoor and Murray, *Culture of Military Organizations*, 1.
25. Schein and Schein, *Organizational Culture and Leadership*, 7–8.
26. Mansoor and Murray, *Culture of Military Organizations*, 1.
27. Hallsell, "Integrated Resilience Program at Malmstrom AFB."
28. Hallsell.
29. Hallsell.
30. Hallsell.
31. Hallsell.
32. Woods, "Elite Troops Spent 15 Years at War."

33. Special Operations Command, "Preservation of the Force and Family."

34. Special Operations Command.

35. Woods, "Elite Troops Spent 15 Years at War"; and Congressional Research Service, "FY2022 NDAA: Preservation of the Force and Family Programs," 1.

36. Air Force Special Operations Command (AFSOC), "Building Resiliency with IRON."

37. AFSOC, "Second Iteration of IRON Summit."

38. Caruso, "SOF Truths . . . Relationships Truly Matter." The other four truths are "quality is better than quantity, Special Operations Forces cannot be mass produced, competent Special Operations Forces cannot be created after emergencies occur, and most special operations require non-SOF assistance" (Caruso).

39. Mansoor and Murray, *Culture of Military Organizations*, 29.

40. Mansoor and Murray, 11.

41. Special Operations Command, "Preservation of the Force and Family."

42. Air Force Doctrine Publication (AFDP) 1-1, *Mission Command*, 2.

43. Secretary of the Air Force Public Affairs, "SecAF Announces Air Task Force Model." A-Staff is "a standardized organizational structure, representing the following Air Force functions: A1 Manpower, Personnel, and Services; A2, Intelligence; A3, Operations; A4, Logistics and Engineering; A5, Plans and Integration; and A6, Communications." Secretary of the Air Force Public Affairs, "USAF Units of Action."

44. Secretary of the Air Force, "Air Task Forces Defined"; and Secretary of the Air Force Public Affairs, "USAF Units of Action."

45. Secretary of the Air Force, "Air Task Forces Defined."

46. Secretary of the Air Force.

47. Gentile, "919th SOW Adapts to AFSOC's New Warfighting Model."

48. Secretary of the Air Force, "Air Task Forces Defined."

49. Air University, "Master Resilience Trainer Course (MRTC)."

50. Mansoor and Murray, *Culture of Military Organizations*, 1.

51. AFSOC, "Building Resiliency with IRON."

52. Mansoor and Murray, *Culture of Military Organizations*, 2.

53. Mansoor and Murray, 449.

8

Are You GAME?

Team Resiliency: An Imperative to Mission Command and Agile Combat Employment

Maj Joseph P. Regan, USAF

Air Mobility Command Perspective

Stepping outside the focus on individual resilience and recognizing the need for teams that are capable of functioning in complex, contested, and disconnected environments is a necessity. The ability to manage the complexity of warfare will be even more crucial in the age of Great Power Competition. Building, strengthening, and intentionally developing teams with high resilience is a mission imperative not just for Air Mobility Command but for the entire Air Force. Teams will require the ability to assess changing situations, cope with uncertainty, take necessary risks with appropriate safeguards, and adapt to the new normal. This must all be accomplished while propelling the mission forward. The need for high resilience, sound decision-making, and adaptation to the new or unknown is of immense importance in the age of distributed operations and contested command and control. The questions leaders face are: How are resilient teams built, and how can we develop them now so they are ready when called?

In the Aftermath of a Suicide Attempt

All we had was each other, we were family and I loved them. I was inspired every day by their accomplishments

—Sgt Maj John L. Canley, USMC, Medal of Honor Recipient (Vietnam)

More than ten years ago, a small group of Air Force members was deployed in and around Afghanistan, working with an Army brigade on the first drawdown from the country to retrograde US assets out of Afghanistan. At the time, the mission to collect US assets across Afghanistan after many years of operations was a tall order. The mission demanded time, dedication, and commitment. The environment fostered long hours and high stress to ensure packaging, shipping, and accountability were completed in time to keep up the flow of assets out of theater. Each of the Air Force members involved in the retrograde operation lived, breathed, and ate together.[1]

Removed from the sanctuaries of home, the teammates collectively carried on the mission under daily conditions consisting of 120-degree temperatures and numerous indirect rocket attacks. In coordination with Army counterparts, the team embarked on retrograding six billion dollars of US and coalition assets considered, at the time, one of the largest retrograde operations in US history. The effort required twelve- to eighteen-hour days traveling around Afghanistan, accounting for assets, and establishing the plans and execution for moving all the equipment. These conditions, coupled with the pressure to achieve the mission, created an adverse environment that was challenging for everyone on the team. But for one Airman, who was also experiencing challenges in a variety of the Comprehensive Airman Fitness domains (mental, physical, social, spiritual), the situation tested resilience and led to a suicide attempt. This event shook the team, and options to get the member immediate clinical assistance were not readily available.

In the wake of this member's suicide attempt, the immense power of social support and relationships was revealed. Other members of the team rallied to assist in the recovery of the struggling member and to help them find renewed purpose. The climactic event of the suicide attempt was interpreted as an important opportunity to support a wingman in need. Several interventions were undertaken. The first involved adapting to the situation by lifting some of the pressures of the member's demanding job, with teammates staying after their already long shifts to socially connect while also supporting any outstanding tasks. In addition, team members discussed the personal struggles weighing on the member in a safe, positive environment and shared their own difficult experiences along with their coping strategies, affirming that they had emerged from similar challenges stronger than before. Toward the end of the tour, the once-suffering member began to show signs of recovery and a reignited purpose.

Introduction

When an individual raises a right hand and swears an oath to protect the Constitution and the American people, that individual surrenders to a higher calling. Defending one's country requires sacrifice on various levels, including one's life. However, the number of individuals willing to commit to that level of sacrifice has declined since World War II. In the early 1940s, roughly 39 percent or 10 million Americans served,[2] compared to today where fewer than 1 percent (1.2 million) serve.[3] With a limited number of service members to carry out critical functions, plans and preparation for the immense challenges of a prospective peer conflict become critically important.

The military profession is not shielded from the ordinary challenges of life and, if anything, faces additional burdens not found in most other professions. The fluidity of the military environment between peace and wartime, combat life and personal life, and training versus real world compound to bring exponential challenges to military members and their families. Along with extended periods of separation from friends and family in support of temporary duty requirements or deployments, many members experience multiple moves throughout their careers, uprooting their homes and degrading any sense of stability. Ultimately, the profession of arms calls for great sacrifice, including one's life, if necessary. To that end, military service requires members to be ready to meet whatever challenges they encounter to get the mission done. Over the last few decades, the US military has largely experienced success throughout conflict. However, the possibility of warfare against a highly capable peer adversary will challenge the most resilient, battle-hardened units and war fighters. Setting up our service members and missions for success requires a re-examination of how individuals and teams across the Department of Defense are prepared for combat.

A prospective future conflict against a peer adversary will demand a great deal from our members in uniform. A conflict against a peer adversary well equipped to destroy, disrupt, and devastate US interests at home and abroad, reminiscent of World War II, could generate overwhelming conditions. The joint force must prepare for stressful environments and ready junior leaders to manage chaos to produce results while also caring for members in their formations facing traumatic stress. As the Air Force prepares for possible conflict against a peer adversary, executing the concepts of agile combat employment

(ACE) and mission command will require an essential element: team resilience. This chapter identifies strategies for building resilient teams to ensure small team success within the broader Air Force and joint force future conflicts. Team resilience is essential to success within ACE and mission command contexts.

The Future Operating Environment

During the last twenty-four years in the Global War on Terrorism, the US and its coalition partners have benefited from an asymmetric advantage in military capability. Moving now from a primary focus on violent extremist organizations to peer adversaries represents a major paradigm shift that requires deliberate planning. Our forces must prepare for an environment where there is no sanctuary to rest and recover. The future operating environment may be riddled with disruption and chaos from kinetic and nonkinetic attacks, which will impact the logistical flow of supplies, damage maintenance facilities, and likely injure and kill friendly personnel in the vicinity of the operations.[4] This shift will require US forces to develop new tactics, techniques, and procedures to thwart enemy attacks and to field a resilient force capable of overcoming possible traumatic events, adverse conditions, and a myriad of setbacks to achieve operational, strategic, and national level objectives.

Agile Combat Employment and Mission Command

Posturing the future operating environment requires a shift in the US Air Force's organizational framework. The Air Force has adopted ACE to meet joint operational requirements and contend with the possibility of an adversary delivering a devastating blow to US and coalition operations. ACE is defined as "a proactive and reactive operational scheme of maneuver executed within threat timelines to increase resiliency and survivability while generating combat power." Smaller teams of Airmen disperse, overwhelming the enemy's calculus of targets and creating a dilemma, as their ability to locate our friendly forces will be thwarted.[5] The operational success of ACE will depend largely on the team assembled at these geographically separated forward operating bases. Each team associated with ACE must be able to maintain and advance their set of mission objectives to achieve the joint forces

theory of victory for the campaign.[6] The rapid movement and maneuvers, as well as denied and degraded communications associated with ACE, highlight the importance of team resilience in mission success.

The success of ACE on the battlefield will depend largely on the decentralization of command and control, as indicated in Air Force Doctrine Publication (AFDP) 1-1, *Mission Command*. According to this doctrine, mission command "is a philosophy of leadership that empowers Airmen to operate in uncertain, complex, and rapidly changing environments through trust, shared awareness, and understanding of commander's intent."[7] As ACE changes how the Air Force organizes, trains, and equips its forces, it will be incumbent on our junior leaders to understand the environment and potential threats to their resilience and that of their teammates to ensure successful outcomes.

