NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

MARINE CORPS RESILIENCE

by

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March 2020

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REPORT DOCUMENTATION PAGE			*Form Approved OMB No. 0704-0188*

1. AGENCY USE ONLY ***(Leave blank)***	**2. REPORT DATE** March 2020	**3. REPORT TYPE AND DATES COVERED** Master's thesis

4. TITLE AND SUBTITLE MARINE CORPS RESILIENCE	**5. FUNDING NUMBERS**
6. AUTHOR(S) Roger A. Johnson	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000	**8. PERFORMING ORGANIZATION REPORT NUMBER**
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A	**10. SPONSORING / MONITORING AGENCY REPORT NUMBER**

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.	**12b. DISTRIBUTION CODE** A

13. ABSTRACT (maximum 200 words)

The Marine Corps is world-renowned for being a unique and resilient culture with an illustrious history. The term "resilience" is riddled throughout policy-shaping documents where expectations are set for Marines to enhance it, yet these documents lack guidance in how to do so. This study aims to isolate an amenable cultural definition of resilience and test the Marine Corps Martial Arts Program's (MCMAP) ability to enhance it. A survey conducted by the author received responses from 192 Marines in three groups: Control, Martial Arts Instructor Trainers (MAIT), and MAIT students. Eight additional Marines were interviewed. Quantitative survey data revealed the average respondent's resiliency levels via the Brief Resiliency Scale (BRS) and Psychological Capital resiliency scale, which revealed correlation between resiliency levels and the MCMAP. Research methods included difference mean tests, contingency tables, and regression analysis to identify determinants of higher levels of resiliency. The findings suggest Marines perceive resilience as an ability vice a process and have higher BRS averages of resiliency relative to other cultures researched. This research did not determine that the MCMAP causes an increase in resiliency; however, it concluded that the MCMAP attracts resilient Marines and their influence, via their MAIT certification, may positively impact the Marine Corps' martial culture. To expand upon this thesis, further longitudinal research is recommended.

14. SUBJECT TERMS resilience, Brief Resilience Scale, psychological capital, Marine Corps, Marine Corps Martial Arts Program, Martial Arts Instructor Trainer, survey, contingency table, culture	**15. NUMBER OF PAGES** 145
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	**18. SECURITY CLASSIFICATION OF THIS PAGE**	**19. SECURITY CLASSIFICATION OF ABSTRACT**	**20. LIMITATION OF ABSTRACT**
Unclassified	Unclassified	Unclassified	UU

NSN 7540-01-280-5500 Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. 239-18

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MARINE CORPS RESILIENCE

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requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
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LIST OF ACRONYMS AND ABBREVIATIONS

ALMAR	All Marine Corps Activities
BRS	Brief Resilience Scale
CMC	Commandant of the Marine Corps
COSC	Combat and Operational Stress Control
CPC-12	Compound Psychological Scale-12
CPG	Commandant's Planning Guidance
CSF	Comprehensive Soldier Fitness
FMF	Fleet Marine Force
FMOS	Free Military Occupational Specialty
L.I.N.E.	Linear Infighting Neural Override Engagement
MAI	Martial Arts Instructor
MAIT	Marital Arts Instructor Trainer
MARADMIN	Marine Administrative Message
MCCC	Marine Corps Close Combat
MCMAP	Marine Corps Martial Arts Program
MCOC	Marine Corps Operating Concept
MCTP	Marine Corps Tactical Publication
MOS	Military Occupational Specialty
NDS	National Defense Strategy
NMS	National Military Strategy
NSS	National Security Strategy
OSCAR	Operational Stress Control and Readiness
PCQ	Psychological Capital Questionnaire
PME	Professional Military Education
RAND	Research and Development
UMAPIT	Unit Marine Awareness and Prevention Integration Training
UPFRP	Unit, Personal and Family Readiness Program

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ACKNOWLEDGMENTS

This thesis is dedicated to all Marines, past and present, who have carried the Marine Corps' resilient legacy on their shoulders by embodying the Corps' core values. Thank you for your service and setting the example for the next generation of Marines to emulate. To my thesis advisors and support team, thank you for your mentorship, patience, and guidance. To the Martial Arts Center of Excellence stakeholders and leadership, thank you for your support throughout this research and endless effort toward reinforcing the Marine warrior spirit in every Marine throughout the Corps. To my family, thank you for your unconditional love and support. Semper Fidelis.

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I. INTRODUCTION

> We need Marines with mental acuity and resilience no less than physical fitness if we are to remain a professional, disciplined and moral force that can be effective in chaotic environments and complex terrain.
>
> —General Robert B. Neller, USMC

A. WHAT IS RESILIENCE?

Adversity presents a keen opportunity for Marines to decide how to react through a given adverse situation. This action, or reaction, through adversity is often referred to as resilience. In a broad sense, resilience is a purpose-driven concept surrounding a person's reaction(s) during and beyond hardship or adversity. However, there is much debate regarding an amenable definition of resilience, whether it means effectively managing the body's physiological response to adversity or a person's acts through hard times. Nonetheless, adversity is a common denominator in the military, and everyone negotiates hardship differently, especially in the Marine Corps. Recently, there has been an uptick in the use of the word resilience in the military through policy-shaping documents and training and education programs. The current definition of resilience in the Marine Corps policy is adopted from the U.S. Navy and is delivered as a noun which presents challenges to Marines whose culture requires actionable traits. For example, the concept of resilience has been associated with many facets of the military and academic research such as infrastructure, joint forces, organizations, individuals, force structure, and military families. Building and maintaining a resilient infrastructure is not similar to building resilient servicemembers. The fact that policymakers use this word as a force-strengthening concept in policies such as the Marine Corps Operating Concept that highlights its importance, but concurrently leaves the intent of the message diluted and unrelatable. If the intent of Marine Corps policy is to bring awareness to the concept of resilience whilst enhancing servicemembers' resiliency, then the Marine Corps is missing a tangible method of execution. Furthermore, the way in which political and military leaders deliver the word

in policies like the *National Security Strategy* (NSS), the *National Military Strategy* (NMS), the *National Defense Strategy* (NDS), the *Marine Corps Operating Concept* (MCOC), and the *38th Commandant's Planning Guidance* (CPG), suggests that resilience is a developable skill vice a process. This shifts the focus of resilience from reactive to proactive, further suggesting that Marines can train to become resilient or increase their current level of resilience. However, current doctrine appoints resilience as a process in current training material, and this takes the focus away from the individual servicemember and places it on a scheduled system of actions. This contradicts the tone of policy-shaper's intent when encouraging the Marine Corps to enhance servicemember's resiliency, which further limits the potential of building a resilient force one servicemember at a time.

B. PROBLEM FRAMING

Currently, the Marine Corps does not have a cultural definition of resilience, yet the concept of resilience is deeply woven into the culture of the Corps. Marines are molded tough realistic training to face adversity with perseverance and selfless actions in preparation for combat. As a result, the culture of the Marine Corps strives to continuously breed resilient men and women from their inception into the organization as outlined by the Marine Corps Tactical Publication 3-30E (United States Marine Corps [USMC], 2016b, p. 1-3). Furthermore, many recent policy-shaping documents that drive the Marine Corps deliver messages with convoluted meanings regarding resilience. The ambiguous use of the word begs the question: what does resilience mean with respect to the Marine Corps and how does the Corps evaluate it? Furthermore, does the Marine Corps have current programs that offer ways to enhance individual resilience? This thesis aims to address these questions throughout.

A common understanding of resilience is that it means one can recover or bounce back from a difficult situation. This presents challenges to how Marines can interpret bouncing back. Are Marines expected to return to a pre-adverse state given this common understanding? Obviously, it is impossible for anyone to forego the experience gained from negotiating adversity; therefore, this ideology is not realistic and does not fit the culture of the Marine Corps. For example, if a Marine experiences hardships on the battlefield, that

Marine will acquire knowledge, experience, and perspective on the given situation(s). No one resumes life as if an adverse situation never occurred. Likewise, most people associate resilience in the Marine Corps as the notion of a Marine recovering from post-traumatic stress due to combat experience(s). This connotation of resilience does not align with how today's Marine Corps policymakers deliver their guidance and directive in policy. The messages found in Marine Corps doctrines like the Marine Corps Operating Concept encourage Marines to find ways to become more resilient to prepare for future adversities.

C. WHY DOES IT MATTER?

A recent study by Brad Smith et al. (2018) found that resilient people are likely to have "lower levels of perceived stress, higher job satisfaction, and fewer stress-related symptoms" (p. 1). The legacy of the Marine Corps is defined by the many Marines who have endured adversity on and off the battlefield and accomplished more with less. The actions and reactions of Marines in and out of combat have justified the organization's existence for almost two and a half centuries. Therefore, the focus of resilience in policy should recognize and isolate the Corps' most valuable asset: its Marines. In relation to the study conducted by researchers Smith et al., higher job satisfaction could reduce current attrition rates, thus relieving the defense budget from an unpredictable financial burden. General Berger, 38th Commandant of the Marine Corps, highlights in his planning guidance that the Marine Corps spent approximately $1 billion on attrition alone over the past decade (from 2019) and stresses the importance of better management of this controllable risk (USMC, 2019a). Smith et al.'s second point suggests that resilient Marines may enhance organizational networking, increase unit cohesion, and inflate esprit de corps. Smith et al.'s makes a final point: Fewer stress-related symptoms would help Marines manage and mitigate many stressors associated with the military lifestyle. These three points would greatly benefit any unit in the Marines Corps. Simply recognizing that the military is a stressful culture and addressing that fact by stating *Marines must be more resilient* is not enough to ignite action(s). Current methods of training resiliency are inadequate and lack a comprehensible way to measure increases in individual resiliency.

Therefore, Marines deserve better training on properly taking action(s) through hardship and stress, since they are expected to defeat any adversities found on and off the battlefield.

Further research conducted by Smith et al. suggests that "higher levels of resilience correspond with higher levels of productivity, lower absenteeism, and lower likelihood for employees to quit" (2018, p. 1). Understanding how to enhance servicemember resiliency, and putting those methods into action, will bolster the positive impacts returned to the Marine Corps beyond simply being associated with it. The Marine Corps' valuable reputation for *accomplishing the mission* comes at the high cost of enduring more adversity relative to the average American. Thus, increasing *Marine capital* and productivity through cost-effective training and education will offer the most value to the Marine Corps. Combining enhanced productivity with lower absentee rates will have compounding positive effects on a unit's combat readiness. Furthermore, increasing reenlistment rates and continued commissioned service for officers will enable the Corps to benefit from a more experienced force. This offers a valuable tool for dealing with the unknown effects of the blended retirement system's removal of the 20-year service constraint for acquiring a retirement pension. Therefore, for the Marine Corps to become aware of what individual resilience is and how servicemembers can better relate to its concept may offer the organization valuable and much needed positive residual effects.

The current Marine Corps new-join process does not identify individuals with prior or existing trauma (not relative to war). As a result, military leaders do not know if individuals reporting to their unit are currently coping with a past or present traumatic event(s). Adopting an organizational tool that provides insight on a new-join's level of resiliency would provide leaders with a better understanding of their new-join Marines when making manpower management decisions. Such an organizational tool may also simultaneously serve as a method of evaluating the combat readiness of a unit prior to a deployment. This presents additional opportunities for Marine Corps leaders to understand their unit and task individuals accordingly, given the results of an institutionalized tool. Ultimately, a decentralized resiliency tool would allow leaders to analyze individual resiliency levels and promote better talent management and job-matching decisions throughout the Marine Corps.

D. PURPOSE OF THIS RESEARCH

This thesis aims to gain a cultural perspective on individual resilience in the Marines Corps by surveying and interviewing active-duty and retired Marines. This thesis will solicit both qualitative and quantitative data from the research participants to help address the research questions. The premise of the surveys is to capture each respondent's definition of Marine Corps resilience and assess their current level of resiliency given two resiliency scales. A qualitative analysis of the survey responses will provide recommendations to all stakeholders for potential cultural definitions of Marine Corps resilience. The resiliency survey results will provide insight on how resilient Marines are relative to previously surveyed cultures. Interviews will be conducted in addition to the surveys to provide further insight on the intangible measures of individual resilience in the Marine Corps. The outcome of this research will provide recommendations for a cultural definition of Marine Corps resilience, assess if the resilience survey scales used are amenable to the culture of the Marine Corps, and provide evidence that the MCMAP does enhance individual resilience given the resilience survey scales used during the research. If this research proves that the MCMAP is a valid method of enhancing individual resilience, then the Marine Corps could consider culturally reenergizing and incentivizing the program to gain a cost-effective method towards enhancing individual resilience.

E. USMC PROGRAMS CONSIDERED FOR THIS THESIS

Few researchers can agree on what human resilience means due to its complexity and difficulty in measuring it. More importantly, there is a lack of tangible and relatable evidence on how to increase something that encompasses various definitions. A common trend found throughout many researchers' findings on the concept of resilience is that human, or individual, resilience has the potential of being enhanced through positive social interactions, physical training, learning, showing gratitude, culturally embodying core values, or selflessly leading. Authors Sippel et al. (2015) stated that social systems provide positive support that can enhance resilience. These potential resilience-enhancing methods were considered when selecting a potential Marine Corps program(s) for this thesis. Currently, the Marine Corps has multiple programs that may promote individual resilience

and relate to the views from Sippel et al. Some of these programs are: Operational Stress Control and Readiness (OSCAR), Spiritual Fitness, Professional Military Education (PME), the Commandant's Professional Reading List, and the Marine Corps Martial Arts Program (MCMAP). Of note, this is not an all-inclusive list.

1. The OSCAR Program

OSCAR is an organizational program that requires unit commanders to establish a team of Marines to interdict and facilitate help for unit members who portray high-stress related indicators. Marine Administration Message (MARADMIN) 597/11 outlines the purpose of the OSCAR program, which is to help commanders maintain "their warfighting capabilities by identifying, managing, and preventing combat and operational stress issues as early as possible" (2011, para. 2). This program also requires Marines to attend annual training that provides information concerning organizational resources for Marines in need. However, the program lacks a bottom-up approach by relying on the OSCAR team, and individual Marines, to identify other Marines who display signs of stress and may require intervention. This places the majority of the onus on the OSCAR team, which may deter individual Marines from doing their part by helping other Marines because they thoughtlessly rely on the effectiveness of the OSCAR team. The Marine Corps policy that drives the OSCAR efforts is the Combat and Operational Stress Control (COSC) Program via the 2013 Marine Corps Order (MCO) 5351.1. This policy is complemented by the 2016 version of an organizational leadership publication, Marine Corps Tactical Publication (MCTP) 3-30E. Both the MCO and MCTP offer vast insight on the concept of resilience and recognize a definition of resilience that is adopted from the U.S. Navy. However, with aging policy and unused leadership publications, the COSC program cannot reach its full potential without an effective method of promoting resilience as eluded to throughout both doctrines.

2. The Spiritual Fitness Program

In complementing the COSC program, the Spiritual Fitness Program was initiated in 2016 by General Neller, 37th Commandant of the Marine Corps, to encourage Marines

to recognize their need for spiritual, mental, and social balance. All Marine Corps Activities (ALMAR) message 033/16 states, "A large part of [being able to answer our nation's call on a moment's notice] is our capacity for resilience" (USMC, 2016c, para. 2). General Neller recognized the importance of individual resilience and suggested that to enhance resilience Marines should focus on increasing their understanding of it. Later in the ALMAR, General Neller appointed every Marine to take accountability of their actions and ensure that they are maximizing their strength and resilience (USMC, para. 3).

3. PME

Professional Military Education is another Marine Corps program that may promote individual resiliency, but with some considerable limitations. PME provides students with some information regarding organizational programs that can help themselves or others endure and recover from adversity. The school also provides historical examples of Marines who overcame adversity during tactical decision games and warrior case studies. However, the length that students attend PME is limited to a specific amount of time. Moreover, the evolution of online PME dilutes the student's ability to gain insight from shared Marine Corps experiences from classmates, similar to the Marines who physically attend the resident PME courses. This thesis also considered that PME is a prerequisite for Marines who desire to be considered for promotion. As a result, some Marines self-select to attend PME only to be promoted, not to benefit from the robust military education taught throughout the course. Another limitation to PME is the student's peer group. The peer group for any PME is limited to one rank with the exception of a few higher-ranking advisors.