Defining Team Resilience

The concept of team resilience is closely aligned with the literature and study on organizational resilience. For the context of this chapter, *team resilience* is the "ability of an organization to maintain functions and recover fast from adversity by mobilizing and accessing the resources needed."[8] The Air Force defines *resiliency* as "the ability to adapt and recover from adversity or stress and to maintain a sense of well-being and sustained performance while evolving through change."[9] Resiliency for a team versus an individual is "conceptually different," as one looks at an entity and the other at a human being.[10] However, supporting the interconnection of multiple resilient subsets, this chapter employs Andrew Zolli and Ann Marie Healy's definition of *resilience* as the "capacity of a system, enterprise, or a person to maintain its core purpose and integrity in the face of dramatically changed circumstances"[11] to illuminate connections among organizational, team, and individual resilience.

Process Models Supporting Team Resiliency

Operation Neptune Spear, the successful 2011 raid that captured Osama bin Laden, and the Miracle on the Hudson, the 2009 commercial flight crash-landing on the Hudson River in New York in which all aboard survived, both encompassed dynamic teamwork in the face of challenging events to avert catastrophic failure. They are fitting

examples of the criticality of team preparation for adverse conditions and lend validity to the organizational process models supporting resiliency described below.

A 2018 study of three engineering firms in the United Kingdom that experienced crisis situations found that the companies demonstrated forms of resilience along a continuum between rigid and reactive to proactive and agile, resulting in a matrix with high-risk, process-based, resourceful, and resilience-focused configurations.[12] The authors cite that no "one-size-fits-all" configuration exists for responding to a crisis but is context-dependent.[13] The study concluded, however, that companies that prepared and adapted were more likely to survive and thrive after a crisis event.

Organizational resiliency is a vital part of the military culture, but again, there is no universal approach.[14] The research described above highlights the prospective dangers of rigid procedures and an inability to adapt, such as in a unit where standard operating procedures inhibit the capacity to think and act outside of the norm, stifling creative thought and innovation. However, "left of bang" preparation can enable military members to move toward a positive solution before a crisis occurs, building and reinforcing organizational resilience.

A 2019 study by Stephanie Duchek presents a model for organizations and teams to overlay an "offensive response" to unexpected events or challenges that teams face.[15] The author references *offensive* as adapting to the new environment or circumstance.[16] Conversely, a *defensive* response would be resistance to or recovery from the situation.[17] The framework for an organizational offensive model requires a proactive approach, encompassing the processes of anticipation, coping, and adaptation. Duchek views these three elements as a constant loop with the power and ability to push one's organization past the crisis into a new normal.

Duchek's work highlights key mechanisms required for organizational resiliency, which organizations and groups can adopt to prepare for and weather adversity. Within the Air Force, Duchek's work could be viewed as vitally important to the operational (wing) and tactical (squadron/flight) levels of warfighting. From these levels, the Air Force provides forces to combatant commanders for use in future operations, and it is at these levels where they are more prone to encounter adverse scenarios. As the Air Force continues to develop ACE and the culture of mission command, it behooves our current

and future leaders to apply the core principles of Duchek's model to prepare for prospective future challenges.

In *Team Resilience: How Teams Flourish Under Pressure*, George Alliger et al. focus on austere and challenging environments where "sustainable team performance is only possible when the team is resilient," underscoring the imperative of human-to-human coordination and collaboration in chaotic times.[18] Studying twenty-five years of data, the authors found that resilient teams "maintain their team health and resources" and showcase credibility and capability to handle any challenge that may lie ahead. Resilient teams process challenging situations by minimizing mistakes, managing the situation at hand, and mending the broken process for future benefit, solving complex problems quickly and efficiently.[19] A deterioration in team resiliency, like team members becoming more focused on themselves than on the group, leads to a higher likelihood of "negative outcomes."[20] The minimizing, managing, and mending playbook drawn up by Alliger and his colleagues provides a useful strategy for successfully managing adverse conditions. Tempering the severity of the challenge involves following the processes and ensuring that team cohesion is strengthened.

The after-action reports of the bin Laden raid and the Miracle on the Hudson highlighted an intense level of preparation and training before the event.[21] SEAL Team Six and US Air Captain Chesley Sullenberger and his copilot, respectively, emphasized team dynamics in anticipating, coping with, and adapting to the changing and arduous conditions. When the Air Force is called upon to operate in the future operating environment, process-based models like those described above can assist resilient leaders with the know-how to forge resilient teams to enable positive mission outcomes.

The Importance of Culture, Leadership and Teamwork

To the civilian community, the military is often cited as a standard for leadership principles. However, several studies from the civilian sector provide valuable insights into management techniques and practices that translate perfectly into military leadership applications. No one person holds all the answers to bettering an organization; thus, it is incumbent for military members to draw from all sources to continuously develop and grow. This section reviews studies found outside the military complex to assist middle managers, such as company grade

officers and junior NCOs, to better their culture, leadership, and teamwork and, ultimately, increase their organizational resiliency.

A study by Dusya Vera et al. emphasizes the importance of positive culture and leadership in building resilient teams. The authors present organizational resilience through their model of assessing, accepting, and adapting (or the "three A's") and also highlight positive leadership as an essential factor in taking an organization from surviving to thriving.[22] Positive leadership resources in their model encompass four distinct subsets described as the "four P's": (1) positive climate, (2) positive relationships, (3) positive communication, and (4) positive meaning.[23] Together, the three A's and four P's offer a formula for cultivating a thriving organization.

This study has important applications for the military. First, the three A's process model and four P's of leadership establish a culture for thriving team dynamics. Second, under the ACE construct, small teams dispersed across the area of responsibility will require both strong leadership and team cohesion to be effective for the overall joint force, and the model offers junior leaders within the mission command construct a road map to lead effectively in austere environments. Finally, the four P's of leadership highlight the relationship between the team and the individuals. Specifically, positive meaning (or one's drive) and positive climate support individual purpose and an environment that facilitates caring. Overall, the positive leadership depicted in this study acts as a force multiplier to enhance a team's ability to move beyond adverse conditions—repurposing its pain and discomfort into lessons learned and team building—which can help organizations better prepare for and withstand future challenging events.

The importance of leadership in cultivating resilient organizations is likewise highlighted by Bridgette Theurer and Irvine Nugent in their podcast. They describe *resilient organizations* as those that "possess the leadership capacity to face and surmount adaptive challenges in a sustainable way."[24] Their discussion identifies leadership as fundamental to an organization's ability to move past challenging situations. Through the childhood story of Goldilocks, they sum up leadership's influence on resiliency: organizations can be too soft/comfortable or too hard/challenging, but those organizations with just the right kind of leadership during a crisis are the ones that will thrive. The "just right" style of leadership involves having purpose, which involves being thoughtful, steady, clear, and hyperfocused. Likewise, the right leadership encourages taking risks and learning from mistakes made

along the way.[25] To that end, resilient organizations in the military are accountable to their team and the mission, enabling individual and organizational growth. Purpose, accountability, and risk management are key elements in building a resilient organization.

In *Linking Employee Resilience with Organizational Resilience,* Fu Liang and Cao Linlin investigate the interconnections between organizations and employees, noting their coping mechanisms in times of crisis—problem-focused and emotional-focused.[26] The authors examined 1,095 questionnaires from seven private Chinese companies and two state-owned enterprises to analyze the positive and negative effects of the two coping mechanisms on resilience. As part of their study, the researchers explored how the coping mechanism of a company's employees affected the organization. Employees found to have an emotion-focused coping skill concentrated on control of "stressful emotions or physical arousal," which ultimately produced a negative correlation to organizational resilience.[27] Problem-focused coping, characterized by employees working together to solve a problem, produced a positive correlation with organizational resilience. More importantly, the study shed light on the importance of mid-level leadership and the influence it has on employee well-being and coping methods. The study provides evidence that middle management and human resources may directly influence employee and organizational resiliency through "policies and practices aimed at professional knowledge, creativity, and crisis response strategies."[28] It is middle managers or the first-line supervisor—with the most day-to-day interaction with the team—who can see employee reactions to a problem and step in to guide the individual or team toward a more productive solution. This study offers valuable lessons for the Air Force, which can potentially strengthen resiliency by linking strong mid-level leadership (O-1 to O-3 and E-5 to E-6) to problem-focused coping.

In a study of resilience during COVID-19, Daniela Gröschke and colleagues explored the effects of the pandemic on health care workers and hospitals in Germany.[29] Their research identified three key findings in the relationship between organizational resilience and individual resilience. First, individual and organizational resilience are interconnected. Second, individual resiliency is mediated by organizational resiliency. And third, "resilient behaviors among employees will be related to positive outcomes, even when circumstances are challenging or highly stressful, but only to the extent that the organization fosters a resilience-building context."[30]

The research findings suggest that resilient organizations and teams can enhance an individual's capacity to "cope and learn" during and after a challenging situation.[31] As these studies and others suggest, fostering organizational resilience with its leader.[32] For success under the ACE construct, the Air Force must ensure it has "highly committed leaders" who can recognize the situation, prepare in advance, and become agile when a crisis occurs.[33]

The studies described showcase the importance of culture, leadership, and teamwork in building resilient teams. The mission command approach to command and control is essential for the ACE application of airpower, and it is crucial for mission commanders to properly forge the team's ability to withstand adverse conditions and continue the fight. Great responsibility lies in building a positive culture and team cohesion while also supporting individual resilience in team members. The combined approach, driven by the mission commander, is imperative for overall team resiliency.

Recommendations

The following recommendations stem from the author's extensive study of team resilience along with years of operational and leadership experience in the Air Force. These recommendations focus on improving our Air Force teams to achieve joint force objectives in adverse conditions not seen in over three decades of warfare. Culturally, we have operated in an environment in which additional assets and functional experience could be tapped as needed, both overseas and stateside, as we organized, trained, and equipped for the joint fight. We have had the luxury of depending on external resources, outside of the small team construct, for a way forward. However, a future fight against a peer adversary might not allow the time, funding, or opportunity to access such resources, requiring an internal approach that targets a change in Air Force culture and operating practices. This culture change will inherently involve an assumption of greater risk. ACE and mission command will require a certain level of risk in affording more leaders the ability to make decisions. However, the risk of *not* endowing more leaders with this decision-making authority is even greater. Empowering our junior officers and NCOs to be bold and fail forward requires not just rhetoric but a culture change that enables resiliency to continue effectively executing the mission. Together, members of a team must

be equipped with the right tools and knowledge to strengthen themselves and propel each other forward.