4. The Commandant's Professional Reading List

The commandant's professional reading list is comprised of preselected books that strive to enhance the intellectual capital of Marines. The books cover various areas of interest like the military, politics, sports, and economics, and even includes fictional stories. The selected books are recommended congruent with a Marine's rank; the program encourages readers to discuss lessons learned from the book in a group setting. Sharing

personal perspectives of the story enables Marines to gain multifaceted insight(s) on the successes and failures of the book. This also implicitly prepares readers to endure like adversity in future conflicts by shaping the reader's perception on the given situation. However, the reading list is merely a recommendation and must be initiated by the individual Marine. Furthermore, the reader's command leadership must select a method of ensuring that the reader comprehended the intended lessons associated with the book(s). The lack of an organizational method of checking readers' comprehension limits the potential benefits gained from the reading program.

5. The MCMAP

The MCMAP is a mixed martial arts warrior-based system that integrates multiple civilian martial arts techniques with military forms and weaponry. The intent of the program focuses on enhancing a Marine's level of resiliency (USMC, 2019b). There are three disciplines of the MCMAP - physical, mental and character. Each discipline is unique and considered equally important to all practitioners that strive to become a *Marine Warrior*. The MCMAP's training methodology encourages all students to synergize the disciplines while building their individual level of resilience. The physical discipline focuses on the tangible aspects of the program such as physical training, swimming skills, topography skills, martial arts techniques, and force fitness (USMC, 2019b). These developable skills are easily assessed and measured by instructors of the program. The mental discipline focuses on the student's professional military education, Marine Corps common skills, battle skills test, military literature, military occupational specialty proficiency, and civilian education (USMC, 2019b). This discipline is harder to assess during the short amount of time required to advance in belt levels but is valued equally. The final discipline aims to build a Marine's character through core values training, warrior case studies, leadership training, and personal affairs (USMC, 2019b). This discipline can only be evaluated through the decisions and actions, both at work and on liberty, that the Marine makes over the span of their career. The Marine martial arts instructors are only able to evaluate a student's character during training periods, which is not enough time to make a definitive judgement on their character.

6. Selecting the Right Program

There continues to be a lack of tangible evidence that any of these Marine Corps programs promote human resilience. Specifically, without a cultural way to define, relate, or interpret individual Marine resilience the Marine Corps will fail to justify any organizational program enhances Marine resilience. Until 2019, none of these programs strictly focused on promoting individual resiliency while simultaneously offering a method of enhancing it. The 2019 MCMAP policy revision offers a reenergized approach to the notion of resilience by bringing awareness to its concept and becoming responsible for promoting individual Marine resilience. Moreover, the MCMAP may pose as a potential cost-effective program for identifying a cultural definition, method of assessment, and enhances individual resilience because every Marine must be exposed to the program to become a Marine. Ultimately, the MCMAP was selected for this research due to its strong relationship in supporting resiliency literature and its unwavering connections to the values of the Marine Corps. Of note, this thesis marks the first time that the MCMAP has been analyzed with regards to the concept of resilience. As a result, this program helped address the following research questions:

F. RESEARCH QUESTIONS

This thesis aims to answer the following questions:

- How does the Marine Corps define, assess, and enhance individual resilience?

- Does the MCMAP enhance individual resilience?

G. METHODOLOGY

To address the research questions, the author gathered and analyzed qualitative and quantitative data from surveys and interviews. The surveys were disseminated to three sub-populations within the Marine Corps: a Control group, former MAIT graduates, and Martial Arts Instructor Trainer (MAIT) Course 3-19 students. The surveys entailed two

different resiliency scales, open-ended questions and various demographic data. The Control group consisted of a randomly selected sub-population of the Marine Corps based on the current rank-ratio of the entire Marine Corps. The MAIT group consisted of a randomly selected sub-population of the total population of Marines who have earned the MAIT certification. The MAIT Course 3-19 students were Marines who attended the Martial Arts Instructor Trainer Course at the Martial Arts Center of Excellence in Quantico, Virginia. These students were given a 45-question pre- and post-course surveys to measure the immediate effects of the MAIT course. Both the Control and MAIT groups were given a shorter 19-question survey to encourage higher participation in the research. All surveys were distributed via electronic mail and were taken on a voluntary basis. In addition to the surveys, interviews were conducted to gain a deeper understanding of the intertwining relationship among the Marine Corps, resilience, and the MCMAP. The primary focus was to qualitatively analyze the respondents' definition of "individual resilience" to better understand the culture's perception of the concept. The secondary focus of the methodology examined the quantitative results from both resiliency scales to offer comparative analysis between average resiliency scores returned from the entire Marine survey population and previously surveyed cultures. Additional comparative analysis among the Marine groups was done to gain insight on the MCMAP's influence on individual resilience. Furthermore, the demographic data offered relative analysis within the survey populations to draw a deeper understanding of any data that is associated with higher levels of resiliency. Lastly, the surveys and interviews asked open-ended questions regarding the MCMAP; the responses were analyzed to identify evidence that Marines believe the MCMAP can enhance individual resilience.

H. SCOPE AND LIMITATIONS

The three main themes of this research are: what human resilience means to a United States Marine, how can it be assessed, and can the MCMAP enhance resilience. Specifically, the foundation of this study focused on obtaining a Marine Corps definition of individual resilience from active-duty and retired Marines. For the purpose of this research, individual resilience is associated with the following human domains:

psychological, physiological, moral, spiritual, and physical. Of note, this study does not address resilience as it pertains to infrastructure, organization, joint operations, or force structure. However, the research only captured responses from individuals who provided feedback, and some surveys were returned incomplete. However, not all MAIT students participated in the pre-survey and even fewer participated in the post-survey. Of note, the MCMAP was selected for this thesis prior to the 2019 MCMAP policy revision. The initial secondary research question of this thesis involved exploring the idea of whether or not the MCMAP enhances individual resilience. Due to the recent policy revision, the objective of this thesis transformed into proving that the MCMAP does enhance individual Marine resiliency as stated in the revised policy. This policy revision also provides an opportunity to address the hypothesis that the MCMAP does enhance individual resilience.

I. THESIS CHAPTERS

This thesis has six chapters. Chapter I is the introduction to this thesis and outlines the importance of the topic. Chapter II explores the history and evolution of the concept of resilience and highlights resilient legacy of the Marine Corps. Chapter III is a thorough review of academic and military literature surrounding the concept of resilience. Chapter IV outlines the data sources, models and variables used throughout the analysis. Chapter V outlines the findings and analysis of the data. Lastly, Chapter VI provides conclusions and offers recommendations for all stakeholders concerned with Marine Corps resilience.

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II. BACKGROUND

> Leaders must build resilience in all aspects of their Marines' and Sailors' lives.
>
> —MCTP 3-30E Combat and Operational Stress Control

A. FOUNDATION

Resilience is a complex and relative concept. It can be perceived in many ways depending on the environment and desired outcome. Therefore, it is imperative to understand how resilience was created and recognized throughout history before assumptions can be made the subject of enhancing it.

1. Resilience: In What Context?

The definition of resilience has evolved many times throughout history. The authors of the *Macmillan Dictionary* reported the word was first used in the early 1600s and was "derived from the present participle of Latin 'resilire,' which means 'to recoil or rebound'" (2017, para. 1). A modern search for the term via *Webster's Dictionary* returns the primary definition associated to the field of physics and a secondary definition relating to human recovery: "an ability to recover from or adjust easily to misfortune or change" (n.d.b., para. 2). Neither the Latin foundation nor the modern-secondary definition of resilience are applicable to the way policymakers use the word throughout military doctrines. For example, the word "resilience" appears 68 times in the 2017 NSS and 12 times in the 2018 NDS, with conflicting uses. The NSS calls for fostering resilient Americans and communities while the NDS demands a resilient joint force and infrastructure (2018). Both doctrines inform organizational leaders on the current and future posture of the nation and provide guidance in fulfilling their role. However, the importance of *being* resilient loses its luster when the concept is applicable to every human trait and military domain.

2. Marine Corps Policy: Systems or People?

General Berger was appointed the 38th Commandant of the Marine Corps (CMC) on July 11, 2019, and in response to the NSS and NDS he published his CPG. This force-shaping document drives the culture of the Marine Corps by outlining his priorities for the future of the Corps. Specifically, the CPG mentions the term resilience a minimum of nine times relating to cyber systems and force structure. Conversely, the MCOC, published in 2016 by the 37th CMC General Neller, mentions resilience a minimum of twelve times in its strong focus on military personnel. Neller emphasized that, "we need Marines with mental acuity and resilience no less than physical fitness if we are to remain a professional, disciplined and moral force that can be effective in chaotic environments and complex terrain" (USMC, 2016a, p. 25). These conflicting examples cause further confusion towards meeting an expectation of building resilience within an organization when the term seems to be applicable to multiple domains therein. Furthermore, the concept of a system's resilience is defined by authors Chittister et al. (2011) as "an ability of the system to withstand a major disruption within acceptable degradation parameters and to recover within an acceptable time" (para. 1). The present CMC's focus on the cyber domain mentioned throughout his CPG highlights the future of the Marine Corps; however, systems, infrastructure, and force design are all filled with communities of individual Marines (USMC, 2019a). Therefore, the Marine Corps must acknowledge resilience in these individual Marines equal, if not more, to the systems they are responsible in able for them to remain effective in chaotic and complex areas of operation.

B. THE MARINE CORPS' RESILIENT LEGACY

The history of the Marine Corps is filled with stories of Marines overcoming adversity through vigorous acts of honor, courage, and commitment. In fact, one can argue that a main reason the Marine Corps exists today is due to the Marines' proven ability throughout history to adapt and conquer adversity. Some of the most recent historical examples of overcoming the worst forms of adversity are Dakota Meyer, Carlos Hathcock, and Jason Dunham. These men will forever be recognized by current and future Marines as the epitome of resilient Marines.

1. Dakota Meyer

Sergeant Dakota Meyer is a Medal of Honor recipient for his actions during the battle of Ganjgal, Kunar Province, Afghanistan, in 2009. He co-authored the book *Into the Fire*, which provided a detailed depiction of the battle through the eyes of Corporal (at the time) Dakota Meyer. Meyer was assigned to a coalition force responsible for training the Afghan military in hopes of returning military control to the province government. During a high-risk patrol, Meyer was ordered to remain behind at a rally point with the vehicles while the patrol element continued on foot toward the objective: Ganjgal village. The village was surrounded by high terrain and provided ample cover and concealment for a possible ambush. As the patrol element neared the village, the Taliban unleased a feverish attack on U.S. and Afghan forces. Meyer recognized circumstances had changed, circumstances that required his action to help the pinned-down friendly forces. He drove his truck into the engagement area several times to employ multiple weapon systems, execute hand-to-hand combat, and successfully evacuate numerous friendly soldiers. The importance of this story emphasizes Meyer's ability to quickly adapt to and overcome adversity by responding with purpose. In the heat of battle, he was able to efficiently manage his thought process, transform his intent into action, and push through an adversity that presented multiple challenges. Interestingly, recognizing resilience as "bouncing back from adversity" would place Meyer on an adversity-ridden pendulum; one form of adversity would strike, causing Meyer to fight to find balance and regain situational perspective; a different form of adversity would follow, jarring Meyer back again and again. This seemed like an endless cycle throughout this battle alone, which continuously tested his capacity of resilience. For example, Meyer faced a new type of adversity every time he entered battle. Furthermore, in his book Meyer makes it a point to outline the everlasting struggle caused by the adversity associated with the aftermath of that battle. He claims he continues to face an internal battle that has lasted far beyond the battlefield in Ganjgal village, and this calls for understanding ways for Marines to lead a resilient life (Meyer & West, 2012). Resilience can be an action of overcoming a shock and awe in a single point in time, or it can serve as the conduit to continuously drive through hardship. Meyer's experiences highlight that the act of "bouncing back" is not constrained by time,

and it is impossible for humans to return to a pre-adverse state. Therefore, Meyer forced himself to grow through these hardships and adopt a new perspective along the way in order to survive. Ultimately, this story reveals that Marines require resilience both on and off the battlefield. Resilience is not unique to the Marine Corps; however, the culture of the Corps demands a deeper understanding and relationship with resilience because Marines will always be placed at the forefront of combat.

2. Carlos Hathcock

Gunnery Sergeant Carlos Hathcock was a Silver Star recipient for his actions in 1969 during the Vietnam War. He is recognized as the organizational icon who founded the Marine Corps scout - sniper program. He became renowned during his first tour in Vietnam while conducting effective sniper operations; his actions instilled fear throughout the Vietcong. Specific actions taken during his second tour in Vietnam both earned him the Silver Star and ended his deployment. During a routine convoy an improvised explosive device detonated under the vehicle Hathcock was riding in. The vehicle was engulfed in flames and Hathcock was the first passenger to gain consciousness. He immediately got the other seven passengers out of the bed of the burning vehicle without regard for his own safety. As a result, Hathcock sustained multiple burns to his body, some of which were third-degree. That adverse moment forced Hathcock to take immediate action to save the lives of others. Hathcock displayed the courageous ability to push through fear and physical pain. Like Meyer, he had purpose and understood the costs that accompanied what needed to be done. His perspective changed in the blink of an eye, a perspective which drove him into action. Unlike Meyer, Hathcock was physically limited for the remainder of his Marine Corps career and would later be medically discharged. However, Charles Henderson, author of *Marine Sniper*, wrote that Hathcock also faced an everlasting road to recovery stemming from that moment of devastating adversity in Vietnam (2001).

3. Jason Dunham

Corporal Jason Dunham was posthumously awarded the Medal of Honor for his actions in 2004 during the Iraq War. In the Al Anbar Province near the Syrian border,

Corporal Dunham was serving as a squad leader for his unit. His squad was conducting vehicle searches at a vehicle control checkpoint, searching for potential threats resulting from a recent incident. Dunham and a couple of Marines stopped a vehicle containing weapons. Upon the initial search of the vehicle the driver attacked Dunham. Dunham immediately responded with hand-to-hand combat, and at one point recognized that the driver dropped an armed grenade. Without hesitation Dunham leaped on the grenade to shield his Marines from the blast and received mortal wounds. Like Meyer and Hathcock, Dunham faced a situation that called for immediate action. His training and perspective emphasized his purpose to selflessly care for his team. Jason Dunham is a perfect model of a Marine who understood and accepted the reality of his circumstances and allowed his purpose to drive his resilient actions through the face of adversity.

4. Clear and Concise Communication

These stories justify why the Marine Corps has a unique relationship with resilience, and in turn why the organization deserves its own definition of the concept. A Marine Corps definition should not contradict the common notion of resilience but offer a commonality for Marines to relate to and embody. For example, the word "defeat" is easily understood in society; a common definition provided by *Merriam-Webster* is "to win victory over" (n.d.a., para. 1). Having a sound relationship with defeating the nation's enemies, the Marines have adopted their own definition of "defeat" outlined in the Marine Corps Reference Publication 1-10.2: Marine Corps Supplement to the DoD Dictionary of Military and Associated Terms as "to disrupt or nullify the enemy commander's plan and overcome the will to fight, thus making the enemy commander unwilling or unable to pursue the adopted course of action and yield to the friendly commander's will" (2018, Section II-21). Adopting this word into the Corps' verbiage now carries a power unknown to those who do not serve within the organization's ranks. The Marines' warrior spirit becomes elated when ordered to disrupt the enemy's will to fight. In 2004 Major General (at the time) James Mattis issued his intent to the 1st Marine Division before returning to Iraq to later embark on the initial battle of Fallujah. In part his message read, "we will defeat noncompliant elements through interdiction, elimination of sanctuary, and building

trust with Iraqis to gain actionable intelligence" (Mattis & West, 2019, p. 121). This powerful intent denotes the clause *we will defeat* and orders the Marines to disrupt the enemy's will to fight without option, while simultaneously making an implicit promise to the American people that the Marines will prevail. Mattis recognized the importance of communication and trust as powerful determinant of resilient actions; subsequently he sent a letter to the families of those deploying that in part read, "together, with open communication and trust, we will remain the team that so recently succeeded and proved its resilience during deployment to Afghanistan and Iraq" (Mattis & West, 2019, p. 262). Clear and concise communication regarding orders and definitions is paramount to the success of the Marine Corps. General Neller addressed the cultural connection between resilience and a commander's intent in the MCOC: "Our resilience will come from routine practice … by leaders who work from commander's intent" (USMC, 2016a, p. 17). Even though these words have been imprinted throughout the Marine Corps since 2016, resilience remains a subconscious thought prior to or during battle. Interestingly, if Marines can grasp how to influence or manipulate resilience, then they can then also focus on methods of disrupting their enemy's resilience during battle. Therefore, adopting a cultural definition of Marine Corps resilience will further empower the warfighter's mindset across the Corps. The bottom line is, Marines are resilient; the Corps simply needs a clear and concise cultural definition that epitomizes its unique and irreplaceable culture.

Meyer, Hathcock, and Dunham endured situations unlike anything most civilians will ever encounter; thus, how are Marines expected to relate to a common definition of resilience by returning to a pre-adverse state? These stories provide extraordinary examples of how Marines often persevere beyond the confinements of uncommon hardship and adversity. These men set examples for all Marines to emulate and in turn encourage them carry on the legacy of the organization. Greitens (2015) mentions in his book *Resilience* (from the CMC's reading list) that most people learn quickly from models and anyone can benefit from finding and emulating a role model. Sergeant Meyer took the initiative to support his brothers-in-arms without regard for his own safety. Gunnery Sergeant Hathcock displayed selfless instinct to save his comrades no matter the physical or mental cost. Corporal Dunham made the heroic decision to lay down his life to save his team.

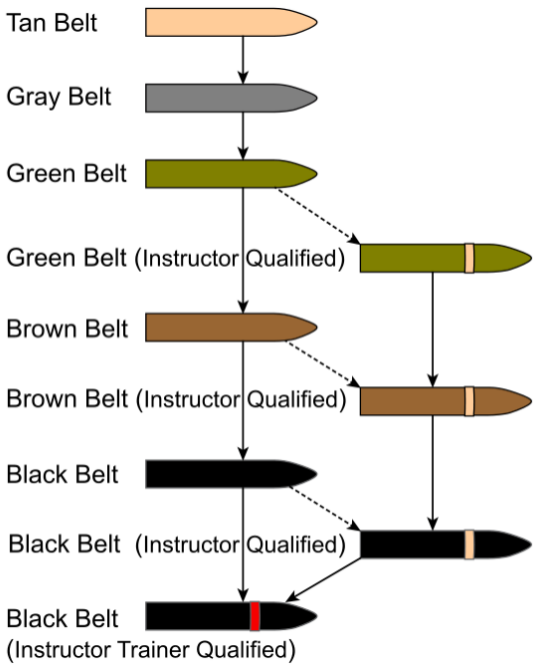
These men made everlasting selfless decisions in the sheer face of adversity, thus demonstrating resilient actions. The question remains: how can Marine Corps leaders imbue the concept of resilience into the Corps' ranks to ensure Marines will not be defeated by adversity, both on and off the battlefield? A solution may be to first bring awareness to the concept of resilience as it pertains to *being* a United States Marine, and then focus on ways of enhancing it through tough realistic training as outlined in MCTP 3-30E (USMC, 2016b, p. 1-16). However, awareness starts with a cultural definition of Marine Corps resilience.

C. INSTITUTIONALIZING THE MCMAP

The MCMAP offers Marines a dynamic approach to synthesizing their mental, physical, and character disciplines and empowers Marines to harness their warrior ethos. The MCMAP was developed in 1999 and implemented in 2000 by General James L. Jones, 32nd Commandant of the Marine Corps. It is the third martial arts program adopted by the Marine Corps, and the longest standing program since martial arts has formally been institutionalized within the Corps. There were two programs prior to the MCMAP: Linear Infighting Neural Override Engagement (L.I.N.E.), and the Marine Corps Close Combat (MCCC) training program. Both programs were one-dimensional and lacked a curriculum that develops Marines' soft-skills such as reemphasizing core value-based training, teaching tactical decision games, combining annual training, and providing leadership opportunities. Major Richard Hall, a previous Command and Staff College student, wrote about numerous benefits of the MCMAP just after it was institutionalized. Specifically, Hall emphasized that both the mental and character disciplines of the MCMAP increased the value of the program far beyond the previous two programs (2002). This is arguably the discipline that receives the least amount of attention during training. It takes less time to focus on physical training then it does to thoroughly deliver warrior case studies, tie-ins, martial culture classes, etc. It can also be argued that these types of interactions shape a Marine's perspective on adversity far more than simply focusing on martial arts techniques or physical fitness. Neither L.I.N.E. nor MCCC focused on the entire warrior concept as the intended outcome, only on the physical discipline; this is what led to each program's

failure. The tangible evidence that set the MCMAP apart is that the Marine Corps adopted a reward system by offering individual recognition through a belt-colored ranking system outlined in Figure 1. The five user belt levels are tan, gray, green, brown, and black.

Figure 1. The MCMAP Belt System. Source: USMC (2019b).



The term "user" recognizes Marines who certify at that belt level. For example, a Marine that trains for and passes a gray-belt performance examination and certifies as a gray belt is considered a gray-belt user. They have earned the privilege to wear a gray belt with their Marine Corps utilities uniform. Unlike other Marine Corps programs where participation is optional, every recruit and officer must qualify at the lowest level of MCMAP before earning the title Marine. Thus, every Marine must become a student of the program from their inception into the organization. However, there is an opportunity for Marines to exceed the user-level status by attending an advanced MCMAP course, provided that they meet the prerequisites. For example, any Marine who earned at least a gray belt, is an E4 or higher, and is PME complete for their grade may attend a Martial Arts Instructor (MAI) course. This course certifies Marines as instructor, thus enabling

them to teach the program to other Marines equal to or lower than their current belt level. Furthermore, MAIs may strive to attend the Martial Arts Instructor Trainer (MAIT) course at the Martial Arts Center of Excellence, Quantico, Virginia. This seven-week course certifies Marines as MAITs to later train certify Marines as MAIs.

Understanding the methodology of how these disciplines are developed and delivered, through instruction and assessment, is important to students of the program who are striving to find balance among the three disciplines. An example of a Marine training to earn a black belt in the MCMAP will have to learn and prove their proficiency in the curriculum outlined in Figure 2 via a belt level performance test.

Figure 2. Black Belt Lesson Designator. Source: USMC (2019b, enc. 6).

20	Hrs	03	Min	Performance based	Sustainment
1	Hr	0	Min	MCCS-BLAK-2061	Execute bayonet techniques ***Eternal Student***
1	Hr	0	Min	MCCS-BLAK-2062	Execute sweeping hip throw ***Concept of the leader and the follower***
1	Hr	45	Min	MCCS-BLAK-2063	Execute ground fighting ***Maneuver Warfare***
1	Hr	0	Min	MCCS-BLAK-2064	Execute the neck crank takedown ***Leadership Styles***
1	Hr	0	Min	MCCS-BLAK-2065	Execute chokes ***Sustaining the transformation***
1	Hr	0	Min	MCCS-BLAK-2066	Execute knee bar ***Marine Leader Development Program***
1	Hr	0	Min	MCCS-BLAK-2067	Execute firearm disarmament ***Decision Making***
1	Hr	30	Min	MCCS-BLAK-2068	Execute upper body strikes ***Values and Beliefs***
1	Hr	30	Min	MCCS-BLAK-2069	Execute knife techniques ***Risk Management***
1	Hr	30	Min	MCCS-BLAK-2070	Utilize weapons of opportunity ***Ethical Leadership***
0	Hr	30	Min	Lecture	Fundamentals of a Combat Mindset
0	Hr	30	Min	Lecture	Master of Arms
1	Hr	0	Min	Lecture	Martial Culture Study: Zulus
1	Hr	0	Min	Performance based	Free Sparring ***Developing SubordinateTie-Ins***
1	Hr	0	Min	Performance based	Combat Conditioning
4	Hrs	0	Min	Performance based	Integration training
40	Hrs	45	Min	Training time	

The far-left column outlines the amount of time it should take for the MCMAP students to understand and apply the set of martial arts techniques. The center column is the method of delivery and execution of the program material. The far-right column depicts the set of martial arts techniques that are taught and evaluated. Of note, the same column also highlights the mental and character tie-ins in bold, tie-ins which are associated with each set of black belt techniques. Tie-ins are Marine Corps parables that connect and reinforce cultural values and traditions, while also promoting organizational programs. Each tie-in is testable, and the evaluation is based on how well students can demonstrate their ability to remember, understand, and effectively apply its concepts. Of note, to advance to the next belt level each student is required to practice each technique, and associated tie-in, for the prescribed amount of time outlined in the top row of the far-left column. Furthermore, the higher the student's belt level, the more sustainment hours they must record for all previous belt levels. This is a building block approach such that a Marine aspiring to earn a black belt must sustain techniques and tie-ins from previous belt levels for a total of 20 hours. This time is added to the number of hours required to learn belt-specific techniques; black belt alone consists of 20.12 hours of training and education. This totals 40 hours and 5 minutes before the student can test for a black belt. Notably, MAI/Ts can train Marines any time and any place that is safe. The hours are recorded in the trainee's personal logbook, and when all training requirements have been recorded and satisfied, the Marine will test for the aspired belt. Furthermore, increasing the social diversity of the student population encourages more social interaction, and enhances each student's level of training due to the various experiences that come with numerous demographic backgrounds. For example, a lieutenant colonel can share professional experiences with their classmates during core value guided discussions that enable less experienced Marines to draw a new perspective on their career or personal life. This is where the program truly shines in the way it provides positive social interactions and an implicit method of passing the legacy of the Marine Corps from the older generation to the new.

One of the most important aspects of the MCMAP is that it provides opportunities for students to receive and learn from stories like Sergeant Meyer's experiences during the battle of Ganjgal and Corporal Dunham's ultimate sacrifice during the war in Iraq. These

types of instruction are known as warrior case studies and are delivered by the martial arts instructors in a group setting. Any past or current Marine can be studied and used as an example of how to enable the combat mindset to unleash the true warrior spirit. The MCMAP MCO identifies the purpose of warrior case studies as being "designed to give the Marine the ability to compare and contrast aspects of warriors' individual actions with their own experiences in the Corps" (USMC, 2019b, p. 1-1). This relates to Greitens' notion of learning from models and being able to understand how others successfully endured the worst adversities. Warrior case studies place the MCMAP students in the role of the individual being studied and analyze how and why decisions were made under stress. This provides an example for students to base their decision-making abilities on in similar future situations.

- Current Policy

The most current MCMAP MCO was revised and published October 2, 2019. It contains multiple changes from previous versions, but the most important revisions are within the intent, execution, and end-state of the program. The commander's intent of the MCMAP from the 2010 version of the MCO reads, "MCMAP is an integrated, weapons-based system that incorporates the full spectrum of the force continuum on the battlefield, and contributes to the mental, character and physical development of Marines…" (2010b, p. 1). The 2019 revision to the commander's intent reads, "develop the moral, mental, and physical resiliency of individual Marines and ultimately the unit as a whole" (USMC, 2019b, p. 1). In less than a decade the MCMAP has shifted its focus from simply being a weapons-based system to enhancing the resiliency of individual Marines. A system can be the most advanced process in the world, but without Marines to fill that system, the system remains worthless. Therefore, the MCMAP leadership shifted the focus of the program from the system to the individual. This further reinforces the need for Marine Corps leaders to culturally define Marine Corps resilience. If Marines are expected to increase their moral, mental, and physical resiliency, they deserve to understand exactly what resilience is when used in those contexts. Moral, mental, and physical aspects of a Marine are vastly different. Applying the broad recognition of resilience - bouncing back or recovering - to physical resiliency, does this mean recovering from physical injury or never quitting due to physical

pain? This research will provide to Marine Corps Training Command stakeholders recommendations that they adopt a common language of Marine resilience that all Marines can relate to.

The revised MCO also identifies how the MCMAP students will enhance their moral, mental, and physical resiliency by advancing through the program. "[The MCMAP will expose] Marines to physical hardship and interpersonal violence by placing emphasis on Professional Military Education (PME), study of warrior cultures, and frequent experience with combative techniques and environments" (USMC, 2019b, p. 2). This highlights that the MCMAP sponsors and leadership value placing Marines at the forefront of adversity within a controlled environment. Education is also valued in the MCMAP, with its specific concentration on studying other warrior cultures. These methods are filled with tough, realistic training and are believed to provide the following results according to the MCMAP MCO: "Marines and units that are more lethal, exhibit greater resiliency, and are equipped to handle the rigors of combat" (USMC, 2019b, p. 2). However, this policy revision concerning the idea of enhancing individual resiliency has not been proven with empirical evidence.

The MCMAP falls under the Marine Corps Force Fitness Division, and on the unit's website the following passage was recently (as of February 2020) published:

> Resilience is an important aspect of a Marine's personal and professional life. It ensures that when faced with the challenges all Marines face in and out of combat, they will be able to meet those challenges, drawing from internal and external sources of strength and support. How Marines build and maintain resilience is unique to each Marine and every Marine unit. However, there are 8 areas, or "domains," in which Marines can assess, build, and maintain their overall resilience: Physical, Nutrition, Psychological/Mental, Social, Spiritual, Medical & Dental, Financial, Environmental. (USMC, n.d., para. 1).

This passage reinforces the fact that the Marine Corps highly values the concept of resilience. It also offers a relatable definition for Marines and depicts the concept as an ability vice a process as written in current publications. It also boasts that resilience is unique to the Marine Corps, to individual units, and individual Marines. This excerpt argues against sharing a definition with the Navy as the Marine Corps currently does. Lastly, the passage

outlines the complexity of resilience by offering eight domains that Marines can personally assess, build, and maintain their own overall level of resiliency. However, the passage leaves the reader, or Marine, without a method of accomplishing the intent in order to gauge what domains need attention. Ultimately, this update proves the Marine Corps is invested in the concept of resilience but does not yet have an effective method(s) of enhancing it.

It is important to recognize some downfalls of the current MCMAP policy. Current policy only requires Marines to obtain a tan belt throughout their career; any higher belt is only a recommendation. Furthermore, the revision implemented enlisted rank restrictions for certain belts. Any rank can earn a gray or green belt, corporals and above can earn a brown belt, and sergeants and above can earn a black belt. Currently, there are few incentives to participate in the program beyond earning a tan belt. First-term Marines can earn higher belt levels to accumulate reenlistment points. Marines can earn points if they earn a belt level higher than the average belt level possessed by Marines in their MOS. However, the newly implemented rank restrictions may hinder this opportunity. MCMAP belts may also be considered for helping Marines during promotion, command selection, and enlisted meritorious promotion boards. Of note, there are no incentives to practice learned techniques. Once a Marine certifies at a specific belt level, they are no longer required to sustain what they have learned for the remainder of their career. The only exception is if a Marine aspires to advance to the next belt level. Therefore, Marines possess a belt level certification as if their skills are unperishable, unless they take it upon themselves to practice what they learned. Some form of annual recertification would address this but would require time and top down support to ensure it happens.

D. CONCLUSION

In summary, this chapter recognizes the relationship between resilience and the Marine Corps. Historical events prove that resilience is deeply imbedded in the Marine Corps culture. Numerous Marines have demonstrated resilience by overcoming adversity through courageous actions and sacrifices. Historical stories are then passed on through organizational programs like the commandant's professional reading list and the MCMAP. These programs help instill a newfound perspective and sense of purpose on the next

generation of devil dogs. The MCMAP is the best program for this research due to the revision to the MCMAP MCO's direct focus on enhancing Marines' resilience. Of note, the Marine Corps must first define resilience before finding a method of assessing it. Without that, there is no evidence to support that the program produces Marines who lead a more resilient life.

III. LITERATURE REVIEW

He who has a *why* to live for can bear with almost any *how*.

—Friedrich Nietzsche

A. MULTIFARIOUS MEANINGS OF RESILIENCE

There has been extensive academic research on the complex and dynamic notion of resilience; however, few studies provide insight on resiliency in the military and even fewer on resiliency in the Marine Corps. The lack of empirical research and a relatable definition exploits an opportunity for the Marine Corps to close the gap on a cultural concept of individual resilience. Furthermore, there is debate amongst researchers regarding what field of study resiliency is applicable to. Researchers Jain et al. (2014) identified numerous scientific fields that are associated with some form of resilience. They specifically highlighted, "systems biology, systems engineering, mathematics, biology, psychoneuroimmunology, psycho-neuroendocrinology, sociology, medicine and psychology," and the U.S. military, in which all fields "gathered and strived towards creating an interdisciplinary, systems-based models for understanding resilience" without prevail (p. 1). Notably, the authors recognized a study of human resilience conducted by Research and Development (RAND) Corporation unearthing 122 meanings of resilience with three common themes: evolution across time, adaptability to adversity, and returning to a new norm vice the common notion of "bouncing back" to pre-adverse normality (Jain et al.). These three themes offer a newfound understanding of the concept of individual resilience by recognizing time as a necessary resource for someone evolving towards a new norm. Of note, it is *what* Marines do during adversity that determines if they are resilient or not. This is similar to the views of researchers Folke et al. (2010), who acknowledge resilience as an active concept that requires individuals to take initiative in the presence of adversity. They further suggest that this may be accomplished by actively transforming crisis into a manageable situation by drawing upon personal experiences and knowledge; the key is to take action and not remain stagnant and

develop purpose in the face of adversity. These findings support the idea that resilient people grow through adversity with a purpose, which is similar to the message depicted in Eric Greitens' book *Resilience*: "Resilience is the virtue of growing through suffering and struggle" (2015, p. 228). This excerpt suggests that suffering and struggling are necessary precursors to resilient action(s). More importantly, Jain et al. (2014) identify the difference between the concept of resilience and resilient actions: "The act of being resilient is an adaptive response to stressors that is, ultimately, dependent on context" (p. 2). This point relates to the tone policymakers have taken while delivering directives that relate to the concept of resilience. For instance, General Neller (2016a) stated that Marine Corps leaders must "demand resilience in Marines and Sailors," signaling that human resilience can be enhanced (USMC, p. i). Similarly, President Trump addressed "promoting American resilience" in the National Security Strategy, which further suggested that the concept of human resilience can be enhanced (White House, 2017, p. 14). This evidence proves that policymakers demand action and not processes.