Branding Team Resilience—Are You GAME?

The elements of resilient teams are not a secret, but they can be difficult to harness if everyone on the team is not on the same page. Teams that make it through challenging situations have prepared, worked through trials and tribulations, and learned from the lessons of failure to build stronger tolerance toward adverse conditions. This comes through individual learning, building connections, and cohesion between teammates. Air Force training encompasses many of these attributes for building resilient teams, but it is missing an overarching brand that represents and reinforces resiliency, or as Daniel Coyle in *Culture Code* calls it, a "crisp nudge in the right direction."[34]

GAME

GAME stands for *gather*, *acclimate*, *motivate*, and *execute* and is a process-based framework for reminding teams how to effectively navigate new or challenging situations. Like Col John Boyd's OODA (observe, orient, decide, act) loop, GAME is a continuous process geared toward dynamic situations and the teammates involved.[35] The word *game* is popular in pop culture and resonates across generations and military ranks, especially when thinking of sports, videogames, and reality game shows. The elements of GAME are built for small and large team constructs and include each teammate's well-being and contributions (fig. 8.1).

Gather. This element brings the team together before, during, and after an adverse situation to manage in a team construct. It will be especially important for individuals on the team to have a complete understanding of the task at hand and for each to contribute ideas and solutions. What can be expected when teams gather? Gathering provides purpose to the team and the individual, and it also allows teams to anticipate future problems, managing and coping through adverse situations whether the atmosphere is tranquil or tense. When teams form up to discuss the operating environment, all parties can consider potential situations and plan a course of action to reduce or eliminate the challenges.

Acclimate. Adjusting to adverse conditions requires the team to fully understand the problem and adapt to the loss of capabilities or

personnel that are normally present and providing support. After and potentially during a crisis, adaptation becomes pivotal for team success. Acclimatizing can be accomplished in various ways depending on team dynamics. The team must be able to work and operate with the cards they have been dealt. It can be difficult for teams to move in a new direction, especially if team members have operated under the same construct for years. In this case, it is incumbent on leaders to possess sound change management skills to gain buy-in and motivate members past the change.

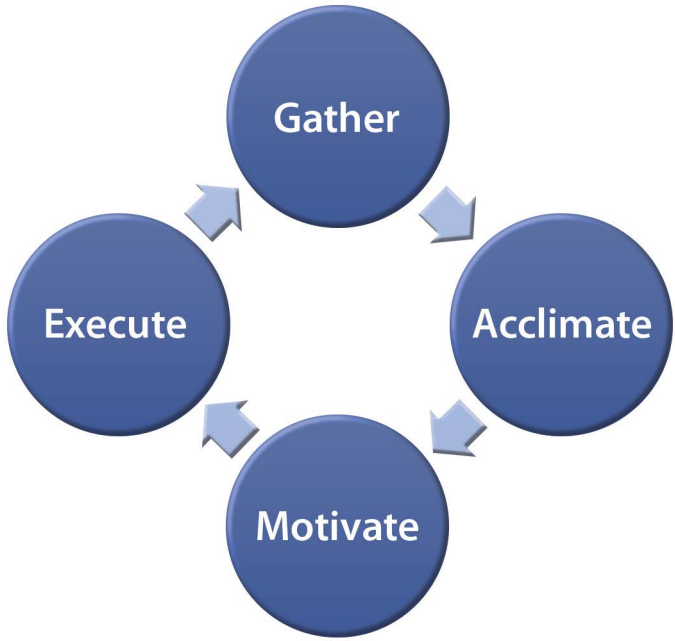

Figure 8.1. Gather-Acclimate-Motivate-Execute (GAME) model. (Developed by Maj Joseph P. Regan, USAF.)

Motivate. Often overlooked, motivation is an imperative in adverse conditions. From a simple head nod that all will be okay to the George W. Bush speech on Ground Zero after the events of 9/11, forms of motivation take all shapes and sizes. The capacity to discern what kind of motivation works in any given circumstance—including timing, delivery, and messaging—is crucial. Motivation comes from knowing the team and establishing relationships, whether through regular communication or distinct interactions. These elements foster team cohesion

and connectedness through words of affirmation and discerning when a teammate needs a hand up if struggling or a high-five for a job well done. The value of motivation comes from its use as a driving force toward progress, enabling teams to execute with passion and purpose.

Execute. This element encompasses action. Combatant and subordinate commanders depend on their teams to execute effectively to reach their desired end state. In this step, teams engage and resolve complex challenges through risk tolerance and problem-solving, both professionally in team execution and personally in relationships with one another. Doing so ties the team back to its purpose and the "why" behind the execution in the first place, ultimately maintaining team cohesion and effectiveness.

As noted previously, GAME starts and ends with purpose. As defined by Zolli and Healy, to be *resilient* is "to maintain core purpose and integrity in the face of dramatically changed circumstances."[36] These qualities can apply to individuals and teams. The idea of GAME may not resonate with all, but its core principles and characteristics highlight the need for junior leaders, officer and enlisted, for building and maintaining effective, foundationally resilient teams.

Conclusion

The art of war demands the utmost sacrifice and resilience from its warriors. The story of an averted suicide acknowledges the environment many teams and individuals experience when in austere conditions far from home. Mission commanders and leaders have the charge to properly prepare their teams for potential challenges within the future operating environment—an environment wherein peer capabilities match one another, eerily reminiscent of World War II. ACE and mission command are effective strategies against a peer adversary, but they are not the secret ingredient.

Our teams and the people in them have always been and always will be the winning factor in the future fight. Team preparation requires a holistic look at how we tackle problems. From organizational, process-based models on building resilient teams to the intangible elements of culture, leadership, and teamwork, all provide the backing to ensuring our people and our teams are not just surviving but thriving, even under the direst of circumstances. As a leader in tried and tested team resiliency, the Special Operations Command truth

that "people are more important than hardware" provides the key message—people are the foundation.[37] Developing a culture around team resilience not only enhances our ability to succeed in combat but also reaches to the individual level to support and care for our men and women in uniform.

I'm GAME. Are you?

Notes

(Endnotes are presented primarily in shortened form. For more information, see the appropriate entry in the bibliography.)

1. The events described in this section come from the author's personal experiences with colleagues.
2. National WWII Museum, "Training the American GI."
3. Schaeffer, "Changing Face of America's Veteran Population."
4. Priebe et al., "Distributed Operations in a Contested Environment," 67.
5. LeMay Center, *Agile Combat Employment*.
6. Joint Chiefs of Staff, *National Military Strategy*, 4.
7. LeMay Center, *Mission Command*.
8. Gröschke et al., "Individual and Organizational Resilience," 3.
9. Department of the Air Force, "Want to Help Others Build Their Resilience?"
10. Gröschke et al., "Individual and Organizational Resilience," 3.
11. Zolli and Healy, *Resilience: Why Things Bounce Back*, 8.
12. Burnard, Bhamra, and Tsinopoulos, "Building Organizational Resilience," 348.
13. Burnard, Bhamra, and Tsinopoulos, 348.
14. Burnard, Bhamra, and Tsinopoulos, 348.
15. Duchek, "Organizational Resilience," 223.
16. Duchek, 223.
17. Duchek, 223.
18. Alliger et al., "Team Resilience," 178.
19. Alliger et al., 178.
20. Alliger et al., 178.
21. Panetta and Bash, "Teamwork Led Us to bin Laden."
22. Vera et al., "Resilience as Thriving," 4.
23. Vera et al., 2.
24. Nugent and Theurer, "Resilient Leadership Podcast," 3:39.
25. Nugent and Theurer.
26. Liang and Linlin, "Linking Employee Resilience with Organizational Resilience."
27. Liang and Linlin, 1066.
28. Liang and Linlin, 1072.
29. Gröschke et al., "Individual and Organizational Resilience."
30. Gröschke et al., 11.
31. Gröschke et al., 11.
32. Vera et al., "Resilience as Thriving," 3.
33. Gröschke et al., "Individual and Organizational Resilience."
34. Coyle, *Culture Code*, 232.
35. Robinson, *John Boyd and the American Art of War*, 1.
36. Zolli and Healy, *Resilience: Why Things Bounce Back*, 167.
37. Lucas, "SOF Truths Provide Stability in Turbulent Times," 12.

Bibliography

ABCT Fact Sheets. "Survivors of Trauma: Combat-Related Stress." Association for Behavioral and Cognitive Therapies, n.d. https://www.abct.org/.

Adamy, Janet, and Paul Overberg. "Playing Catch-Up in 'the Game of Life:' Millennials Approach Middle Age." *Wall Street Journal*, 19 May 2019. https://www.wsj.com/.

Adler, Amy B., and Ian A. Gutierrez. "Preparing Soldiers to Manage Acute Stress in Combat: Acceptability, Knowledge and Attitudes." *Psychiatry* 85 no. 1 (9 February 2022): 30–37. https://doi.org/10.1080/00332747.2021.2021598.

Adler, Amy, Dennis McGurk, Melba Stez, and Paul Bliese. "Military Occupational Stressors in Garrison, Training, and Deployed Environments." Walter Reed Army Institute of Research, 21 March 2003. https://apps.dtic.mil/.

Air Force Doctrine Note 1-21. *Agile Combat Employment*. Curtis E. LeMay Center for Doctrine Development and Education, 1 December 2021.

Air Force Doctrine Publication (AFDP) 1-1. *Mission Command*. Curtis E. LeMay Center for Doctrine Development and Education, 14 August 2023. https://www.doctrine.af.mil/.

Air Force Instruction (AFI) 1-1. *Air Force Standards*. Secretary of the Air Force, 18 August 2023.