The DoD also conducted studies on the concept of resilience with a heightened focus on the residual impacts on servicemembers post-war. The recent wars in the Middle East have caused many servicemen and women to become victims of post-traumatic stress (PTS); however, policymakers are continuing to shift the attention of human resilience from reactive (victim) to proactive (strength). Researcher Litz suggested that the focus on finding and implementing ways to help prevent, and mitigate, the devastating impacts of PTS will help increase an individual's ability to endure conflicts and face adversity (2014). Shifting the definition of resilience from a process - used as a noun - to a strength-driven trait will help increase combat readiness in the U.S. military, and, more specifically, the Marines. Furthermore, a servicemember's family is large influence on the resilience level of a servicemember, especially before, during, and after deployments. By also focusing on servicemembers' families, and how families can help foster a resilient lifestyle, will encourage Marine leaders to acknowledge these influences in Marine Corps resiliency training material. Researchers from RAND Corporation conducted studies that analyzed the impacts of the military lifestyle on servicemember's families, and ways of enhancing psychological resilience in the military. Few researchers have studied the Marine Corps

with regards to resilience, but those that have, have offered a keen aspect on the power that the Marine Corps culture has on its historical resilient actions.

B. ACADEMIC RESEARCH

There have been copious amounts of academic research and literature that has taken aim at capturing a relative theory of resilience; however, there remains much debate on what or how human resilience works. This section extracts the foundations of some of those theories as they are applicable to the culture of the Marine Corps.

1. Theories

The concept of resilience is complex and relative to many aspects in life. Researcher Masten (2001) mentions two aspects of the concept that must be present before resilience can become an active ability of a person. A situation requires risk(s) of derailing normal development and an opportunity for a *good* outcome. Both aspects set the stage for people to "bounce back," however, neither aspect mentions how much time is necessary before a situation can be derailed, or how long a person can struggle to reach a good outcome. Various academic studies support the notion that resilient people bounce back from adversity, or as researchers Catalano et al. (2002) stated, "an individual's capacity to successfully adapt to change and stressful events in healthy and constructive ways" (p. 16). Specifically, the quicker someone bounces back from an adverse situation the more resilient they are considered. Catalano et al. took Masten's theory a step further by focusing on the post-adverse events, or how quickly a person can bounce back and recover from adversity. However, most studies lack empirical evidence supporting this idea and still miss a powerful component of resilient action(s). Author Diane Coutu of *How Resilience Works* presented interesting results regarding the relationship between how resilient people and resilient businesses operate. She outlined no distinct difference between either and as a result formulated three common theories concerning the operability of resilience: recognize the reality of an adverse situation; embody unwavering values that engage a positive prospective; and adopt the ability to improvise (Coutu, 2002). These three theories directly relate to the structure and culture of the Marine Corps. The first theory of acknowledging

reality enables people to make informed decisions on how to handle whatever situation presents itself. For example, Marines train as they fight. The Marines structure training environments to mimic various battlefield hardships to prepare Marine Corps warfighters to face the realities of future conflicts. Coutu also stated that when people accept reality for what it is, they prepare themselves to "act in ways that allow [them] to endure and survive extraordinary hardship" (p. 50). This identifies the missing component from both Catalano et al.'s and Masten's views previously mentioned. Marines Meyer, Hathcock, and Dunham all faced and accepted reality during those defining moments filled with adversity, which allowed them to *act* through extraordinary hardships. Furthermore, they were able to gain an objective perspective of the adverse situation and this enabled them to embody their organization's leadership objective: Mission accomplishment. Coutu's second theory of finding *purpose through values* aligns with the Marine Corps' core values - honor, courage, commitment - which are instilled in every Marine during their indoctrination into the organization. These values serve as a moral compass for all Marines to embody daily. They also offer Marines a purposeful prospective view on the *Marine* lifestyle unknown to any other culture. For example, should a Marine face a situation that stops the progress of their mission, Marine Corps core values will factor into the Marine's decision on how to respond to that situation. A Marine's internal dialect will filter questions like: Will my reaction(s) to this situation honor the organization or the Marines I serve with? Am I staying committed to the mission and my Marines if I…? Furthermore, Coutu argues that "values…are more important for organizational resilience than having resilient employees on the payroll" (p. 52). Even though organizational resilience is not the premise of this thesis, Coutu highlights the invaluable importance of core values to all organizations and their patrons. The bottom line is, organizational values drive individual decisions, and decisions ignite individual action. The final theory from Coutu mimics the notion of adaptability. One of the most renowned mantras of the Marine Corps is "Marines improvise, adapt, and overcome." This adage empowers Marines to act through adversity by psychologically improvising a new viewpoint of a situation which will enable them to quickly adapt and overcome an obstacle. This acknowledges the fighting spirit of a Marine's warrior ethos. Ultimately, Coutu offers that an organization or individual can be

considered resilient by exemplifying two of the three theories, but truly resilient people harness all three qualities (2002). Therefore, a Marine Corps program that aims to enhance a Marine's level of resilience should replicate a complex method of execution that begins with shaping a Marine's perspective.

2. Maintaining Perspective

Tugade and Frederickson conducted research that focused on the psychological construct of resilience and used the broaden-and-build theory as a method of analysis. They found that people who acknowledged their current emotional state, effectively managed it, and maintained a positive perspective through negative times were ultimately able to react in a resilient manner (2004). This theory is paramount for the Marine Corps to recognize when considering programs and tools that promote resilience in first-term Marines. One could assume that most Marines serving their first term tend to be younger and potentially let their emotions drive their decisions more often than older Marines do. Interestingly, researchers Catalano et al. stated that, "building resilience in young people is an important goal if we are to strengthen capacity and promote skills that help to reduce mental health problems" (p. 1). This thesis does not focus on mental health but does consider the strong connection between the psychological concept of resilience and a Marine's mental health. Marines that comprehend these concepts are empowered to recognize and maintain situational awareness by simply altering their perspective on an adverse situation. Researchers Cohn et al. (2009) also found that, under the broaden-build theory, an increase in resilience strengthened the relationship among "positive emotions and increasing life satisfaction, suggesting that happy people become more satisfied not simply because they feel better, but because they develop resources for living well" (p. 361). The Marine Corps provides multiple resources for Marines and their families aimed at improving their wellness of living, like the Marine Corps Community Services, the Chaplain corps, the Military and Family Life Counseling, the family readiness officer, victim and witness assistance, etc. Researchers Catalano et al. noted that one way to build resilience is through "meaningful participation" in the resources provided by the organization (p. 3). These programs are unique to the Marine Corps; however, participation levels can always be

higher, and few of them focus on recognizing emotional imbalance or altering personal perspectives on adverse situations as stated by Cohn et al. (2009). To witness results similar to this study, Marines must first be educated on ways to recognize emotional variation and change their perceptions of stressful events. For example, Marines could add online resiliency training to their annual training requirements - but would additional online requirements for Marines make the Corps a strong force? A recent study found that the answer to this question may be *yes*. The study measured the variation in a participant's level of resilience after completing online resiliency training. Researchers Smith et al. (2018) were able predict that, on average, a person's level of resilience would "raise 12 percent after participating in five hours of online resiliency training" (p. 4). The treatment simultaneously reduced both stress and somatic levels. Marines are already required to complete multiple online training modules annually; however, there is a vast difference in education and practical application concerning the concept of resilience. Greitens wrote, "It's helpful to know something about resilience, but to be resilient you have to practice, to train in resilience. Education is different from training. Education aims to change what you know" (2015, p. 156).

3. Resilience as a State of Being

What if the focus of human resilience shifted from *what it is* or *what it does* to focusing on *mimicking resilient Marine Corps models*? With this in mind the Corps could easily reinforce the concept of resilience to Marines by providing examples of resilient Marines and discussing why they are considered resilient. Marines work best when they have a model to emulate. Greitens offers a simple thought-model that gives personal perspective on how someone can gain a resilient identity. He believes that most people allow their feelings to drive their actions, and then their actions define their identity (2015). In contrary, few people select their identity up front, and as a result provides the individual with a clear set of actions to assume that identity. By relating Greitens's model to the Marine Corps, Marines understand the identity of a good Marine, and those that choose identity over feelings strive to earn that recognition of a good Marine every day. This is an endless and selfless process. Adding further context to this notion, researchers Diržytė et

al. (2017) stated that resilient people have a "conscious acceptance of reality; a deep belief that life is meaningful; this belief is often based on a firm value system; a strongly expressed ability to flexibly adapt to significant changes in life and to overcome life's challenges and difficulties, including economic ones" (p. 491). These traits can be easily transcribed into Marine Corps training programs, or even resilience advertising, so Marines can mimic resilient models. Therefore, highlighting and acknowledging the many resilient actions of past and present Marines will provide the necessary awareness of cultural resilience that leads to a definition that the Marine Corps deserves. The bottom line is, resilience is best seen as someone *being*, or acting, resilient. Resilience is not a default reaction to adversity; inaction is still action and negative resilience does not exist. A person is either resilient, or not, as a form of *being* that is justified by their actions.

4. Cultural Perception

Further research examined the polychotomous affiliation between resilience and culture. Researcher Almedom reported that resilience in the English language is not automatically associated with *human* resilience as it is in other cultures like her own (Almedom, 2015). Likewise, Ungar expresses a lapse "in sensitivity to community and cultural factors that contextualize how resilience is defined by different populations and manifested in everyday practices" (Ungar 2008). When considering a Marine Corps definition of resilience, it may help to recognize this gap in cultural communication when issuing directives and guidance to the "melting pot" of America; a relatable definition that is amenable to all cultures therein. Almedom wrote that human resilience must be openly broadcasted for appropriate recognition because when the term is used "universally" it tends to become "dehumanized" (Almedom, 2015). Furthermore, the Marine Corps is made up of servicemembers from numerous cultural backgrounds, all of whom may have a differing perspectives of human resilience. Gaining a cultural definition of individual resilience that is specific to the Marine Corps will eradicate continued confusion. Interestingly, Almedom also mentions three major themes within various studies and policies that involve the notion of human resilience. The last of the three themes evokes that "narratives of human resilience fuel the sustainability of interconnected health and

social systems across cultures" (Almedom, 2015, p. 2). When building resilience within a culture, this theme helps capture the power of teaching warrior case studies through the MCMAP, reading books from the commandant's professional reading list, and studying Marine Corps history through PME. Ungar (2008) suggests that researchers cannot merge an amenable definition of resilience across cultures because that takes away from the finite mechanisms that make every culture unique. The Marine Corps is already designed for continuously building human resilience as long as it capitalizes on those existing cultural methodologies.

5. Cultural Recognition

If a Marine is unique simply because of their ties to their organization, then is it appropriate to omit the culture of the Marine Corps in the definition of resilience? Researchers Almedom et al. (2015) help answer this question by comparing multiple resiliency studies and applying their findings to the concept of psychosocial resilience. They stated,

> [Resilience] encompasses a dynamic multidimensional set of personal capabilities as well as social and material assets/resources that individuals, families, and communities mobilize to mentally and emotionally embrace "turbulent" change and transformation while maintaining routine functioning without loss of identity, integrity, or core purpose in life that defines them as who they are individually as well as collectively (p. 1).

This definition offers a newfound perspective of resilience that recognizes both the social construct of an organization and the individuals therein. It also relates to how the Marine Corps, as an organization, continuously prepares for combat in order to embrace for the turbulence associated with deployments. Additionally, unique Marine Corps programs offer resources to help servicemembers and their families prepare for future hardships that are also associated with deployments. A prominent Marine Corps program knowns as the Unit, Personal and Family Readiness Program (UPFRP), provides the following commanders' intent in the current MCO:

> 1) [to] maintain ready Marines, Sailors attached to Marine Corps units, eligible beneficiaries, and authorized contacts…, and equip them with the

> knowledge and tools necessary to successfully meet the challenges of deployment and unit mission.
>
> 2) [this order] directly impacts Marines and families building *resiliency*, commitment, morale, and increasing unit readiness. (USMC, 2019c, p. 2)

This up-to-date excerpt is a product of the policy-driven paradigm shift evolving the concept of resilience delivered in the aforementioned policy-shaping documents from reactive (victim) to proactive (strength). More importantly, this policy recognizes the importance of a Marine's combat readiness which is empowered by organizational resources in hopes of cultivating resilient actions. Even though the UPFRP is devoted to strengthening the combat readiness of Marines, preparing their families for hardships, and "building resiliency" therein, it does not offer a definition of what resilience is, or how it can be assessed; nor does it provide evidence in how it can be enhanced. This continues to add confusion to the issue concerning tangible methodologies focused on enhancing something that is not defined while also lacking a system of measurement. However, the focus remains on the individual Marine as a representation of the organization. Therefore, the definition must recognize the organization while centering the concept around the individual Marine. As previously mentioned, General Neller (USMC, 2016a) acknowledged the Marine Corps' "need for resilient Marines and Sailors" within the MCOC. Neller bestowed on Marines a requirement for a newfound perspective on *individual* resilience as it pertains to developing abilities to better manage adversity. Interestingly, Neller did not focus his message on creating a resilient organization; he stressed the importance of enhancing resilience within *individual* Marines as a method of influencing the organization as a whole. However, the Corps still lacks a method of assessment and should select one, or many, with caution. Researchers Almedom et al. acknowledge that resiliency is hard to assess, and any researcher's findings are subject to some form of bias. However, many researchers like Almedom et al. (2015) recognized a common approach to gathering scientific data by conducting surveys with open ended questions and responses scored on a scale offer the most appropriate methods of assessing individual resilience. It is important to recognize the many limitations of surveying individuals with preconceived measures, and there is no single perfect methodology for

measuring individual resilience. Of note, this thesis will report the results from Marines who were asked to provide feedback on open-ended questions and resiliency survey scales.

C. METHODS OF ASSESSMENT

There are various methods of assessing human resilience such as interviews, surveys, and various scales. The two methods used in this research are based on five-point Likert scales. The first scale is the Brief Resilience Scale (BRS) created by researchers Smith et al. (2008). The BRS contains six questions that aim to assess the respondent's level of resilience based off the premise of "bouncing back" from stressors or hardship. The second resiliency scale belongs to the Psychological Capital Questionnaire (PCQ), which Larocco and Sopko (2017) stated was first developed by Luthans, Youssef and Avolio in 2007. The PCQ is made up of four separate scales: hope; optimism; self-efficacy; and resiliency, totaling 24 questions to complete the PCQ. This research will focus on the PCQ resiliency scale and be denoted as PCQ(r). Researchers Luthans et al. (2007) explain that psychological capital is a person's "positive psychological state of development;" it is a state in which the individual is driven by the four constructs (p. 3). Thus, if an individual focuses on enhancing each of the four constructs, then Fred Luthans et al. suggest that those individuals will increase their performance at work and be more satisfied with their job. Taking this research a step further, Judge and Watanabe (1993) suggest that there is a sound relationship between a person's level of satisfaction with their job parallel with their life.

1. Brief Resilience Scale

Researchers De La Rosa et al. (2016) used the BRS as a measure to validate a new method of assessing stress in military servicemembers. These researchers believe a shorter, or *brief*, method of evaluation is superior to longer assessments because people tend to get bored taking longer assessments and it saves researchers time issuing and analyzing the results. Furthermore, Noyes et al. (2011) analyzed 19 current resiliency scales and assessed the value of each based off the corresponding psychometric properties that were included in each scale; the BRS was deemed a top three scale given these ratings. Authors Smith et al. (2008) noted that the BRS "predictably related to personal characteristics, social

relations, coping, and health in all samples. It was negatively related to anxiety, depression, negative affect, and physical symptoms when other resilience measures and optimism, social support, and Type D personality (high negative affect and high social inhibition) were controlled" (p. 1). Ultimately, the BRS is a trusted evaluation method under the premise of bouncing back from adversity, thus was selected in this thesis as a primary method of assessing participating Marines' level of resilience.

2. Psychological Capital Questionnaire

The original PCQ is a 24-question survey based off a six-point Likert scale that offers an average return on an individual's level of hope, self-efficacy, optimism, and resiliency at the time of the assessment. Researchers Lorenz et al. (2016) conducted a study using an abbreviated version of the PCQ known as the Compound Psychological Scale (CPC-12) that entails only 12 of the original 24 questions of the PCQ. Their research found a strong relationship between the PCQ and CPC-12, validating the use of the CPC-12, which showed an "average score of 4.64 for the resiliency scale" from a survey population of 321 participants on the six-point scale (p. 8). Linley et al. (2010) defines the concept of resilience, used in the PCQ and the CPC-12, as a "developable capacity to rebound" from hardship or turmoil (p. 583). Furthermore, researchers Meyers et al. (2015) found that college students that endured a strength-focused intervention study decreased each individual's academic deficiencies in the long-run with the determining construct being the hope scale of the PCQ. This highlights two important points. First, the PCQ is a valuable tool for organizations to use in assessing mental wellness and may provide value to them if they incorporate it into their culture in hopes of gaining the aforementioned positive returns. Secondly, the PCQ can be enhanced by simply focusing on one scale, i.e., the resiliency scale; this is one of the two main assessment tools used in this thesis. Of note, the results gained from the resiliency scale is one factor of a larger outcome, as it pertains to influencing the organization through the individuals. For example, Durukan et al. (2018) conducted a study on hospital staff in Turkey and found that higher levels of individual psychological capital were closely associated with job fulfillment that lead to enhanced "organizational commitment" (p. 160). A similar examination on Chinese nurses

conducted by researchers Dan et al. (2018) found that psychological capital was a strong predictor of job satisfaction within their organization. Therefore, if the Marine Corps can adopt similar assessment tools to influence the individual Marine, then research suggests that a positive return will be gained by the organization as well. This may offer a powerful leadership tool, retention tool, or productivity indicator that would continue to positively impact the culture of the Corps.

3. Protean Career Orientation

This research used a third method of assessing whether Marines who attend the MAIT course do so in order to benefit their career or do so because they are career-driven Marines. Researchers Herrmann, Hirschi, and Baruch (2015) analyzed the validity of the German-born protean career orientation scale, which is a newly westernized method of measuring an individual's propensity to make decisions simply because it will benefit their career. Marines that self-select to attend the MAIT course must volunteer and gain financial support from their command to travel to the course in Quantico, Virginia (USMC, 2019). This thesis recognized the value of the Herrmann, Hirschi, and Baruch (2015) findings, where "German employees showed positive correlations between a protean career orientation and career satisfaction, job satisfaction, work engagement, and career planning" (p. 212). If the Marine Corps adopts a similar scale, the organization may benefit from gaining insight on retention and attrition rates. Interestingly, there have been studies that show a relationship between psychological capital and the protean career orientation. Furthermore, researchers DiRenzo et al. (2015) stated that the "[protean career orientation] was positively related to work-life balance through heightened career planning, the accumulation of social and psychological capital, and enhanced perceptions of employability" (p. 29). There are a few points drawn from this excerpt. First, the Marine Corps possesses many resources that provide Marines with career counseling that helps them make career-benefitting decisions. Second, organizational resources like the Marine Corps Community Services help support Marines and their families sustain a work-life balance. Last, and most significance, is the implication of an altered perception as a trend throughout this study. Whether a Marine focuses on their career, psychological capital and

health, or their resiliency, purpose-driven perception on adversity is the key element that puts these concepts into action.

D. MILITARY RESEARCH

Military leaders believe in the concept of resilience, for it is delivered in many speeches and throughout many policies throughout the DoD. This section presents how the military uses the term resilience and outlines ways to promote it throughout various military doctrines.

1. DoD

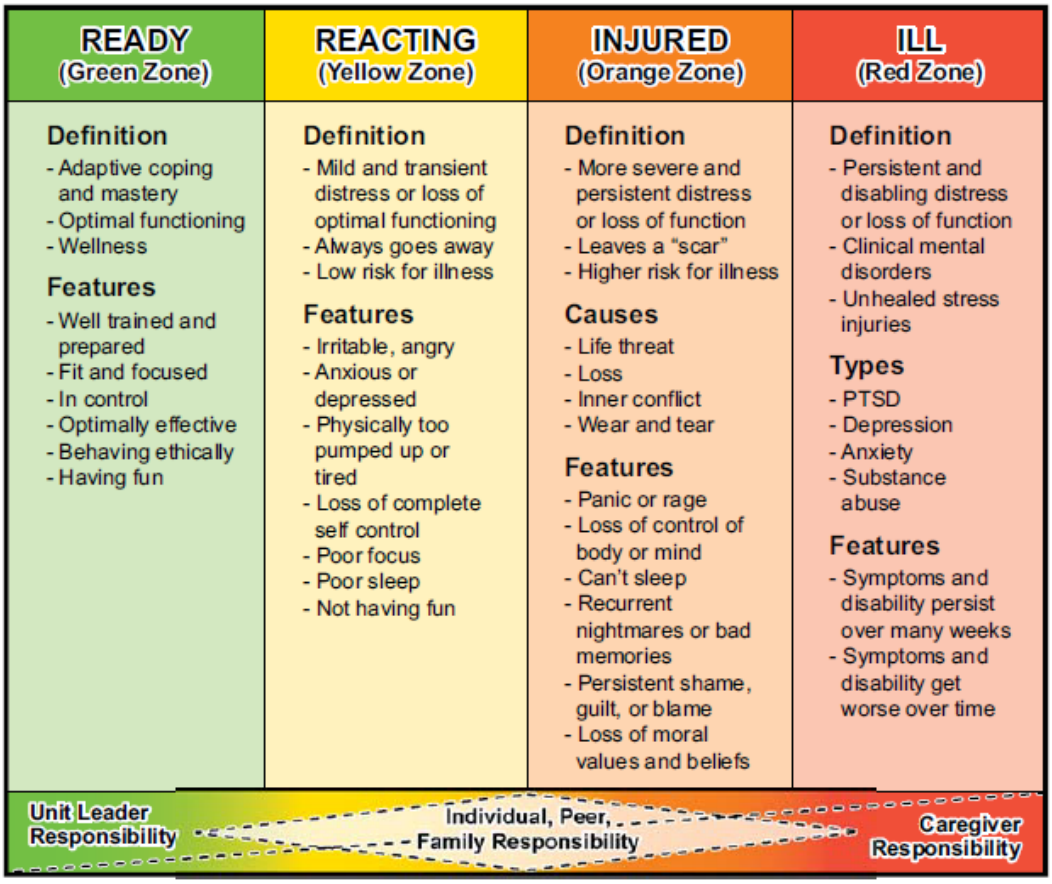
a. Localized Programs

Most resiliency research conducted on the military focuses on the residual impacts of servicemembers going to war. As a result, psychological resilience is the focus of most military studies vice some of the other human dimensions previously discussed. This draws the attention away from organizational influences, like being a part of the military, and magnifies how an individual manages previous trauma. Researcher Brett Litz (2014) offered a unique relationship between the military and the concept of resilience. He stated, "resilience signifies a process and an outcome" (p. 2). This article is one of the few within the reviewed literature that directly relates to the naval definition of resilience outlined in the Marine Corps Tactical Publication 3-30E. This definition, and corresponding publications, suggests that a "process" used as a noun is one of the main themes of the definition of servicemember resilience. Litz also studied many resiliency programs within the DoD. One specific program is the Comprehensive Soldier Fitness Program (CSF). The CSF was established in 2009 as a prevention program that strove to educate Army soldiers and families on mental fitness and resilience; however, Litz (2014) stated there is a lack of evidence that the CSF prevents negative outcomes from adversity or PTSD. This highlights further the difficulty in measuring the effectiveness of a resiliency program, which in turn, challenges the value of investing in it. The U.S. Army may have benefitted from first establishing an amenable definition and criteria for evaluation before institutionalizing

such an expensive program. Litz also studied the Navy and Marine Corps resilience continuum model, or also known as the Combat and Operational Stress Continuum Model. This model is considered the "foundational tool for COSC [Combat and Operational Stress Control] doctrine, policy, training, education, research, programs and interventions in the Marine Corps" as outlined in MCO 5351.1 Combat and Operational Stress Control Program (USMC, 2013, p. B-1).

Figure 3 is designed as a leadership tool for assessing Marine troops and sailors. It can also be used for servicemembers to gauge their personal level of stress and enable them to assess what actions must be accomplished to stay in the "Ready" green zone, or left side of the model. However, this model is based off a servicemember's current feelings of their level of stress but fails to recognize the volatility of the stress which will factor into how the user manages the model. Moreover, this model is impractical for servicemembers to use in the field, on deployment, or even on liberty. Therefore, the value of the model is limited to the education and training environment. Litz (2014) further explains that there are many forms of resilience in the military dependent on the culture or situation; thus, he adds to the conclusion that there is no general concept of resilience, model, or agenda that is fitting for the entire DoD. This conclusion helps validate why the Marine Corps deserves a cultural definition and realistic model or application of Marine resilience.

Figure 3. Combat and Operational Stress Continuum Model. Source: MCO 5351.1 (USMC, 2013, p. B-1).



b. Family and Resilience

With the uptick in the use of the concept of resilience in the military, the RAND corporation was appointed to study resilience within military families. Family members are an essential part of the military and are expected to endure the many stressors associated with the military lifestyle. Researchers Meadows et al. (2016) conducted a robust literature review of all DoD policies concerning individual and family resilience. They found that most of the studies focus on individual resilience, and that each branch of service has its own definition for individual resilience outside the Navy and Marine Corps (2016). This recognition aligns with Litz's conclusion from the previously mentioned literature that resilience is a culturally defined concept. Interestingly, the Marine Corps does not have a

definition or shared definition for family resilience yet has appointed the UPFRP as one cultural program that helps build individual and family resilience (USMC, 2019c). Of note, the UPFRP MCO does not outline specific methods of building resiliency or definitive ways to assess the effectiveness of the program's ability to enhance resiliency. Furthermore, Meadows et al. (2011) highlights the definition of resilience in the Joint Chiefs of Staff Instruction 3405.01 as "the ability to withstand, recover, and grow in the face of stressors and changing demands" (p. 2). As an overarching view of resilience in the military, the Joint Chiefs of Staff's definition identifies the concept of resilience as a servicemember's ability vice a process or outcome. This recognition segregates the difference between a process and an ability. A process can be enhanced to reach an intended outcome; however, the servicemember's ability to negotiate the process will influence the intended outcome. Therefore, the first part of the definition determines that to enhance individual resilience, the focus must remain on enhancing a servicemember's ability to face adversity. The second part of the definition outlines that adversity changes with the servicemember's action, or reaction, and those actions require an adaptive and flexible response relative to the marginal adverse state. Ultimately, this ideology of resilience is appropriate for human, or individual, resilience compared to resilience in systems or infrastructure because it concentrates on improving individual action/reactional abilities which are the source of successfully executing a process.

c. Coping

The word "process," as a way to define the concept of individual resilience, must be delivered diligently and must be relatable. Authors Meredith et al. (2011) from RAND Corporation determined just that, that by offering a definition of psychological resilience that is relatable to the U.S. military while diligently mentioning process. They defined psychological resilience as "the process of coping with or overcoming" hardships or stress (p. xiii). This is an easy and straightforward definition that offers coping as a key component of its concept and attaches individual responsibility to it. Furthermore, the process is delivered as the action, or verb, vice a noun. Coping relates to an individual's strength to conjure a new perspective on an adverse situation and positively manage that

perspective overtime. Coping is also the responsibility of an individual and cannot be built into a "step" of a process highlighting that everyone's timeline to cope with something is different. Meredith et al. (2011) also offer a dichotomous view of resilience, stressing that there is a preventative type and treatment type of resilience. Interestingly, the preventative type recognizes five individual determinants that possessed the strongest relationship with promoting psychological resilience: positive thinking, realism, positive affect, behavioral control, and positive coping (Meredith et al., 2011). These concepts can be easily intertwined into the Marine culture by teaching them through Marine Corps parables. Using the story from earlier, Gunnery Sergeant Carlos Hathcock faced the reality of the situation once he gained consciousness after the roadside bomb detonated under his truck. He was immediately given a purpose to save the lives of his comrades, a purpose that was molded by his newfound perspective. Furthermore, he also needed to maintain a positive mindset throughout his actions, otherwise, he may have given up prior to evacuating everyone from the burning truck. Interestingly, Hathcock mastered these five factors in an instant, but struggled with sustaining them over time. Notably, stories like these can offer Marines more than the simple recognition of those that served before them. They can offer Marines valuable lessons from the struggles of those that came before and how they overcame such adversities. Lastly, Meredith et al. (2011) made it a point to emphasize the importance of adopting a definition of resilience that fits the culture of the military while also providing measurable criteria for cultural programs that promote individual resilience. This is not the only article that shares value in this viewpoint.

2. USMC

a. Solely Psychological?

For all the literature that exists on the concept of resilience, few of those research articles offer an academic perspective of resilience in the Marine Corps. Those articles that report studies of the Marines do not associate human resilience solely with a Marine's state of mind. Therefore, when Marine Corps stakeholders should consider a definition of resilience that includes developable human traits and an actionable description. By limiting the scope of resilience to the psychological construct, researchers restrict a person's

complete understanding of individual resilience by negating the various other human factors associated with growing through adversity. Individual resilience in the Marines cannot be limited to one discipline such as the psychological, sociological, physical, emotional, spiritual, or moral realms. Individual resilience in the Corps must be a conglomeration of all these disciplines with an amenable descriptive definition that synergizes the various factors associated with Marine resilience. If this cannot be accomplished, then confusion will continue to cloud the role of resilience in the Marine Corps. For example, the MCMAP MCO outlines three associated human factors of resilience - moral, mental, and physical - whilst omitting a relatable way to understand and embody them individually as intended (USMC, 2019b). Notably, psychological or mental resilience may be the driver of resilient actions, but the knowledge of how to act resilient cannot be emulated without cultural models. This partly justifies why policymakers cause confusion when associating the concept of resilience to multiple domains within the military.

b. Operational Stress Control and Readiness

Frank Tortorello is one of the lead researchers throughout the few studies concerning resilience in the Marine Corps. Tortorello believes that the Corps' current perspective on the concept of resilience, as outlined in the Marine Corps' OSCAR program, is inaccurate and does not fit the culture of the Marine Corps (2014). The Marine Corps' training program that Tortorello was referring to is the OSCAR program. This program stems from MCO 5351.1 and serves as a tool for unit commanders to "maintain warfighting capabilities by preventing, identifying, and managing the impacts of combat and operational *stress*," whereas the term stress refers to the brain's chemical reaction to combat or operational stress (USMC, 2013, p. 1). This ideology, of identifying and understanding chemical changes in a Marine's brain, should encourage the Marine Corps training and education programs to focus on human anatomy and physiology, which is currently not a part of any Marine Corps-wide programs. In 2017 Marine Corps officials mandated annual training, known as Unit Marine Awareness and Prevention Integration Training (UMAPIT) 2.0, that encompasses a myriad of educational requirements from the

OSCAR program that is delivered in a two-hour period. Figure 4 is the UMAPIT 2.0 training slide that addresses the concept of resilience to the audience. The UMAPIT instructor is responsible for reiterating the concept of resilience to Marines during this period of required annual training. Of note, the UMAPIT instructor reiterates the same definition of resilience as stated in MCO 5351.1 and MCTP 3-30E, appointing resilience as a *process*. The left side of the training slide in Figure 4 portrays select internal methods of promoting resiliency among other human traits. The green box also displays ideas that may promote individual resilience from the RAND Corporation paper titled: *Promoting Resilience in the U.S. Military of 2011* - the same study reviewed earlier in this chapter. The right side of the slide identifies external factors that influence resiliency among other human traits.