Air Force Instruction (AFI) 36-815. *Leave*. Secretary of the Air Force, 14 November 2019.

Air Force Instruction (AFI) 90-506. *Comprehensive Airman Fitness (CAF)*. Secretary of the Air Force, 2 April 2014.

Air Force Instruction (AFI) 90-5001. *Integrated Resilience*. Department of the Air Force, 25 January 2019.

Air Force Manual (AFMAN) 36-2643. *Air Force Mentoring Program*. Department of the Air Force, 2017.

Air Force Reserve Personnel Center. "The United States Air Force Reserve Fiscal Year 2024 Experienced Aviator Retention Incentive Program," 25 March 2024. https://www.arpc.afrc.af.mil/.

Air Force Special Operations Command Public Affairs. "Building Resiliency with IRON." Air Force Special Operations Command, 27 July 2022. https://www.afsoc.af.mil/.

Air Force Special Operations Command Public Affairs. "Second Iteration of IRON Summit Seeks to Further Collaboration." Air

Force Special Operations Command, 31 July 2023. https://www.afsoc.af.mil/.

Air University. "Air Force Wargaming Institute." Accessed 28 August 2024. https://www.airuniversity.af.edu/.

Air University. "Master Resilience Trainer Course (MRTC)." Accessed 5 April 2024. https://www.airuniversity.af.edu/.

Alliger, George M., Christopher P. Cerasoli, Scott I. Tannenbaum, and William B. Vessey. "Team Resilience." *Organizational Dynamics* 44, no. 3 (July 2015). https://doi.org/10.1016/j.orgdyn.2015.05.003.

Allvin, David W. "The Case for Change, Optimizing the Air Force for Global Power Competition." Air Force Chief of Staff, 2024. https://www.af.mil/.

Alter, Charlotte. *The Ones We've Been Waiting For: How a New Generation of Leaders Will Transform America*. Penguin, 2020.

Anderson, Valerie. 2013. "A Trojan Horse? The Implications of Managerial Coaching for Leadership Theory." *Human Resource Development International* 16 no. 3 (1 March 2013): 251–66. https://doi.org/10.1080/13678868.2013.771868.

Arli, Denni, Fandy Tjiptono, Aaron Tkaczynski, and Marat Bakpayev. "Grit: The Good, the Bad and the Ugly." *Asia Pacific Journal of Marketing and Logistics* 33, no. 5 (20 April 2021): 1270–85.

Avolio, Bruce J., and Sean T. Hannah. "Developmental Readiness: Accelerating Leader Development." *Consulting Psychology Journal* 60, no. 4 (2008): 331–47. http://dx.doi.org/10.1037/1065-9293.60.4.331.

Bartone, Paul T. "Hardiness Protects against War-Related Stress in Army Reserve Forces." *Consulting Psychology Journal: Practice and Research* 51, no. 2 (1999): 72–82. https://doi.org/10.1037/1061-4087.51.2.72.

Bartone, Paul T., Charles L. Barry, and Robert E. Armstrong. *Defense Horizons. To Build Resilience: Leader Influence on Mental Hardiness*. National Defense University, 2009.

Bartone, Paul T., and Stephen V. Bowles. "Hardiness Predicts Post-Traumatic Growth and Well-Being in Severely Wounded Servicemen and Their Spouses." *Military Medicine* 186, no. 5–6 (2021): 500–504.

Bartone, Paul T., Dennis R. Kelly, and Michael D. Matthews. "Psychological Hardiness Predicts Adaptability in Military Leaders: A Prospective Study." *International Journal of Selection and Assessment* 21, no. 2 (2013): 200–210.

Bartone, Paul T., Robert J. Ursano, Kathleen M. Wright, and Larry H. Ingraham. "The Impact of a Military Air Disaster on the

Health of Assistance Workers: A Prospective Study." *Journal of Nervous and Mental Disease* 177, no. 6 (1989): 317–28. https://journals.lww.com/.

Bashant, Jennifer. "Developing Grit in Our Students: Why Grit Is Such a Desirable Trait, and Practical Strategies for Teachers and Schools." *Journal for Leadership and Instruction* 13, no. 2 (2014): 14–17.

Bazelais, Paul, David J. Lemay, and Tenzin Doleck. "How Does Grit Impact College Students' Academic Achievement in Science?" *European Journal of Science and Mathematics Education* 4, no. 1 (2016): 33–43.

BetterUp. "United States Air Force Accelerates Mission-Readiness with BetterUp." https://www.betterup.com/.

Biden, Joseph R., Jr. *National Security Strategy of the United States of America*. White House, 2022. https://www.whitehouse.gov/.

Boiler, Linda, Merel Haverman, Gerben Westerhof, Heleen Riper, Filip Smit, and Ernst Bohlmeijer. "Positive Psychology Interventions: A Meta-Analysis of Randomized Controlled Studies." *BMC Public Health* 13, no. 119 (2013). https://doi.org/10.1186/1471-2458-13-119.

Bonanno, George A. *The End of Trauma: How the Science of Resilience Is Changing How We Think About PTSD*. Basic Books, 2021.

Bonanno, George A. "Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive after Extremely Aversive Events?" *Psychological Trauma* S no. 1 (2008): 101–13. https://doi.org/10.1037/1942-9681.S.1.101.

Boyer, Al, and Cole Livieratos. "The Changing Character of Followers: Generational Dynamics, Technology, and the Future of Army Leadership." Modern War Institute, 16 June 2022. https://mwi.westpoint.edu/.

Bradford, John. "Role Change: Are You Wasting Talent?" *Management Development Review*, 8 no. 6 (1 December 1995): 9–12.

Brown, Charles Q. "Accelerate Change or Lose." Office of the Chief of Staff, US Air Force, August 2020. https://www.af.mil/.

Browning, James William. *Leading at the Strategic Level in an Uncertain World. Leading at the Strategic Level in an Uncertain World*. National Defense University, 2013.

Browning, Morgan E., Alexandra Morena, Evelyn R. Gould, and Elizabeth E. Lloyd-Richardson. "Brief ACT for Undergraduates: A Mixed-Methods Pilot Investigation of Acceptance and Commit-

ment Therapy Delivered over Zoom." *Journal of College Student Psychotherapy* 37, no. 3 (3 July 2023): 279–99. https://doi.org/10.1080/87568225.2022.2029659.

Burnard, Kevin, Ran Bhamra, and Christos Tsinopoulos. "Building Organizational Resilience: Four Configurations." *IEEE Transactions on Engineering Management* 65, no. 3 (2018): 351–62.

Cancian, Mark F., Matthew Cancian, and Eric Heginbotham. *The First Battle of the Next War: Wargaming a Chinese Invasion of Taiwan*. Center for Strategic & International Studies, January 2023. https://www.csis.org/.

Caruso, Matthew. "SOF Truths . . . Relationships Truly Matter." Air Force Special Operations Command. Accessed 20 February 2024. https://www.afsoc.af.mil/.

Caza, Arran, Brianna B. Caza, and Mehri E. Baloochi. "Resilient Personality: Is Grit a Source of Resilience?" In *Research Handbook on Organizational Resilience*, edited by Edward H. Powley, Brianna B. Caza, and Arran Caza. Edward Elgar Publishing, 2020.

Cazayoux, Michael, and Mark DeBeliso. "Effect of Grit on Performance in Crossfit in Advanced and Novice Athletes." *Turkish Journal of Kinesiology* 5, no. 1 (2019): 28–35. https://doi.org/10.31459/turkjkin.517615.

Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3405.01. *Chairman's Total Force Fitness Framework*, 23 September 2013.

Chan, Kong Wah Cora. "Servant Leadership Cultivates Grit and Growth Mindset in Learners." *Servant Leadership: Theory & Practice* 3, no. 2 (2016): 12–22. https://csuepress.columbusstate.edu/.

Chief of Staff of the Air Force. "The Case for Change: Optimizing the Air Force for Great Power Competition." Department of the Air Force, 2024. https://www.af.mil/.

Chu, Carol. "The Interpersonal Theory of Suicide: A Systematic Review and Meta-Analysis of a Decade of Cross-National Research." *Psychological Bulletin* 143, no. 12 (2017). https://www.ncbi.nlm.nih.gov/.

Ciporen, Rachel. "The Emerging Field of Executive and Organizational Coaching: An Overview." *New Directions for Adult and Continuing Education* 2015, no. 148 (Winter 2015): 5–15.

Clausewitz, Carl von. *On War*. Edited and translated by Michael Howard and Peter Paret. Princeton University Press, 1989.

Clement, Déjà N., LaRicka R. Wingate, Ashley B. Cole, et al. "The Common Factors of Grit, Hope, and Optimism Differentially In-

fluence Suicide Resilience." *International Journal of Environmental Research and Public Health* 17, no. 24 (2020): 1–13. https://doi.org/10.3390/ijerph17249588.

Coacharya. "Coaching Organizations and Paths to Credentials," n.d. https://coacharya.com/.

Cohen, Rachel. "Perennial Pilot Paucity Puts Air Force in Precarious Position." *Air Force Times*, 16 March 2023. https://www.airforcetimes.com/.

Conforte, Allison. "Assessing Military Community Support: Relations Among Perceived Military Community Support, Child Psychosocial Adjustment, and Parent Psychosocial Adjustment." *Military Medicine* 182, no. 9, (September 2017): e1871–e1878. https://doi.org/10.7205/milmed-d-17-00016.

Congressional Research Service. "FY2022 NDAA: Preservation of the Force and Family Programs," 4 November 2021. https://crsreports.congress.gov/.

Connelly, Daniel A. "Organizational Dynamics of Toxic Leading: Obstacles and Key Concepts." *Air and Space Operations Review* 2, no. 4 (Winter 2023). https://www.airuniversity.af.edu/.

Coyle, Daniel. *The Culture Code: The Secrets of Highly Successful Groups*. Random House Publishing Group, 2018.