Figure 4. UMAPIT Promote Strength & Resilience Slide. Source: USMC

However, referencing the research used to formulate the training media concerning the concept of resilience is the sole responsibility of the UMAPIT trainer. Doing so would help Marines become more aware of the validity of this educational training. Ultimately, the idea of resilience in the Marine Corps is formally presented to all Marines in less than

five minutes via Figure 4 of this thesis. Notably, this slide is a small part of the entire UMAPIT annual training. Therefore, if Marines are expected to recognize and promote their state of resiliency as proclaimed in policy, they deserve a more robust method of training in resiliency compared to being read a definition that the Marine Corps shares with the Navy.

c. Combat and Operational Stress Control

To provide further clarity of the foundation of the OSCAR program, Appendix A of the MCO 5351.1 Combat and Operational Stress Control (COSC) Program offers various definitions of how Marines should interpret stress depending on where the stress was derived from. For example, combat stress is defined as "changes in physical or mental functioning or behavior due to the experience of lethal force or its aftermath that may be positive or negative," yet operational stress is defined as "Changes in physical or mental functioning or behavior, resulting from the experience of military operations other than combat" (USMC, 2013, p. A-1). The program also medically defines the body's potential negative reaction to these types of stressors as a stress illness, "a mental illness/disorder," or a stress injury, which is defined as "changes in the brain and mind due to stress" (USMC, p. A-1). These definitions are paramount to understanding the Marine Corps' current perspective on stress and how the Corps counters it by training resilience as the "process of preparing for, recovering from, and adjusting to life in the face of stress" (USMC, p. A-1). Even with descriptive definitions of different stressors, there remains much ambiguity in recognizing what defines "changes in the brain" and how Marines are expected to negotiate an unidentified process that prepares for and recovers from those changes. Further confusion is added when the doctrinal definition calls for resilience as a process but conversely states that it is "the *ability* to withstand adversity without becoming significantly affected, as well as the *ability* to recover quickly and fully from whatever stress-induced distress or impairment has occurred" (USMC, p. 1-2). This definition of resilience does not support the definition found in the glossary of the doctrine and uses the word "ability" as the premise of resilience vice a process. Abilities are trainable skills and processes are guidelines for people to go through. Since the Marine Corps' uniqueness is

bred from the Marines within, the focus should remain on developing the people that make the Marine Corps what it is. In his *Gazette* article, Tortorello concluded that the Corps should focus on social/cultural adaptation to stress with a keen motive on *what* Marines *do* during stress that makes them resilient, and then train Marines to become resilient through tactical decision games surrounding what past Marines have successfully *done* during stressful situations (2014). In part, Tortorello is suggesting that the Marine Corps should focus on past Marines' actions as method of training resiliency and given them warrior case studies.

d. Training for Resilience Checklist

Appendix B of this thesis is the "Training for Resilience Checklist" of MCO 5351.1, which is a dated version of the Appendix A of this thesis from the MCTP 3-30E. However, the Corps' use of Appendix B is still mandatory per MCO 5351.1. The MCO states that a "COSC representative will utilize the Training for Resilience Checklist in Appendix E to assist commanders in building resilience and improving warfighting capability" (USMC, 2013, p. 1-2). Furthermore, the use of this checklist is accounted for by the inspector general during a commanding general's inspection when the inspector asks: "Does the unit include the COSC representative in the planning, execution and review process for training and operations; and is the Training for Resilience Checklist utilized?" as stated in the current corresponding functional area checklist (USMC, 2018, p. 1). Just because the organization ensures that units are adhering to the MCO by using the mandated resiliency training checklist, or process, does not prove that the documented training events actually increase resiliency within the unit.

Both Marine Corps references, and corresponding checklists, highlight the fact that Marine Corps leaders value the idea of enhancing resilience; however, the Corps lacks the appropriate means of assessing whether the intended training does enhance resilience. Furthermore, both references define resilience as a standalone term rather than recognizing its unique relationship with the organization. This proves the Corps' unwavering views on resilience as a process, depicted via both checklists, but offers Marine Corps stakeholders an opportunity to advance the organization's relationship with the concept.

e. Improvise, Adapt, Overcome

Researchers Fosher et al. were appointed by the assistant commandant of the Marine Corps to address the first priority of the 35th Commandant's Planning Guidance of institutionalizing resiliency training (USMC, 2010a). Their research and cultural findings relating resilience to the Marine Corps are:

> Resilience isn't a quality or a trait, nor is it a quantity like gas in a tank, that can be used up. Our research shows that when Marines are trying to live with and manage stress, it's about doing something: they figure things out, learn how, get taught how to, or copy how to deal with things. Marines don't pre-posses a physical or psychological trait or quantity called resilience. Instead they acquire strategies and concepts from others or on their own, that they can then put into practice… Resilience then is an action, finding balanced ways to live in stress (Fosher et al., 2013, p. 54).

This descriptive relationship between resilience and the culture of the Marine Corps offers valuable insight on training programs that can capitalize on building resilience. Of note, this excerpt was taken from research that was published the same year as the current MCO 5351.1, which defines resilience as a process vice an action as denoted by Fosher et al. Furthermore, the MCTP 3-30E Combat Operation Stress Control is a Marine Corps leadership publication that acts as a tool in strengthening the combat readiness of the unit (USMC, 2016b). The MCTP 3-30E defines resilience the same as MCO 5351.1 of 2013 but suggests that leaders must "develop training that is tough and realistic enough to build resilience" (USMC, p. 1-17). Therefore, the responsibility for building resilience within a unit falls on the leadership therein. Notably, both references offer a projected method of assessing the presence of resilience in future Marine training events. Appendix B of this thesis is the checklist used by appointed OSCAR team-Marines to validate the potential for future Marine training to enhance resiliency within a unit (USMC). The checklist gauges whether the intended training will assist commanders in building resilience prior to a deployment via checking off each box within the checklist. Of note, this checklist only evaluates the potential of resilience impact in training events and not individual Marines. Furthermore, the checklist does not gauge the effectiveness of building resilience before, during, or after the training event.

E. CONCLUSION

This chapter covers various academic and military studies that outline the complexity of the concept of resilience and the multiple factors that influence it. Although the literature lacks empirical evidence, a common theme found argues against the idea that human resilience is a process as outlined in current Marine Corps policy. The next chapter covers the data and methods of answering the research questions of this thesis.

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IV. DATA AND METHODOLOGY

> Not everything that can be counted counts, and not everything that counts can be counted
>
> —William Bruce Cameron

A. OVERVIEW

The methodology of this thesis aims to statistically and thematically analyze the collected data to help address each research question herein. Surveys were disseminated to solicit quantitative and qualitative data to provide insight on answering each specific question. The surveys were comprised of two resiliency scales, various-basic demographic data, MCMAP data, and open-ended questions. The two resiliency scales are the Brief Resilience Scale (BRS) and the resiliency scale from the Psychological Capital Questionnaire (PCQ). Of note, the resiliency scale used with the PCQ will be denoted throughout this thesis as PCQ(r). Detailed analysis will compare mean-level of resiliency within each group of Marines against two resiliency scales. The surveys were distributed to active-duty Marines serving in the active component of the Fleet Marine Force (FMF). There were three separate sub-populations of Marines targeted to take the surveys: A random group of Marines known as the Control group, Marines that serve(d) as an MAIT, and MAIT course 3-19 students. The Control and MAIT groups received the survey labeled Appendix C of this thesis. The MAIT course 3-19 students received the survey labeled Appendix D of this thesis. In addition to the surveys, eight interviews were conducted to gain a deeper understanding of how resilience is perceived by Marines, and if there are unmeasurable connections between resilience and the MCMAP. An example of the interview is provided as Appendix E of this thesis.

A basic overview of the research questions outlines the foundation of this thesis's focus and provides reference points for how each question will be quantitatively and/or qualitatively addressed:

Primary Question

How does the Marine Corps define resilience?

Secondary Question 1

How does the Marine Corps assess resilience?

Secondary Question 2

How does the Marine Corps enhance resilience?

Secondary Question 3

Does the MCMAP enhance individual resilience?

B. DATA

This section will describe how each surveyed population was selected and how their results will contribute to answering the corresponding research question. The surveys and interviews used in this thesis will also be covered in detail while the findings highlight the importance of each.

1. Control Group

The Control group was comprised of Marines randomly selected based on their rank distribution as it pertains to the rank distribution of the entire Marine Corps. A total of 700 Marines were randomly selected and asked to voluntarily participate in the study. Of those 700, 59 Marines completed the survey, and thus made up the Control group. The variables, and their proportions relative to their corresponding group, used during the statistical analysis will be defined in Chapter V.

2. MAIT (Treated) Group

An additional 700 Marines who have earned the Free MOS (FMOS) 0917 (MAIT) were also randomly selected and asked to voluntarily participate in the survey. Of those 700, 116 Marines completed the survey. This thesis considers this group the MAIT group, a group which represents Marines who have reached the pinnacle of the MCMAP by

gaining the 0917 certification. Of note, the Marines from this group are believed to have received the most treatment from the MCMAP and will provide insight on their perception of resiliency relative to other groups.

3. MAIT Student Group

Marine Corps students from the MAIT course 3-19 made up the last group of Marines surveyed. An initial intent of this thesis strove to analyze any immediate effects of the MAIT course at the Martial Arts Center of Excellence aboard Marine Corps Base Quantico, VA by gaining longitudinal data. This would have been accomplished by having the students take the same survey twice, at the beginning and at the end of the MAIT course. In doing so, the survey results would offer Marine Corps leadership an opportunity to recognize any immediate effects of attending the MAIT course as it pertains to enhancing individual resiliency. A total of 17 Marines volunteered to complete the pre-survey. Of the 17 Marines, three voluntarily completed the post-course survey. Of note, the post-course surveys were offered once the Marines returned to their parent command. This would offer realistic feedback from their parent command given the new perspective on resiliency gained at the MAIT course. However, the population size of the MAIT course constrained the research from offering realistic insight that could influence Marine Corps policy.

4. Surveys and Interviews

The quantitative data collected in this thesis established for comparative analysis a baseline of average resiliency associated with each group of Marines. The methods of assessment that will help gather insight on responding Marines' level of resilience are the BRS and PCQ(r). The BRS consisted of questions regarding resilience as denoted by "bouncing back" from adversity or hardship. The BRS was built from a five-point Likert scale that asked Marines to respond to the questions if they: (1) strongly disagree (2) somewhat disagree (3) neutral (4) somewhat agree (5) strongly agree. Researchers Windle et al. (2011) deemed the BRS as one of the best and highly recommended methods of evaluating a person's level of resilience. Authors Smith et al. (2008) created the BRS scoring system of "Low" (1.00 - 2.99), "Normal" (3.00 - 4.30), "High" (4.31 - 5.00), and

subsequently appointed the median score of 3.70 to the BRS, that was derived from a study containing 844 participants. This BRS scoring system was applied to the entire Marine population surveyed to gain insight on the average level of Marine resiliency relative to the 844 participants previously surveyed. To gain similar insight the same will be done for each subpopulation of Marines as well. This analysis will help identify any difference between average resiliency levels found in previous research and the uniqueness of the Marine Corps. Furthermore, if the results are found to be statistically significantly, then that may suggest that this scale is suitable for the culture of the Marine Corps. This may encourage Marine Corps stakeholders to further validate and consider institutionalizing it as a leadership/organizational manpower tool.

The second resiliency scale, from the PCQ, consisted of questions regarding resilience, which is defined by Linley et al. (2010) as "the developable capacity to rebound or bounce back from adversity, conflict, and failure or even positive events, progress, and increased responsibility" (p. 583). The PCQ(r) is a six-point Likert scale; however, this thesis transferred the PCQ(r) to a five-point Likert scale to match the BRS five-point scale because it offered easier comparability when analyzing averages. The PCQ(r) does not offer a resiliency scale average like the BRS did, thus the same average of 3.7 will be assumed for the PCQ(r). Furthermore, the same scoring system used in the BRS of "Low" (1.00 - 2.99), "Normal" (3.00 - 4.30), "High" (4.31 - 5.00) will also be used as a reference for the PCQ resiliency scale. The purpose for using two resiliency scales is to attempt to validate the results from one scale relative to the results from the other. This may offer more insight on the average level of resilience when comparing the culture of the Marine Corps to previous researched cultures. Of note, all Marines were asked to provide certain demographic data such as gender, rank, marital status, dependents' status, current MCMAP belt level, and how many hours a month they practiced the MCMAP. Of note, the MAIT 3-19 students were the only group that administered the full PCQ to draw deeper insight on the effects of the program.

In addition to the surveys, five active-duty and three retired Marines volunteered to participate in this research via interviews. The participants were hand-selected based off their experiences in the Marine Corps and their investment in the MCMAP, if applicable.

Significant trends that were identified throughout the analysis will be reported in the qualitative findings in the next chapter.

a. Variables

Table 1 offers descriptive characteristics of all variables used in the analysis while also showing the proportion represented within each group. The names of variable used during the statistical analysis are outlined on the left side of Table 1. The column labeled "All Marines" entails the entire population of 192 Marines surveyed. The columns labeled, "Control," "MAIT," and "MAIT Student" are the groups described earlier in this chapter. The numbers represent the proportion of the variable relative to the group in percentages. For example, the top left number depicts that 93.23% of the "All Marines" group are male, which leaves the remaining 6.77% as female. Of note, all percentages are held to the one-hundredths place. The remaining variables are defined as follows: "Married" is a binary variable where a value of 1 represents a married Marine and a 0 represents a single Marine. The variable "Dependents" is binary, where a value of 1 represents a Marine who has dependents other than a spouse, and a 0 represents anything otherwise. The set of variables such as, "NCO" through "Field_Grade" represent rank groups for the Marines and are labeled sequentially 1 through 5. Variables such as, "Tan" through "MAIT" represent the MCMAP belt level a Marine possessed at the time of taking the survey and are labeled sequentially by numbers 1 through 9. The variable "Sustain" represents the average number of hours a Marine practices the MCMAP per month given the values following. The values are, "Sustain=0" signifies that the Marine does not practice the MCMAP at all and will return a value of 0. Likewise, the variable "Sustain≤10" signifies that the Marine practices the program for 10 hours or less per month and will return a value of 1. The last variable "Sustain≥10" represents Marines that practice the program for 10 hours or more per month and will return a value of 2. The bottom two rows represent the population proportion and population total for each group column.

Table 1. Descriptive Characteristics (in %)

	All Marines	Control	MAIT	MAIT Student
Male	93.23	84.75	97.41	94.12
Married	76.04	71.19	82.76	47.06
Dependents	63.02	54.24	73.28	23.53
NCO	31.77	40.68	19.83	82.35
SNCO	58.33	40.68	73.28	17.65
C/WO	04.69	06.78	04.31	-
Company_Grade	04.69	10.17	02.59	-
Field_Grade	00.52	01.69	-	-
Tan	01.04	03.39	-	-
Gray	04.17	13.56	-	-
Green	06.25	20.34	-	-
Brown	06.25	20.34	-	-
Black	10.42	33.90	-	-
Green_MAI	-	-	-	-
Brown_MAI	01.56	01.69	-	11.76
Black_MAI	09.90	06.78	-	88.24
MAIT	60.42	-	100	-
Sustain=0	26.04	61.02	12.07	-
Sustain≤10	30.73	32.20	33.62	05.88
Sustain>10	43.23	06.78	54.31	94.12
Observations (%)	100	30.73	60.42	08.85
Total (#)	192	59	116	17

C. METHODOLOGY

To address the primary research question of this thesis: *How does the Marine Corps define resilience,* both the surveys and the interview questionnaire solicit the respondents to provide their personal definition of resilience as it pertains to *being* a United States Marine. Gathering qualitative data from the research participants' feedback will help address the premise of this thesis by uncovering necessary intangible insight on the culture's current perspective of the concept of resilience. This feedback will also disclose if the participant's perception of resilience aligns with the current definition outlined in both the MCO 5351.1 and the MCTP 3-30E. If the majority of answers differ from the shared definition of resilience, then this may suggest that the current definition is not culturally relatable, or it is not being effectively taught via current training methods. Only the interview questionnaire, given as Appendix E of this thesis, inquires what current training methods the Marine Corps uses to assess individual resilience to help answer Secondary Question 1: *How does the Marine Corps assess resilience?* These open-ended questions will help gain insight on the concept of resilience within a specific culture not relative to a specific definition as recommended by Almedom et al. (2015) in the literature review. Additional questions from the interview questionnaire request feedback concerning *if* and *how* the Marine Corps currently enhances individual resiliency. The feedback gained from the interview questions will provide cultural insight on: *What specific Marine Corps programs promote Marines' resiliency, what an increase in individual resilience can do for the Marine Corps* and *does the MCMAP help build individual resiliency* as stated in the MCMAP MCO 1500.59A? The participants' answers will draw attention to current Marine Corps programs that are believed to enhance individual resiliency and help answer the secondary question, *how does the Marine Corps enhance resilience?* Furthermore, both the surveys and interviews fielded open-ended questions to understand if the respondents believe that the MCMAP enhances individual resiliency and *why*. Responses to all MCMAP-related questions will help answer Secondary Question 3: *Does the MCMAP enhance individual resilience?* In summation, the respondents' feedback will help draw a cultural connection among the concept of resilience, the Marine Corps, and the MCMAP.