Credé, Marcus M. "What Shall We Do About Grit? A Critical Review of What We Know and What We Don't Know." *Educational Researcher* 47, no. 9 (2018): 606–611. https://doi.org/10.3102/0013189X18801322.

Credé, Marcus M., Michael C. Tynan, and Peter D. Harms. "Much Ado about Grit: A Meta-Analytic Synthesis of the Grit Literature." *Journal of Personality and Social Psychology* 113, no. 3 (2017): 492–511. https://doi.org/10.1037/pspp0000102.

Dam, Aaron, Thomas Perera, Michael Jones, Marianne Haughy, and Theodore Gaeta. "The Relationship Between Grit, Burnout, and Well-being in Emergency Medicine Residents." *AEM Education and Training* 3, no. 1 (25 November 2018): 14–19. https://doi.org/10.1002/aet2.10311.

Datu, Jesus Alfonso D., Jana Patricia M. Valdez, and Ronnel B. King. "The Successful Life of Gritty Students: Grit Leads to Optimal Educational and Well-Being Outcomes in a Collectivist Context." In *The Psychology of Asian Learners*, edited by Ronnel B. King and Allan B. I. Bernardo. Springer, 2016.

Defense Health Agency. "Combat and Operational Stress 101: Part I—Understanding Stress and Taking Care of Yourself." PowerPoint presentation, 2021. https://www.health.mil/.

Defense Health Agency. "Combat and Operational Stress 101: Part II—Taking Action for Yourself and Your Buddy." PowerPoint presentation, 2021. https://www.health.mil/.

Department of Defense (DOD) Directive 4715.21. *Climate Change Adaptation and Resilience*, 14 January 2016. https://www.esd.whs.mil/.

Department of Defense Instruction (DODI) 6490.05. *Maintenance of Psychological Health in Military Operation*. Department of Defense, 29 May 2020. https://www.esd.whs.mil/.

Department of Defense. *National Defense Strategy of the United States of America.* Office of the Secretary of Defense, 27 October 2022. https://media.defense.gov/.

Department of the Air Force. "Coaching Resources." https://www.af.mil/.

Department of the Air Force. "Comprehensive Airman Fitness." Accessed 31 January 2024. https://www.resilience.af.mil/.

Department of the Air Force. "Integrated Resilience." Accessed January 2024. www.resilience.af.mil

Department of the Air Force Integrated Resilience. "Want to Help Others Build Their Resilience?" Accessed 11 April 2024. https://www.resilience.af.mil/.

Department of Veterans Affairs. *VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder*. US Government Printing Office, 2023. https://www.healthquality.va.gov/.

Desrosiers, Jacquelyn. "The Stressors of the Military Lifestyle and the Services Available to Help Military Families." Bachelor's thesis, Providence College, 2014. https://digitalcommons.providence.edu/.

Dijksma, Iris, Cees Lucas, and Martijn Stuiver. "Grit Was Not Associated to Dropout in Dutch Marine Recruits." *Military Psychology* 34, no. 5 (2022): 616–21. https://doi.org/10.1080/08995605.2022.2028518.

Dijksma, Iris, Martijn Stuiver, Cees Lucas, and Robert Lindeboom. "Evaluating the Psychometric Properties of the Grit Scale in Marine Recruits Using Rasch Analysis." *BMJ Military Health* 169, no. 5 (October 2023): 425–29. https://doi.org/10.1136/bmjmilitary-2021-001813.

Doorley, James D., Fallon R. Goodman, Kerry C. Kelso, and Todd B. Kashdan. "Psychological Flexibility: What We Know, What We Do Not Know, and What We Think We Know." *Social and Personality Psychology Compass* 14, no. 12 (December 2020): 1–11. https://doi.org/10.1111/spc3.12566.

Doty, Joe, and Jeff Fenlason. "Narcissism and Toxic Leaders." *Military Review*, January–February 2013. https://www.armyupress.army.mil/.

Duchek, Stephanie. "Organizational Resilience: A Capability-Based Conceptualization." *Business Research* 13 (April 2020): 215–46. https://doi.org/10.1007/s40685-019-0085-7.

Duckworth, Angela. *Grit: The Power of Passion and Perseverance*. Scribner, 2016.

Duckworth, Angela L. "Grit: The Power of Passion and Perseverance." TED Talks Education, April 2013. Video, 6 min., 12 sec. https://www.youtube.com/.

Duckworth, Angela, and James J. Gross. "Self-Control and Grit: Related but Separable Determinants of Success." *Current Directions in Psychological Science* 23, no. 5 (October 2014): 319–25. https://doi.org/10.1177/0963721414541462.

Duckworth, Angela L., Christopher Peterson, Michael D. Matthews, and Dennis R. Kelly. "Grit: Perseverance and Passion for Long-Term Goals." *Journal of Personality & Social Psychology* 92, no. 6 (June 2007): 1087–1101. https://doi.org/10.1037/0022-3514.92.6.1087.

Duckworth, Angela L., and Patrick D. Quinn. "Development and Validation of the Short Grit Scale (GRIT–S)." *Journal of Personality Assessment* 91, no. 2 (2009): 166–74. https://doi.org/10.1080/00223890802634290.

Dugan, Riley, Bryan Hochstein, Maria Rouziou, and Benjamin Britton. "Gritting Their Teeth to Close the Sale: The Positive Effect of Salesperson Grit on Job Satisfaction and Performance." *Journal of Personal Selling & Sales Management* 39, no. 1 (September 2018): 81–101. https://doi.org/10.1080/08853134.2018.1489726.

Dweck, Carol, S. *Mindset: The New Psychology of Success*. Ballantine Books, 2007.

Eaker Center. "Leadership Development Course for Squadron Command." Air University, n.d. https://www.airuniversity.af.edu/.

Eggers, Jennifer, and Cynthia Barlow. *Resilience: It's Not About Bouncing Back*. Best Seller Publishing, 2019.

Eisenberg, Daniel, Sarah K. Lipson, Justin Heinze, and Sasha Zhou. "The Healthy Minds Study 2022–2023 Data Report." Healthy Minds Network, 2023. https://healthymindsnetwork.org/.

Elumaro, Adeboye I. "Personality, Grit and Sporting Achievement." *Journal of Sports and Physical Education* 3, no. 1 (2016): 14–17. https://www.iosrjournals.org/iosr-jspe/papers/vol3-issue1/D0311417.pdf.

Emba, Christine. "Why Millennials Are Skipping Church and Not Going Back." *Washington Post*, 27 October 2019. https://www.washingtonpost.com/.

Escolas, Sandra M., Barbara L. Pitts, Martin A. Safer, and Paul T. Bartone. "The Protective Value of Hardiness on Military Posttraumatic Stress Symptoms." *Military Psychology* 25, no. 2 (2013). https://doi.org/10.1037/h0094953.

Espeland, Melanie. "The ROI of Executive Coaching: A Comprehensive Guide." *Forbes*, 24 February 2023. https://www.forbes.com/.

Falletta-Cowden, Neal, Patrick Smith, Steven C. Hayes, Sandra Georgescu, and Seyed Ali Kolahdouzan. "What the Body Reveals about Lay Knowledge of Psychological Flexibility." *Journal of Clinical Medicine* 11, no. 10 (18 May 2022): 2848. https://doi.org/10.3390/jcm11102848.

Fatima, Taseer, Saima Ambreen, Mussarat Khan, and Waseem Fayyaz. "Relationship Between Life Orientation (Optimism/Pessimism) and Mental Health." *Pakistan Armed Forces Medical Journal* 69, no. 5 (October 2019): 992–97.

Fitzgerald, Carlton, and Simona Laurian-Fitzgerald. "Helping Students Enhance Their Grit and Growth Mindsets." *Educația Plus* 14, no. 3 (2016): 52–67.

Flatter. Flatter.com, n.d. https://www.flatterinc.com/.

Frank, Russell. "Covering Captain Cool: The 'Miracle on the Hudson' as a Hero Tale." *Western Folklore* 72, no. 1 (2013): 59–81. https://www.jstor.org/stable/24550907.

Frisch, Michael H., Robert J. Lee, Karen L. Metzger, Jeremy Robinson, and Judy Rosemarin. *Becoming an Exceptional Executive Coach*. American Management Association, 2012.

Fry, Richard. "Young Adult Households Are Earning More Than Most Older Americans Did at the Same Age." Pew Research Center, 11 December 2018. https://www.pewresearch.org/.

Fussell, Chris. *One Mission: How Leaders Build a Team of Teams*. Penguin Books, 2017.

Gentile, Dylan. "919th SOW Adapts to AFSOC's New Warfighting Model." Air Reserve Command, 4 January 2023. https://www.919sow.afrc.af.mil/.

Georgoulas-Sherry, Vasiliki. "Understanding the Distinctions of Positive Constructs: Resilience, Grit, and Hardiness." *Journal of Leadership Studies* 16, no. 2 (2022): 26–32. https://doi.org/10.1002/jls.21818.

Georgoulas-Sherry, Vasiliki, and Hannah G. Hernandez. "The Effects of Grit and Resilience on Moral Competence Following Simulated Combat Exposure." *Military Psychology* 34, no. 2 (2021). https://doi.org/10.1080/08995605.2021.1982631.

Georgoulas-Sherry, Vasiliki, and Dennis Kelly. "Resilience, Grit, and Hardiness: Determining the Relationships Amongst These Constructs Through Structural Equation Modeling Techniques." *Journal of Positive Psychology and Wellbeing* 3, no. 2 (2019): 165–78.

Gilson, Todd A., Melissa A. Dix, and Marc Lochbaum. "'Drive On': The Relationship Between Psychological Variables and Effective Squad Leadership." *Military Psychology* 29, no. 1 (17 October 2016): 58–67. https://doi.org/10.1037/mil0000136.

Goleman, Daniel, Richard Boyatzis, and Annie McKee. *Primal Leadership: Unleashing the Power of Emotional Intelligence*. Harvard Business Review Press, 2013.