The purpose of using quantitative analysis in this research is to help answer questions regarding if the MCMAP enhances individual resiliency as stated in MCO 1500.59A. This thesis hypothesized that there is a relationship between the MCMAP and an increase in individual resiliency due to more time invested in the MCMAP, given the definitions provided by the implemented resiliency scales. If this research can show positive correlation between the program and a heightened level of individual resiliency, then further research may be able to statistically prove that the MCMAP causes Marines to become more resilient. Showing empirical evidence that suggests the MCMAP increases individual resiliency through time-series data would offer an opportunity to influence current policy to incentivize the MCMAP or revise any restrictions. Of note, this thesis did not have the appropriate amount of time to gather data needed to provide empirical evidence that the MCMAP enhances individual resiliency. However, this research will provide insight on the average level of resiliency with respect to a specific belt level, thus drawing attention to the amount of time a Marine invests in the program and their corresponding level of resilience at the time of the survey. The following methods are designed to provide additional intuition towards answering the research questions.

a. Method 1

The first method used in the analysis is a difference-in-means that will compare the average level of resilience for each group of Marines against the average level of resilience of non-Marine cultures found through previous research. Both the BRS and PCQ(r) scales will be used to answer the corresponding research question in this method. The findings of this method will suggest if Marines are more resilient than non-Marine cultures who were previously studied and will identify any difference in the average level of resilience among each group of Marines.

b. Method 2

Method 2 will use contingency tables to statistically analyze the quantitative survey data gained during this research. The contingency table will outline how the survey results from select Marine groups will interact with the BRS levels of Low, Normal, and High that

were previously mentioned. The outcome of this method will help draw suggestions towards addressing the question *Does the MCMAP enhance individual resilience?* The results may also offer the Marine Corps an opportunity to consider one of the scales used in this research as a future tool for Marine leaders. Leaders who use the tool would be able to gain a better understanding of Marine resilience within their Marines and respective units. This prospective approach recognizes that the Marine Corps currently does not have a method to assess individual resilience, which is associated with the research question: *How does the Marine Corps assess resilience?* The subliminal purpose of this method is to recognize a palpable statistical solution to that problem, which will give the Marine Corps a simple manpower decision tool for unit leaders.

c. Method 3

This method will mimic the previous method with the exception of changing the BRS levels from Low, Normal, and High to Not High and High. This will further highlight which group of select Marines has the largest proportion within the *High* level of resilience relative to those not returning *High* levels of resiliency.

d. Method 4

The fourth method attempts to validate the outcomes of methods 2 and 3 by applying the same Low, Normal, and High levels from the BRS to the PCQ resiliency scale. The findings will suggest if the Marine Corps culture can relate to the PCQ(r) scale given the differing definition of resilience. If both scales are statistically significant, then the Marine Corps will potentially have two methods to choose from for assessing individual resilience. Of note, the results from methods 2, 3, and 4 will be displayed via mosaic plot, for a visual representation of the data. Of note, all contingency tables will report Pearson's ChiSquare test and Likelihood Ratio ChiSquare test for statistical validation. These tests will validate that the level of resiliency, given that the specific resiliency scale, is independent and properly interacts with each group of selected Marines.

e. Method 5

This method will use linear regression analysis to determine if there is correlation between a Marine's average level of resiliency via - the BRS and PCQ(r) - and the MCMAP while holding all demographic variables gained from the survey constant. Models (1) and (2) contain the variable "Treatment," which represents the Marines from the MAIT (treatment) group relative to the Control group. The coefficients returned from the regression models will show a value illustrating if, on average, the treatment group returns a different level of resilience - given the specific scale used in the model. Model (1) regresses the treatment group on the BRS scale. Model (2) regresses the treatment group on the PCQ resiliency scale. Model (3) regresses all demographic data provided to identify variables that return statistical significance albeit associated with higher levels of resiliency for each scale. The regression models are as follows.

$$\boldsymbol{Y(BRS) = \alpha + \beta(Treatment) + \varepsilon} \quad (\mathbf{1})$$

$$\boldsymbol{Y(PCQr) = \alpha + \beta(Treatment) + \varepsilon} \quad (\mathbf{2})$$

$$\boldsymbol{Y_i = \alpha + \beta(X)_i + \varepsilon_i} \quad (\mathbf{3})$$

- Limitations of Data and Methodology

The data collected throughout this thesis is presented with some limitations. Any surveys responses and corresponding insights gained are subject to human error. This research also considers the strong possibility that other variables, not captured in the surveys, could explain a Marine's average level of resilience. There is no way to tell what a Marine's average level of resilience was earlier in their career, or before they entered the Marine Corps, without previous survey data. For example, there is a possibility that a Marine who reported a high level of resiliency in this study already possessed a high level of resiliency as it pertains to the BRS and PCQ(r). Furthermore, the average level of resiliency results are based off definitions that are not aligned with the current definition of resilience in the Navy and Marine Corps. Lastly, Marines, being a part of one of the U.S.'s greatest fighting organizations, may be more inclined to *want* to be resilient and

therefore provide answers to the survey to gain the desired outcome. This is commonly referred to as the Hawthorne effect, where Fernald, D. et al. (2012) stated that "study subjects' behavior or study results are altered by the subjects' awareness that they are being studied or that they received additional attention" (p. 1). The legacy of the Marines may cause bias because the organization breeds victory and strength through common mantras like *death before dishonor* and *Marines never fail* (Mattis and West, 2019).

D. CONCLUSION

This chapter covers the data and methodology used to answer the research questions of this thesis. Subsequently, Secondary Question 3 helps address this thesis's hypothesis that aims to prove that the MCMAP does enhance individual resiliency. This chapter also covers some limitations that may alter the analysis and findings offered throughout the next chapter.

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V. FINDINGS AND ANALYSIS

It's not what happens to you, but how you react to it that matters.

—Epictetus

A. INTRODUCTION

Whether the definition of resilience surrounds the notion of "a developable capacity to rebound" as referenced within the PCQ(r), or a person's ability to "bounce back" from adversity as associated with the BRS, the Marines show above-average results for both scales. This suggests the Marines are still a resilient force-in-readiness. This chapter offers the findings of the five methods outlined in chapter four that help address each research question.

a. Method 1

Table 2 shows average resiliency results of each group of Marines relative to the BRS and PCQ scores received from the surveys. The BRS and PCQ scales are shown on the far-left column and includes the minimum and maximum resiliency scores, and standard deviation of the findings directly below the title of the survey. The asterisk next to the PCQ(r) and BRS represents the average resiliency score found in previous research that was mentioned in the literature review. This offers a quick reference for the analysis of this research. Of note, previous research conducted by Lorenz et al. (2016) found the PCQ(r) scale average of the respondents to be 4.64 on a six-point scale, which translates to an average of 3.87 on the five-point scale used in this thesis. This group returned an average level of resilience 10 percentage-points higher than the Lorenz et al. average of 3.87. Furthermore, all groups of Marines that took the survey returned an above-average score relative to the Lorenz et al. average. Similar results were found for the BRS. Researchers Smith et al. (2008) reported an average score of 3.70 for the given population. Again, every

Marine group returned a higher average score relative to the 3.70 average. Notably, the MAIT group scored the highest average level of resiliency for both scales.

Table 2. Marine PCQ(r) and BRS Average Resiliency Levels

	All Marines	Control	MAIT (Treatment)	MAIT Student
PCQ(r)	4.35	4.27	4.42	4.15
*PCQ(r)	3.87			
Min	1.60	2.20	1.60	1.67
Max	5.00	5.00	5.00	4.83
sd	.71	.74	.68	.77
BRS	4.15	3.95	4.30	3.85
*BRS	3.70			
Min	1.00	1.00	1.33	3
Max	5.00	5.00	5.00	4.67
sd	.76	.91	.67	.55
Observations	192	59	116	17

Notes: Displays the results from the BRS and PCQ(r) scales. The minimum and maximum scores are displayed along with the standard deviation. Each row outlines the average level of resiliency score relative the corresponding group of Marines. The first column labeled "All Marines" represents the entire population of Marines who participated in the survey, and each group of Marines thereafter.

Figure 5 depicts the distribution results for the average PCQ resilience scale scores for all Marines that participated in the survey. As shown in that figure, the data is right-censored such that resiliency scores are not allowed to be higher than five.

Figure 5. Distribution of the Average PCQ Resilience Scale Survey Results of the Entire Marine Population

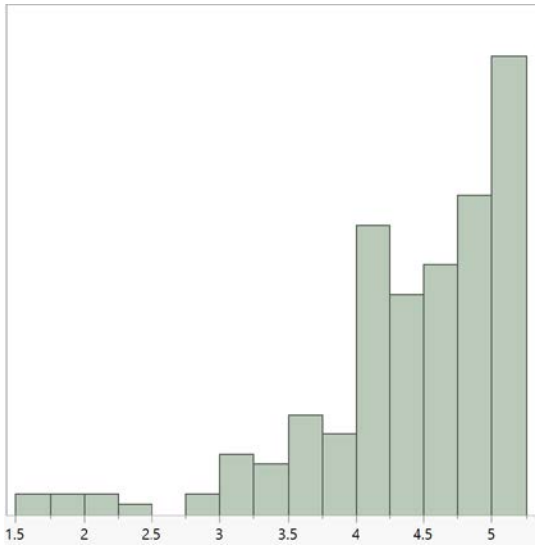
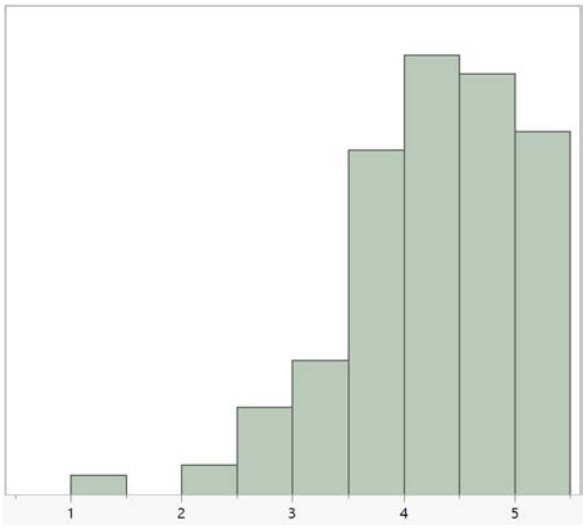


Figure 6 depicts the distribution results for the average BRS scores for all Marines that participated in the survey. The BRS distribution scale shows a more natural curve relative to the PCQ (r) distribution, which suggests greater normality in responses.

Figure 6. Distribution of the Average BRS Survey Results of the Entire Marine Population



Therefore, the findings of these distributions suggest that on average the Marine Corps is a more resilient culture relative to the previous researched cultures under the premise of the given definitions of resilience. This outcome may have been perceived as common sense given the long and illustrious history of the Marine Corps; however, this theory has never been analyzed in this manner before.

The MAIT students also took the entire PCQ, which contained hope, optimism, and self-efficacy scales in addition to the PCQ resiliency scale. Similar to the scores received for the average resiliency scales, the MAIT students scored above average for the full PCQ, returning an overall average score of 4.17 out of a five-point Likert scale. Of note, this score is not relative to any other research; nevertheless, assuming that any score above 4.00 is above average, then 4.17 is considered above average. In addition to taking the full PCQ, the MAIT students also completed the Protean Career Orientation and returned another high average score of 4.76 on the five-point Likert scale. The high average levels for both the PCQ and Protean Career Orientation scales justify researchers' DiRenzo et al. (2015) statement that the "[protean career orientation] was positively related to work-life balance through heightened career planning, the accumulation of social and psychological capital, and enhanced perceptions of employability" (p. 29). Given that the sample size of the MAIT student population is relatively small, no conclusions can be made regarding correlation amongst the Marine Corps, or the MCMAP, and the full PCQ or the Protean Career Orientation scales. It is worth mentioning that perhaps the reason for the high average scores may be a result from the uniqueness of the Marine Corps culture, or the type of individuals the Marine Corps attracts.

Interviews conducted during this research helped uncover some distinct reasons why the Marine Corps is a unique culture, and, even though it falls under the Department of the Navy, the Corps has maintained its unique posture for over 240 years. One interview question asked Marines if they believe that the Marine Corps is a resilient force, and if so, provide reasons why. According to a Marine captain (interview with author, October 1, 2019) [the Marines have a] "history of performing under poor conditions and providing winning results." This answer evokes the notion that the history of the Marine Corps influences how Marines act today. The captain's next sentence reads, "[Marine Corps]

history does not define who/what we are today, but it influences [Marines] today and sets a standard and culture of resilience" (Marine captain (a), interview with author). Concurrently, a subsequent Marine captain answered:

> Yes. By design, the Marine Corps must be a resilient force in order to successfully execute the often austere and challenging missions assigned by the Commander in Chief. Under such conditions, obstacles and setbacks occur constantly; therefore, the ability to quickly recover, adapt, and then continue the mission represents a critically important attribute to develop and maintain throughout the force. Examples of Marines' resiliency can be found throughout the Corps' history in *every clime and place* (Marine captain (b), interview with author, October 6, 2019).

This short answer highlights many unique aspects of the Marine Corps. For example, this Marine captain exclaimed that the Marine Corps *must* be a resilient force in order to be successful because of the adverse nature of the missions the Marine Corps is tasked with. It was also mentioned that Marine resilience as an *ability* to respond to the adverse nature of a Marine's vocation. Lastly, both Marine captains commented that the resilient history of the Marine Corps is an example for present and future Marines to live up to. Greitens (2105) stated, "as long as we can read, we have access to models from all of recorded history: biographies that are reservoirs of insight, stories of human tragedy and human possibilities (p. 78). For these reasons, the commandant's professional reading list is a powerful yet underutilized tool for strengthening the Marine Corps culture. If Marines are not encouraged or further incentivized to read about the history of the Marine Corps, then it is highly possible they may be limiting their *Marine Corps intellectual capital*, or *Marine capital*, by negating the various historical cultural models.

Another question from the interview asked, *how does resilience pose a unique relationship with the Marine Corps compared to the other branches of service?* A staff noncommissioned officer (interview with author, October 9, 2019) responded to the question by highlighting that "Marines are conditioned from bootcamp to thrive in unfavorable situations." This statement suggests that the unique capacity of the Marine Corps starts at the beginning of every enlisted Marine's career. Interestingly, Marine Corps bootcamp is the longest indoctrination process of all the branches of service. Marine Corps bootcamp especially focuses on instilling discipline and spirit in every prospective Marine

as stated in the Marine Corps Senior Drill Instructor speech: “Discipline and spirit are the hallmarks of a Marine” (readable, n.d.). This excerpt is one line of a speech that every enlisted recruit receives the day they are introduced to their team of drill instructors. Discipline and spirit are most likely tested through the many trials and tribulations endured throughout Marine Corps bootcamp. A field grade officer (interview with author, November 4, 2019) answered the same question by stating that, “Marines are challenged at all levels within the institution and arguably with more aggression and focus than the other services.” This comment bolsters the relationship between resilience and Marine Corps beyond the confinements of bootcamp by recognizing the continuous challenges associated with being a Marine relative to other services. Another Marine captain stated that, “the Marine Corps has had to consistently validate its worth [to all stakeholders]” (interview with author, October 1, 2019). This captain referred to the Marine Corps’ struggle of staying relevant, which was famously coined by General Krulak in his book *First to Fight*, where he underlines the realistic recognition that America does not need a Marine Corps because it already has an Army and a Navy (1984). Part of this thesis argues that the resilient actions of past Marines has sustained the high value of the Marine Corps with the American people.

A follow-on interview question asked *what makes a Marine resilient?* One Marine captain (interview with author, October 6, 2019) mentioned Marine Corps core values as a source of what makes a Marine resilient. Two other respondents stated that Marine Corps training events are a source for what makes Marines resilient. Interestingly, a Marine Corps lieutenant colonel wrote in response to this question, “[Marine Corps] experience, education, training, being recognized and welcomed within a team/unit, and aggressively challenged in real-world/live situations” (interview with author, November 4, 2019). These responses highlight many determinants that align with the literature review contained in this thesis. One example is that the MCMAP MCO (2019) focuses on tough, realistic training as a key component of promoting resiliency in Marines. More examples are Dr. Tortorello’s (2014) view on training as published in his *Gazette* article, and Greitens’ (2015) belief on the value of training resiliency rather than simply educating people on the notion of resiliency.

The responses to the interview questions help propose that the Marine Corps culture is unique compared to other branches of service due to entry-level training, Marine Corps core values, and the Corps' illustrious and resilient history. Even though the U.S. Navy shares the same core values as the Marine Corps, the mission of the Marine Corps, and high standards of spirit and discipline, set the Corps apart from its sister branch of service. Therefore, these answers help validate the need for a separate definition of resilience in the Marine Corps.

B. PRIMARY RESEARCH QUESTION: *HOW DOES THE MARINE CORPS DEFINE RESILIENCE*?

By recognizing that people within an organization drive the culture and not the other way around, both surveys and interviews solicited responses to shed light on how Marines perceive the concept of Marine resilience. Policy can infer that Marines perceive resilience in a specific manner such as a process, but part of this thesis aims to uncover how Marines perceive resilience relative to the current policy's definition.