Gregory, Sandra A., and Marilyn P Wiles. "Professional Development for All Seasons: Executive Coaching Accelerates Your Leadership." *The Armed Forces Comptroller* 63, no. 1 (2018): 58–61.

Griffith, James, and Bryan Craig. "Birth Era May Factor in Risk of Suicide." *Army Magazine* 66, no. 2 (February 2016). https://www.ausa.org/.

Griffith, James, and Courtney West. "Master Resilience Training and Its Relationship to Individual Well-Being and Stress Buffering Among Army National Guard Soldiers." *Journal of Behavioral Health Services & Research* 40, no. 2 (April 2013): 140–55. https://doi.org/10.1007/s11414-013-9320-8.

Gröschke, Daniela, Elisa Hofmann, Nadine D. Müller, and Judith Wolf. "Individual and Organizational Resilience—Insights from Healthcare Providers in Germany during the COVID-19 Pandemic." *Frontiers in Psychology* 13 (August 2022). https://doi.org/10.3389/fpsyg.2022.965380.

Hallsell, Troy A. "The Integrated Resilience Program at Malmstrom AFB, Montana, 2019-2020." Wild Blue Yonder (blog), 9 April 2021. https://www.airuniversity.af.edu/.

Hamdan, Mohammad, Bassem I. Haddad, Mohammad Ali Alshrouf, et al. "Burnout, Grit and Resilience Among Jordanian Orthopedic Surgeons: A Cross-Sectional Study." *BMC Medical Education* 23 (2023), article 593.

Hamilton, William. "Too Much Grit to Quit? An Examination of Grit in Two Separate Within-Institution Contexts." *Adult Education Quarterly* 72, no. 2 (2022): 179–96.

Hardy, William. "Grit: A Look at Individual and Organizational Passion and Perseverance." Mission Command Center of Excellence, June 2015. https://cgsc.contentdm.oclc.org/.

HBR Emotional Intelligence Series. *Resilience*. Harvard Business Review, 2017.

Health.mil. "Combat and Operational Stress Reactions (COSRs)." Military Health System, 11 July 2023. https://www.health.mil/.

Heinrich, Denitsa R. Mavrova. "Cultivating Grit in Law Students: Grit, Deliberate Practice, and the First-year Law School Curriculum." *Capital University Law Review* 47, no. 2 (2019): 341–78. https://www.capitallawreview.org/.

Helbling, Katie. "BetterUp Inc. Partners with US Air Force for $99M of Leadership Coaching." Clearance Jobs, 28 September 2023. https://news.clearancejobs.com/.

Hernández, Elisa H., Juan Antonio Moreno-Murcia, Luís Cid, Diogo Monteiro, and Filipe Rodrigues. "Passion or Perseverance? The Effect of Perceived Autonomy Support and Grit on Academic Performance in College Students." *International Journal of Environmental Research and Public Health* 17, no. 6 (2020): 1–13. https://doi.org/10.3390/ijerph17062143.

Hernandez, Hanna, and Vasiliki Georgoulas-Sherry. "The Effects of Grit and Resilience on Moral Competence Following Simulated Combat Exposure." *Military Psychology* 34, no. 2 (2021): 167–74. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10013315/.

Hill, Patrick L., Anthony L. Burrow, and Kendall Cotton Bronk. "Persevering with Positivity and Purpose: An Examination of Purpose Commitment and Positive Affect as Predictors of Grit." *Journal of Happiness Studies* 17 (2016): 257–69.

Hinck, John M. "Leadership Coaching as a Transformative Process in the Military." *International Journal of Evidence-Based Coaching and Mentoring* 20, no. 1 (2022): 20–34.

Hinck, John M., Robert S. Hinck, Steven B. Davis, Derrick J. Iwanenko, Bryan K. Wong, and Kathryn R. Cantu. "Understanding 'Leadergogy.' " *Journal of Military Learning*, October 2023. https://www.armyupress.army.mil/.

Hom, Melanie A., Ian H. Stanley, Matthew E. Schneider, and Thomas E. Joiner Jr. "A Systematic Review of Help-Seeking and Mental Health Service Utilization Among Military Service Members." *Clinical Psychology Review* 53 (April 2017). http://dx.doi.org/10.1016/j.cpr.2017.01.008.

"How to Become a Life Coach Without Certification." Life Coach Magazine, 15 July 2023, https://www.lifecoachmagazine.com/.

How, Wei, Darryl Ang, Shefaly Shorey, Violeta Lopez, Han Shi Iocelyn Chew, and Ying Lau. "Generation Z Undergraduate Students' Resilience During the COVID-19 Pandemic: A Qualitative Study." *Current Psychology* 41, no. 11 (November 2022).

Hudson, Melanie D. M., Lucinda S. Spaulding, Angela Y. Ford, and Laura E. Jones. "Growing Grit to Produce Doctoral Persistence." *International Journal of Doctoral Studies* 15 (2020): 705–36. https://ijds.org/.

International Coaching Federation. *Global Coaching Study 2023 Executive Summary*. Accessed 22 August 2024. https://coachingfederation.org/.

International Coaching Federation. "What Is Coaching?" Accessed 9 October 2023. https://coachingfederation.org/.

Ionel, Maria S., Andrei Ion, and Laura Visu-Petra. "Personality, Grit, and Performance in Rock-Climbing: Down to the Nitty-Gritty." *International Journal of Sport and Exercise Psychology* 21, no. 2 (2023): 306–28. https://doi.org/10.1080/1612197X.2022.2044368.

Jachimowicz, Jon M., Andreas Wihler, Erica R. Bailey, and Adam D. Galinsky. "Why Grit Requires Perseverance and Passion to Positively Predict Performance." *Proceedings of the National Academy of Sciences* 115, no. 40 (2018): 9980–85. https://doi.org/10.1073/pnas.1803561115.

Joint Chiefs of Staff. *National Military Strategy of the United States of America*. Joint Chiefs of Staff, 2018. https://www.jcs.mil/.

Joint Publication (JP) 5-0. *Joint Planning*, December 2020. https://irp.fas.org/doddir/dod/jp5_0.pdf

Jones, Landon Y. *Great Expectations*. New York: Coward, McCann & Geoghegan, 1980.

Jordan, Atasha, Kristin Nguyen, Maria Carandang, and Wydad Hikmat. "Novel Approaches to Community-Based Psychoeducation to Improve Mental Health Awareness in Diverse Settings." *World Social Psychiatry* 5 (2023): 36–41.

Kanstrup, Marie, Laura Singh, Katarina E. Goransson, et al. "Reducing Intrusive Memories After Trauma Via a Brief Cognitive Task Intervention in the Hospital Emergency Department." *Translational Psychiatry* 11, no. 30 (2021). https://doi.org/10.1038/s41398-020-01124-6.

Katz, Roberta, Sarah Ogilvie, Jane Shaw, and Linda Woodhead. *Gen Z, Explained: The Art of Living in a Digital Age.* University of Chicago Press, 2021.

Kelly, Dennis R., Michael D. Matthews, and Paul T. Bartone. "Grit and Hardiness as Predictors of Performance Among West Point Cadets." *Military Psychology* 26, no. 4 (2014): 327–42.

Kendall, Frank. Memorandum. Subject: One Team One Fight Update, 5 September 2023.

Khan, Rahman, Jean-Pierre Neveu, and Ghulam Murtaza. "Is Grit Hurting You? The Dark Side of Psychological Resources in Goal Pursuit." *Applied Psychology* 70, no. 3 (2021): 1323–44.

Kirchgasler, Christopher. "True Grit? Making a Scientific Object and Pedagogical Tool." *American Educational Research Journal* 55, no. 4 (2018): 693–720.

Kleiman, Evan M., Leah M. Adams, Todd B. Kashdan, and John H. Riskind. "Gratitude and Grit Indirectly Reduce Risk of Suicidal Ideations by Enhancing Meaning in Life: Evidence for a Mediated Moderation Model." *Journal of Research in Personality* 47, no. 5 (2013): 539–46.

Kombarakan, F. A., J. A. Yang, M. N. Baker, and P. B. Fernandes. "Executive Coaching: It Works!" *Consulting Psychology Journal* 60 no. 1 (2008): 78–90.

Konnikova, Maria. "How People Learn to Become Resilient." *The New Yorker*, 11 February 2016.

Kotter, John P. *Leading Change*. Harvard Business School Press, 1996.

Ledford, Andrew, Celeste R. Luning, Patti Miles, Deirdre Dixon, and Scott Lynch. "Investigating the Measurement of, and Interrelationship Between Resilience, Hardiness, Grit in a Population of

Navy SEAL Candidates." *American Journal of Management* 21, no. 2 (2021): 82–101.

Lee, Joonghak. "The Role of Grit in Organizational Performance During a Pandemic." *Frontiers in Psychology* 13 (2022). https://doi.org/10.3389/fpsyg.2022.929517.

Lee, Thomas H., and Angela L. Duckworth. "Organizational Grit." *Harvard Business Review*, 1 September 2018.

Lewis, Cheyenne. "Tactical Care Training Improves Survivability." Department of Defense, 30 August 2022. https://www.defense.gov/.

Lewis, Michael. "Are American Fan-Based Businesses at Risk for Decreased Revenue?" Emory-Goizueta Business School, 21 January 2022. https://goizueta.emory.edu/.

Li, Lily X., and Kevin C. Chung. "We Need to Talk About Grit." *Plastic and Reconstructive Surgery* 150, no. 5 (2022): 951–54.

Liang, Fu, and Cao Linlin. "Linking Employee Resilience with Organizational Resilience: The Roles of Coping Mechanism and Managerial Resilience." *Psychology Research and Behavior Management* 14 (May 2021): 1063–75. https://doi.org/10.2147/PRBM.S318632.

Lucas, Clifford. "The SOF Truths Provide Stability in Turbulent Times." *Air Commando Journal* 12, no. 3 (January 2024). https://original-ufdc.uflib.ufl.edu/AA00052580/00039.

Luning, Celeste Raver and Andrew Ledford. "The Necessity of Grit and Hardiness in Leading with Character." *Journal of Character and Leadership Development* 7, no. 1 (2020): 100–111. https://jcldusafa.org/.

Luning, Celeste Raver, Prince A. Attoh, Tao Gong, and James T. Fox. "A Culture of Organizational Grit from the Perspective of U.S. Military Officers: A Qualitative Inquiry." *Armed Forces and Society* 48, no. 3 (2022): 542–70. https://doi.org/10.1177/0095327X20985197.

Maddi, Salvatore R. "Relevance of Hardiness Assessment and Training to the Military Context." *Military Psychology* 19, no. 1 (2 April 2007): 61–70. https://doi.org/10.1080/08995600701323301.

Maddi, Salvatore R., Deborah M. Khoshaba, Keith Jensen, Elaine Carter, John L. Lu, and Richard H. Harvey. "Hardiness Training for High-Risk Undergraduates." *NACADA Journal* 22, no. 1 (2002): 45–55. https://doi.org/10.12930/0271-9517-22.1.45.

Maddi, Salvatore R., Michael D. Matthews, Dennis R. Kelly, Brandilynn Villarreal, and Marina White. "The Role of Hardiness and Grit in Predicting Performance and Retention of USMA Cadets."

Military Psychology 24, no. 1 (1 January 2012): 19–28. https://doi.org/10.1080/08995605.2012.639672.

Maddi, Salvatore R., Michael D. Matthews, Dennis R. Kelly, Brandilynn J. Villarreal, Kristin K. Gundersen, and Sarah C. Savino. "The Continuing Role of Hardiness and Grit on Performance and Retention in West Point Cadets." *Military Psychology* 29, no. 5 (2017): 355–58.

Mansoor, Peter R., and Williamson Murray. *The Culture of Military Organizations*. Cambridge University Press, 2019.

Mas'uda, Isnaeni, and Sukma Adi Galuh Amawidyati. "Cultivating Grit in Higher Education: Exploring the Influence of Growth Mindset Among University Students." *Educational Psychology Journal* 12, no. 1 (2023): 32–42.

Maucione, Scott. "The Army IG Says There Are Too Many Whistleblower Reprisal Cases, But That Might Not Be Bad." *Federal News Network*, 15 February 2018.

McGene, Juliana. *Social Fitness and Resilience: A Review of Relevant Constructs, Measures, and Links to Well-Being*. RAND Project Air Force Series on Resiliency. RAND Corporation, 2013. https://www.rand.org/pubs/research_reports/RR108.html.

McLarnon, Matthew, Mitchell Rothstein, and Gillian King. "Resiliency to Adversity in Military Personnel: The Role of Self-Regulation." *Military Psychology* 33, no. 2 (2021): 104–14.

Meadows, Sarah O., Laura L. Miller, and Sean Robson. *Airman and Family Resilience: Lessons from the Scientific Literature*. RAND Corporation, 2015.

Migliore, Lauri, Lisa Braun, and Christopher Stucky et al. "Considerations for Acute and Emergent Deployed Mental Health Patient Management and Theater Transports: A Scoping Review." *Military Medicine* 186, no. 9–10 (2021): e932–e942. https://doi.org/10.1093/milmed/usaa568.

Miller, Claire Cain, and Jonah E. Bromwich. "How Parents Are Robbing Their Children of Adulthood." *New York Times*, 16 March 2019.

Miller, Mark. *Culture Rules*. BenBella Books. 2023.

Mohan, Vidhu, and Jaiprabh Kaur. "Assessing the Relationship Between Grit and Academic Resilience Among Students." *Issues and Ideas in Education* 9, no. 1 (2021): 39–47.

Mohatt, Nathaniel V., Robert Boeckmann, Nicola Winkel, Dennis Mohatt, and Jay Shore. "Military Mental Health First Aid: Development and Preliminary Efficacy of a Community Training for

Improving Knowledge, Attitudes, and Helping Behaviors." *Military Medicine* 182, no. 1/2 (2017): 1576–83.

Morell, Monica, Ji S. Yang, and Jessica R. Gladstone et al. "Grit: The Long and Short of It." *Journal of Educational Psychology* 113, no. 5 (2021): 1038–58.

Moyes, Ellie, George Nutman, and Jessica Hafetz Mirman. "The Efficacy of Targeted Mindfulness-Based Interventions for Improving Mental Health and Cognition Among Youth and Adults with ACE Histories: A Systematic Mixed Studies Review." *Journal of Child and Adolescent Trauma* 15, no. 4 (December 2022): 1165–77. https://doi.org/10.1007/s40653-022-00454-5.

Musso, Mandi, Danielle Tatum, Diana Hamer, Rebecca Hammarlund, Leslie Son, and Pamela McMahon. "The Relationship Between Grit and Resilience in Emergency Medical Service Personnel." *Ochsner Journal* 19, no. 3 (2019): 199–203.

Musumari, Patou M., Arunrat Tangmunkongvorakul, and Kriengkrai Srithanaviboonchai et al. "Grit Is Associated with Lower Level of Depression and Anxiety Among University Students in Chiang Mai, Thailand: A Cross-Sectional Study." *PLOS ONE* 13, no. 12 (December 2018): 1–16. https://doi.org/10.1371/journal.pone.0209121.

National WWII Museum. "Training the American GI," 11 July 2018. https://www.nationalww2museum.org/.

Neumann, R. J., K. F. Ahrens, and B. Kollman et al. "The Impact of Physical Fitness on Resilience to Modern Life Stress and the Mediating Role of General Self-Efficacy." *European Archives of Psychiatry and Clinical Neuroscience* 272, no. 4 (1 June 2022): 679–92, https://doi.org/10.1007/s00406-021-01338-9.

Nieberg, Patty. "Army Wants One-Third of Future Recruits to Be College Grads." Task and Purpose, 3 October 2023. https://taskandpurpose.com/.

O'Donnell, Meaghan L., Winne Lau, and Julia Fredrickson et al. "An Open Label Pilot Study of a Brief Psychosocial Intervention for Disaster and Trauma Survivors." *Frontiers in Psychiatry* 11 (June 2020). https://doi.org/10.3389/fpsyt.2020.00483.

Office of People Analytics. "Population Representation in the Military Services: Fiscal Year 2020 Summary Report." Department of Defense, 2020. https://www.opa.mil/.

152nd Airlift Wing. "The High Rollers' Comprehensive Airman Fitness Program." 152nd Airlift Wing. Accessed 31 January 2024. https://www.152aw.ang.af.mil/.

Özer, Duygu, and Özlem Şahin Altun. "Mental Health Literacy: Strengthening Community Mental Health Through Awareness." *Psikiyatride Güncel Yaklaşımlar* [Current Approaches in Psychiatry] 14, no. 2 (30 June 2022): 284–89. https://doi.org/10.18863/pgy.1016368.

Panetta, Leon E., and Jeremy Bash. "Teamwork Led Us to bin Laden and Can Keep America Safe." *Defense One*, 30 April 2021. https://www.defenseone.com/.

Park, Daeun, Alisa Yu, Rebecca N. Baelen, Eli Tsukayama, and Angela L. Duckworth. "Fostering Grit: Perceived School Goal-Structure Predicts Growth in Grit and Grades." *Contemporary Educational Psychology* 55 (2018): 120–28.

Passmore, Jonathan, and Annette Fillery-Travis. "A Critical Review of Executive Coaching Research: A Decade of Progress and What's to Come," *Coaching: An International Journal of Theory, Research and Practice* 4, no. 2 (2011): 70–88. https://doi.org/10.1080/17521882.2011.596484

Patnaik, Geetika. "Impact of Optimism and Positive Emotions on Mental Health." *Social Science International* 29, no. 1 (2013): 121–27.

Penno, Jamie, Sarah Hetrick, and Grant Christie. "'Goals Give You Hope': An Exploration of Goal Setting in Young People Experiencing Mental Health Challenges." *International Journal of Mental Health Promotion* 24, no. 5 (2022): 771–81. https://doi.org/10.32604/ijmhp.2022.020090.

Perez, Madeline. "Obtaining Academic Success: Nurturing Grit in Students." *Journal of Interpersonal Relations, Intergroup Relations and Identity* 8 (Winter 2015): 56–63.

Petersen, Anne Helen. *Can't Even: How Millennials Became the Burnout Generation*. Dey Street Books, 2020.

Phillips, Mark S. "Revisiting John Boyd and the OODA Loop in Our Time of Transformation." *Defense Acquisition* 50, no. 5 (9 October 2021): 8–11.

Physical Activity Advisory Committee. "2018 Physical Activity Guidelines Advisory Committee Scientific Report." US Department of Health and Human Services, February 2018. https://health.gov/.

Potas, Dace. "Gen Z Doesn't Care About Sports. That's Part of a Bigger Problem." *USA Today*, 11 January 2024. https://www.usatoday.com/.

Priebe, Miranda, Alan J. Vick, Jacob L. Heim, and Meagan L. Smith. *Distributed Operations in a Contested Environment*. RAND Corporation, 2019.

Quinn, Elizabeth. "10 Tips to Speed Recovery After Exercise: A Guide to Recovering Post-Workout." Very Well Fit, 9 May 2023. https://www.verywellfit.com/.

Raabe, Johannes, Rebecca A. Zakrajsek, John G. Orme, Tucker Readdy, and Jared A. Crain. "Perceived Cadre Behavior, Basic Psychological Need Satisfaction, and Motivation of US Army ROTC Cadets: A Self-Determination Theory Perspective." *Military Psychology* 32, no. 5 (2 September 2020): 398–409. https://doi.org/10.1080/08995605.2020.1781028

Reid-Martin, Liz. "GenX, Millennials and GenZ Communicate So Differently." Talent Hub, 20 July 2023. https://www.talenthubresourcing.com/.

Reivich, K., and A. Shatté. *The Resilience Factor: 7 Keys to Finding Your Inner Strength and Overcoming Life's Hurdles*. Three Rivers Press, 2002. https://openlibrary.org/.

Reynolds, Gill. "Exploring the Meaning of Coaching for Newly Appointed Senior Leaders in Their First Twelve to Eighteen Months in Role." *International Journal of Evidence-Based Coaching and Mentoring*, no. S5 (2011): 39–53.

Ris, Ethan W. "Grit: A Short History of a Useful Concept." *Journal of Educational Controversy* 10, no. 1 (2015): 1–18.

Roach, Krystal N. "Leveraging Grit in Military Research: A Comprehensive Review." Research Note 2023-15. US Army Research Institute for the Behavioral and Social Sciences, September 2023. https://apps.dtic.mil/.

Robertson-Kraft, Claire, and Angela L. Duckworth. "True Grit: Trait-Level Perseverance and Passion for Long-term Goals Predicts Effectiveness and Retention Among Novice Teachers." *Teachers College Record* 116, no. 3 (2014): 1–27

Robinson, Stephen. *The Blind Strategist: John Boyd and the American Art of War*. Exisle Publishing, 2021.

Salles, Arghavan, Geoffrey L. Cohen, and Claudia M. Mueller. "The Relationship Between Grit and Resident Well-Being." *American Journal of Surgery* 207, no. 2 (2014): 251–54.

Schaefer, Hillary S., Andrew G. Farina, Dave I. Cotting, Eliot S. Proctor, Cheveso L. Cook, and Richard M. Lerner. "The Benefits and Liabilities of Risk-Taking Propensity and Confidence at the U.S. Military

Academy." *Armed Forces & Society* 48, no. 2 (April 2022): 410–39. https://doi-org.aufric.idm.oclc.org/10.1177/0095327X20973373.

Schaeffer, Katherine. "The Changing Face of America's Veteran Population." Pew Research Center, 8 November 2023. https://www.pewresearch.org/.

Schein, Edgar H., and Peter A. Schein. *Organizational Culture and Leadership*. 5th ed. Wiley, 2016.

Schimschal, Sarah E., Denis Visentin, Rachel Kornhaber, and Michelle Cleary. "Grit: A Concept Analysis." *Issues in Mental Health Nursing* 42, no. 5 (2021): 495–505.

Schmidt, Fabian T., Johanna Fleckenstein, Jan Retelsdorf, Lauren Eskreis-Winkler, and Jens Möller. "Measuring Grit." *European Journal of Psychological Assessment* 35, no. 3 (2017): 436–47.

Secretary of the Air Force Public Affairs. "SecAF Announces Air Task Force Model." AirForce.mil, 18 September 2023. https://www.af.mil/.

Secretary of the Air Force Public Affairs. "USAF Units of Action: Air Task Forces Defined, First Locations Announced." AirForce.mil, 15 May 2024. https://www.af.mil/.

Shah, Riya, and Anuja Deshpande. "Relationship Between Psychological Well-Being, Resilience, Grit, and Optimism Among College Students in Mumbai." *Journal of Psychosocial Research* 17, no. 1 (2022): 43–55.

Sharkey, Christina M., Dana M. Bakula, Kaitlyn L. Gamwell, Alexandria J. Mullins, John M. Chaney, and Larry L. Mullins. "The Role of Grit in College Student Health Care Management Skills and Health-Related Quality of Life." *Journal of Pediatric Psychology* 42, no. 9 (2017): 952–61.

Sherwood, Alison. "What Is Positive Thinking?" MedMD, 16 January 2022. https://www.webmd.com/.

Silvia, Paul J., Kari M. Eddington, Roger E. Beaty, Emily C. Nusbaum, and Thomas R. Kwapil, "Gritty People Try Harder: Grit and Effort-Related Cardiac Autonomic Activity During an Active Coping Challenge." *International Journal of Psychophysiology* 88, no. 2 (2013): 200–205.

Smith, Matthew. "UNL Air Force ROTC Detachment Earns Top Spot as the #1 Small Detachment in the Nation in 2023." University of Nebraska–Lincoln Air Force Reserve Officer Training Corps, 1 March 2024. https://afrotc.unl.edu/.

Soares, J. M., A. Sampaio, L. M. Ferreira, N. C. Santos, F. Marques, and J.A. Palha et al. "Stress-Induced Changes in Human Decision-Making Are Reversible." *Translational Psychiatry* 2, no. 7 (3 July 2012): e131–e131. https://www.nature.com/articles/tp201259.

Southwick, Steven M., George A. Bonanno, Ann S. Masten, Catherine Panter-Brick, and Rachel Yehuda. "Resilience Definitions, Theory, and Challenges: Interdisciplinary Perspectives." *European Journal of Psychotraumatology* 5, no. 1 (2014): 1–14. https://doi.org/10.3402/ejpt.v5.25338.

Special Operations Command. "About PTOFF." Socom.mil, 20 April 2021. https://www.socom.mil/.

SRI International. *Promoting Grit, Tenacity, and Perseverance: Critical Factors for Success in the 21st Century*. SRI International, November 2018. https://www.sri.com/.

Stoffel, Jaclyn M., and Jeff Cain. "Review of Grit and Resilience Literature Within Health Professions Education." *American Journal of Pharmaceutical Education* 82, no. 2 (2018): 124–34.

Stokas, Ariana Gonzalez. "A Genealogy of Grit: Education in the New Gilded Age." *Educational Theory* 65, no. 5 (2015): 513–28. https://doi.org/10.1111/edth.12130.

Substance Abuse and Mental Health Services Administration. "National Mental Health Services Survey," 8 January 2021. https://www.samhsa.gov/.

Tang, Xin, Ming-Te Wang, Jiesi Guo, and Katariina Salmela-Aro. "Building Grit: The Longitudinal Pathways Between Mindset, Commitment, Grit, and Academic Outcomes." *Journal of Youth and Adolescence* 48 (February 2019): 850–63.

Theurer, Bridgette, and Irvine Nugent. *The Goldilocks Principle: Creating a Resilient Organization That's Just Right.* Resilient Leadership Podcast, episode 32, 28 March 2023. https://resilientleadership.captivate.fm/.

"Top 10 Life Coach Organizations." Life Coach Magazine, 11 June 2024. https://www.lifecoachmagazine.com/.

Toteja, Monisha. "Navigating Intergenerational Communication." *Forbes*, 19 October 2022.

Toukolehto, Olli, Wendi Waits, Daniella Preece, and Kathleen Samsey. "Accelerated Resolution Therapy-Based Intervention in the Treatment of Acute Stress Reactions During Deployed Military Operations." *Military Medicine* 185, nos. 3–4 (March–April 2020): 356–62. https://doi.org/10.1093/milmed/usz315.

TRADOC Pamphlet 525-5-500. *Commander's Appreciation and Campaign Design. Ver.* 1.0, 28 January 2008.

Twenge, Jean M. *Generations*. Atria Books, 2023.

Twenge, Jean M. "Have Smartphones Destroyed a Generation?" *The Atlantic*, September 2017. https://www.theatlantic.com/.

US Army Recruiting Battalion Tampa. "Military Recruiting Is a Family Affair," 19 January 2022. https://recruiting.army.mil/.

US Preventative Services Task Force. "Screening for Depression in Adults," 26 January 2016. https://www.uspreventiveservicestaskforce.org/.

Van Breda, Adrian D. "A Critical Review of Resilience Theory and Its Relevance for Social Work." *Social Work* 54, no. 1 (2018): 1–18.

Van der Kolk, Bessel A. *The Body Keeps the Score: Brain, Mind and Body in the Healing of Trauma*. Penguin Books, 2015.

Vera, Dusya, Codou Samba, Dejun Tony Kong, and Tiffany Maldonado. "Resilience as Thriving." *Organizational Dynamics* 50, no. 2 (April 2021): 100784. https://doi.org/10.1016/j.orgdyn.2020.100784.

Wadsworth, Shelley M., Keisha M. Bailey, and Elizabeth C. Coppola. "US Military Children and the Wartime Deployments of Family Members." *Child Development Perspectives* 11, no. 1 (March 2017): 23–28. https://doi.org/10.1111/cdep.12210.

Weathers, Corie. *Military Culture Shift*. Elva Resa Publishing, 2023.

Whitmore, John. *Coaching for Performance: Growing People, Performance and Purpose*. 3rd ed. Nicholas Brealey, 2002.

Wilson, Tyler B., Norian A. Caporale-Berkowitz, Mike C. Parent, and Chris B. Brownson. "Grit Is Associated with Decreased Mental Health Help-Seeking Among Student Veterans." *Journal of American College Health* 71, no. 7 (2023): 2025–30.

Wood, Adam. "Sleep, Nutrition, New Parent Coaching and More." BetterUp, 10 November 2021. https://www.betterup.com/.

Woods, David. *These Elite Troops Spent 15 Years at War. This Program Tries to Prepare Their Minds and Bodies for the Next 15.* HuffPost, 19 April 2016. https://www.huffpost.com/.

World Health Organization. "Mental Health," 17 June 2022. https://www.who.int/.

Zolli, Andrew, and Ann Marie Healy. *Resilience: Why Things Bounce Back*. Simon and Schuster, 2012.

Zueger, Regula, Madlaina Niederhauser, Chantal Utzinger, Hubert Annen, and Ulrike Ehlert. "Effects of Resilience Training on Mental, Emotional, and Physical Stress Outcomes in Military Of-

ficer Cadets." *Military Psychology* 35, no. 6 (2 November 2023): 566–76. https://doi.org/10.1080/08995605.2022.2139948.

WARRIOR HEART

The Foundation of Combat Readiness

Grit. Hardiness. Generational Differences. Combat trauma. Coaching. Teamwork and belonging. The pillars of Comprehensive Airman Fitness. How do these affect resilience, readiness, leadership, and performance—both personal and organizational?

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