A total of 192 Marines participated in the survey; 172 of those 192 provided their perspective on resilience as it pertains to *being* a United States Marine. The research found that three out of the 172 responses associated the word *process* with their definition of resilience. This amounts to less than two percent of the respondents perceive resilience as a "*process* of preparing for, recovering from, and adjusting to life in the face of stress, adversity, trauma, or tragedy" (USMC, 2016b, p. A-1). Interestingly, 127 of the 172 Marines who also provided definitions in the survey view the concept of Marine resilience as an *ability*. This amounts to 74% of Marines surveyed perceive the concept of Marine resilience as a developable ability vice a process. Furthermore, six of the eight interviewees also perceive the concept of Marine resilience as an ability. This notes that the majority of respondents do not view the concept of resilience in the manner in which it is being taught through current Marine Corps tactical publications.

- Notable definitions of Marine resilience provided from survey respondents:

  Resilience is the effective perseverance, durability, and determination a Marine has in order to accomplish his goals, achieve mission success, and maintain a high discipline standard (Marine (a), personal communication, November 8, 2019).

  The ability to learn and grow from difficult situations, although this may take some time (Marine (b), personal communication, November 8, 2019).

  The ability to perceive and respond to stress and adversity with a positive mental attitude, and understanding that adversity is inevitable and an opportunity to grow. Resilience, specifically, is being calm in times when others are not and projecting the confidence that brings others back to performing. Personal and professional resilience are more alike than different, and seeking opportunities to embrace adversity is a proven way to enhance resiliency (Marine (c), personal communication, November 8, 2019).

- Notable definitions of Marine resilience provided from the interviewees:

  A form of toughness that enables one to quickly recover from obstacles and/ or setback he/she encounters in life (Marine captain (a), interview with author, October 6, 2019).

  The ability to sustain adequate performance during and after experiencing adversity. Performance is defined here as your mental, physical, and emotional outputs associated with both personal and professional responsibilities. Adversity is any challenging event that stresses your abilities and the systems you've put in place to function on a daily basis, i.e., personal relationships, teams, or habits (Marine captain (b), interview with author, October 1, 2019).

  Leaving your comfort zone, leaving your colleagues and [coming] back without problems (Marine general officer, interview with author, October 8, 2019).

  [The] ability to overcome stressors (internal/external) without loss of quality of your intended task (Marine gunnery sergeant, interview with author, October 9, 2019).

  The ability to effectively cope with adversity (Marine lieutenant colonel (a) interview with author, October 31, 2019).

> The power of the human will to overcome any and all challenges (retired Marine lieutenant colonel (b), interview with author, October 31, 2019).

> The ability to, when hit with adversity, bounce back/recover and continue moving forward towards mission accomplishment/success (Marine lieutenant colonel (c), interview with author, November 4, 2019).

These responses highlight purpose, growth, and perception as key elements of individual resilience. Purpose of achieving the mission is offered to Marines as a forcing function to grow through adversity similar to the concept of self-logotherapy coined by Dr. Viktor E. Frankl (1992), where focus remains on "the meanings to be fulfilled by the [person] in his future" (p. 98). Growth is mentioned as recognition that a Marine will not return to a pre-adverse state, or they will not "bounce back" from adversity but grow through it. This also mimics Greitens' (2015) notion of resilience as a "virtue of growing through suffering" (p. 228). Perception is a powerful vehicle for resilient actions; a Marine's perception is unique because Marines deal exclusively with Marine Corps-specific situations every day. Marine Corps perceptions are crafted through the many mantras that are trademarks of the Corps. One example is recorded in an issue of *Leatherneck* that tells the story of a French officer's orders to retreat in the face of overwhelming enemy forces during World War I; "a young Marine officer responds to the French officer by shouting, 'Retreat hell, we just got here!'" (Johnston, 1947, para. 8). This Marine's response is timeless and reminds present-day Marines of the discipline and warrior spirit that can only be embodied by United States Marines.

C. SECONDARY RESEARCH QUESTION 1: *HOW DOES THE MARINE CORPS ASSESS RESILIENCE*?

The only tangible evidence found during this research acknowledging a current assessment of resilience in the Marine Corps is the checklists for Marine Corps training events, which is outlined in current Marine Corps doctrine previously discussed in this thesis. Therefore, the answer to this research questions is, the Marine Corps does not possess a method of evaluating individual Marine resilience, and therefore cannot scientifically justify that any Marine Corps programs enhance individual resiliency. The Marine Corps attempts to assess training events via the aforementioned checklists, but there

is no baseline of resiliency training to gauge if the training event increases resiliency within a Marine or unit.

This thesis aims to address this issue by using research-proven methods of evaluating individual resilience. The purpose of this is to identify a resiliency tool for consideration towards implementing it into the organization. The two methods of evaluation used were the BRS and PCQ resiliency scale. Respondents showed above-average levels of resiliency for both methods; however, the results for resiliency levels under the BRS were found statistically significant in both the contingency table analysis and linear regression Model 1. This suggests that the BRS may be an acceptable method of assessing individual resilience in the Marine Corps given the BRS definition of resilience.

Furthermore, average resiliency levels under the PCQ resiliency scale did not return statistically significant difference in either the contingency table or the linear regression denoted as Model 2. This suggests that the PCQ resiliency scale may not be an acceptable method of assessing individual resilience in the Marine Corps given the PCQ definition of resilience. Of note, the longitudinal data gathered and analyzed from the three MAIT students showed a unanimous increase in the PCQ resiliency scale at the end of the course.

One question from the interview also provided insight while addressing this research question by asking: *How can [the Marine Corps] assess a Marine's individual level of resilience?* A retired lieutenant colonel responded, "Through tough realistic training…making sure ALL Marines have mentors…they respect and trust" (interview with author, October 31, 2019). Another Marine lieutenant colonel stated, "Test/validate in live/real-world situations and incorporate within discussion groups/tactical decision games" (interview with author, November 4, 2019). A third Marine lieutenant colonel mentioned assessing individual levels of resiliency through Marine Corps training events (interview with author, October 31, 2019). A Marine captain stated, "The most available and most commonly used method is performance under stress. Both short and prolonged periods of stress in training environments provide observable information on individual resilience" (interview with author, October 1, 2019). Another Marine captain highlighted the importance of knowing the Marines you work with both at work and on liberty

(interview with author, October 6, 2019). This captain acknowledged the fact that Marines are Marines 24/7/365 and are always responsible for upholding the Marine Corps' core values. Similarly, a gunnery sergeant recognized that individual resiliency is associated with a Marine's whole lifestyle, and that work stress may impact the Marine's level of resiliency at home and vice versa (interview with author, October 9, 2019). All of these answers align with the literature mentioned throughout this thesis.

D. SECONDARY RESEARCH QUESTION 2: *HOW DOES THE MARINE CORPS ENHANCE RESILIENCE?*

This research question was only a part of the interview and was solely responsible for provided context towards addressing the research question. A Marine captain reported that, "Chaplains, UMAPIT, PFT/CFT, entry level training [that teaches] core values, leadership principles, leadership traits, formal PME, advanced MOS courses, leadership/ instructor courses, MCMAP, and MCIWS." The captain also mentioned that chaplains have the ability to enhance resilience in servicemembers if there is an active relationship among the Marines and their unit chaplain. The chaplain is a non-invasive resource where interactions are most likely initiated by the servicemember. Of note, under normal circumstances there is no policy that states interacting with a unit chaplain is mandatory outside possibly being a part of the check-in/check-out process or directed by the commanding officer. The interviewee also acknowledges that the intent of the UMAPIT is to increase resiliency but feels that the training method currently used is not accomplishing the desired outcome. The Marine Corps physical fitness tests are also mentioned as a method of enhancing resilience, which also corresponds with previously mentioned literature. Further statements mentioned that entry-level training is a Marine Corps-specific method of enhancing resilience because it instills Marine Corps core values, leadership principles, and leadership traits. From an individual perspective, the captain also identifies [induced] stress is a way the Marine Corps can impart stress-management lessons on Marines by "pushing our bodies and minds to the limits of fatigue and capabilities…" Among the answers already provided, the captain concludes by placing value on fostering relationships with trusted [Marines] and embodying the Marine Corps core values (interview with author, October 1, 2019).

A retired lieutenant colonel answered the question from an individual's perspective: "[Marines enhance resilience by] having a purpose…having a mentor…not being negative." These answers connect with Dr. Frankl's (1992) logotheory of having a purpose, and also Greitens' (2015) value of having models to learn from. The retired lieutenant colonel further mentioned that the "MCMAP, combat conditioning, and embracing and living the standard of [Marine Corps core values] …not just the words but the entire concept" (interview with author, October 31, 2019).

Another Marine lieutenant colonel attacks the questions by answering:

> [Through] tough, realistic training. Understanding that levels of resilience differ [between Marines], teaching that, and then deliberately teaching resilience skills at all levels and echelons [of the Marine Corps]. [The Marine Corps] could also benefit greatly from long term, longitudinal, detailed studies on resilience and resilience over time. Resilience is built somewhat unevenly. A specific program focused solely on resilience is unlikely to be effective (interview with author, October 31, 2019).

This excerpt connects with the literature regarding tough and realistic training as an appropriate method of enhancing individual resiliency. Furthermore, this lieutenant colonel recognizes that Marines have different levels of resilience and different needs for resiliency training, but training methods should recognize that there is variation in an individual's level of resilience relative to all others. Once this is established, then training resilience to that standard may help increase the value of the organization. Of note, the most important factor towards building resilience to this lieutenant colonel was "engaged mentorship and leadership." The strength of a social or cultural network was a heavily recognized theme throughout the literature and is also a strong part of the Marine Corps culture. The final interviewee also offered that the use of longitudinal data would help the Marine Corps further mitigate confusion surrounding the loose use of the concept of resilience (interview with author, October 31, 2019). This comment specifically addresses the universal use of the word resilience throughout policy.

A retired Marine general officer addressed the question by mentioning that resiliency training should "start in SOI, not in bootcamp. [In bootcamp, Marines] are just reacting. It has to be a continuous process. [The Marine Corps] cannot talk about resiliency

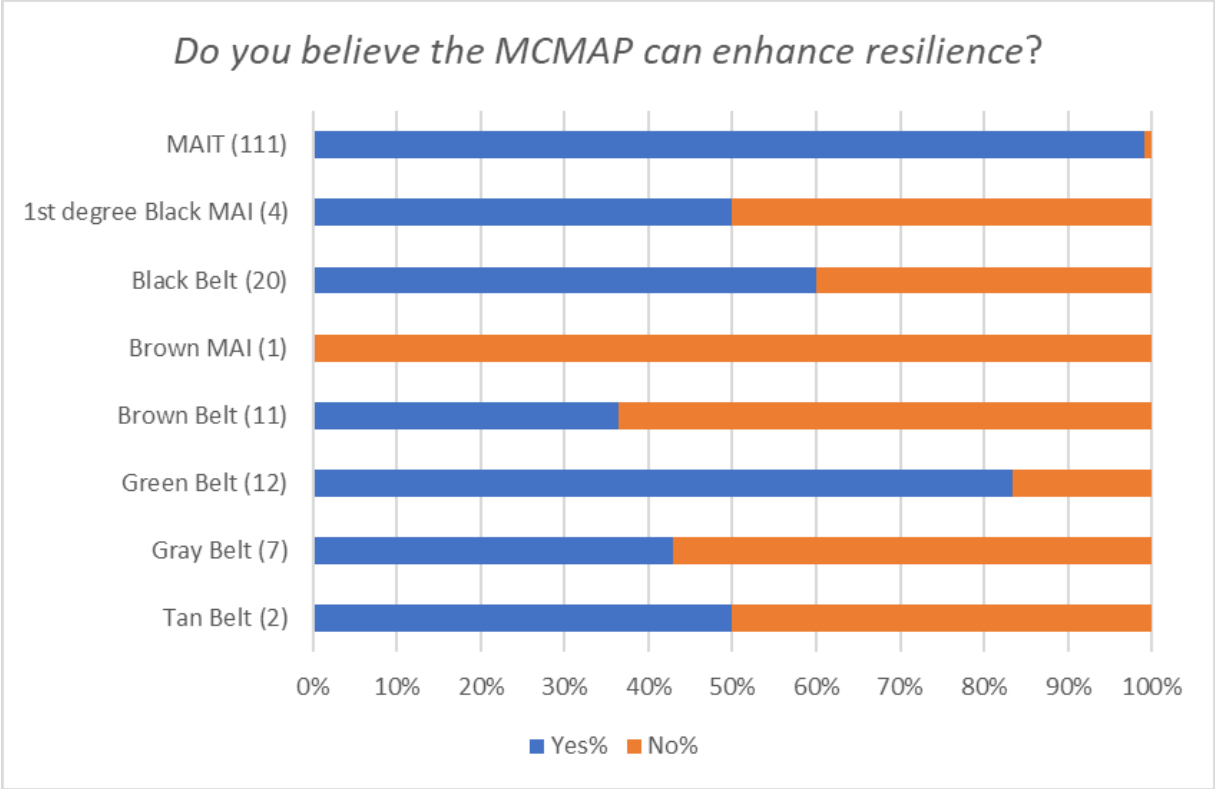
when [Marines] don't understand how the body works, how the mind works" (interview with author, October 8, 2019).

Another Marine lieutenant colonel exclaimed in response to the question that "[Marines] must continue challenging [themselves] by extending outside of [their] comfort zone." The lieutenant colonel also mentioned the MCMAP, UMAPIT, and unit-level training current programs that promote resilience (interview with author, November 4, 2019).

E. SECONDARY RESEARCH QUESTION 3: *DOES THE MCMAP ENHANCE INDIVIDUAL RESILIENCE?*

To address this question directly, the survey solicited respondents to answer this research question and then encouraged Marines to provide reasons for their answers. Survey feedback found that out of the 91 respondents in the MAIT group who provided feedback to this questions, 90 believed that the MCMAP can enhance individual resilience. That amounts to 99% of those responding believed that the MCMAP has the potential to enhance individual resiliency. Of note, all the Marines within this group certified as MAITs prior to the current MCMAP MCO, which revised the intent of the program to "enhance individual resiliency of individual Marines…" (USMC, 2019(b), p. 2). Concurrently, survey feedback also found that out of the 57 Marines in the Control group who provided feedback to this question, 32 believed that the MCMAP can enhance individual resilience. This amounts to 56% of the respondents believing that the MCMAP has the potential to enhance individual resiliency. Conversely, 44% of the respondents believe the opposite. Figure 7 outlines the proportion of survey respondents who believed the MCMAP can enhance individual resilience. The figure is segregated by the respondents' MCMAP belt level at the time of the survey. The total number of Marines within each group is annotated within the parentheses next to the title of the corresponding belt level.

Figure 7. Survey Results for the Control Group



a. Method 2

Method 2 attempts to bring intuition to address the research question by using contingency tables as a method of statistical analysis. Figure 8 is the first contingency table used in this method. It captures the proportion of Marines within the original survey groups denoted by the variables - Control, MAIT, and MAIT_Students–and how the groups fit within the BRS levels of Low, Normal, and High.

(1) How to Read a Contingency Table

To understand the contingency table, refer to Figure 8. The box that corresponds with Group_Name “Control” and “High” BRS; the numbers within this box from top to bottom are 25 and 42.37. The number 25 represents the total count of Marines from the Control group that are considered to have a High level of resiliency under the BRS. Next,

the number 42.37 represents the row percentage of each categorical variables relative to the entire row. Therefore, 42.37 percent of Marines in the Control group are considered to have a High level of resilience relative to the other Marines in the Control group. The far-right column labeled “Total” contains the total count of Marines in the group. The bottom row titled “Total” contains the total count of Marines in each level of the resiliency scale. Finally, the section following the contingency table provides the statistical test known as a ChiSquare test. Specifically addressing the first contingency table, the Prob>Chisq shows the probability that a ChiSquare number, with four degrees of freedom, can be greater or less than 16.559 - for the Likelihood Ratio. As a result, there is statistical evidence to suggest the null hypothesis cannot be accepted, which assumes that the Groups and BRS Level variables depicted in this contingency table are independent. In other words, there is reason to believe that there is some sort of relationship between the Groups and BRS Level shown in Figure 8. However, Figure 8 is not a reasonable statistical test due to the MAIT_Student group containing less than five Marines in the Low level of the BRS, which is a requirement for an acceptable ChiSquare test. Essentially this amounts to not having enough participants in this study to return significant evidence to support this method. To address this, the participants were regrouped into the MCMAP specific groups to gain further insight on the research question.

Figure 8. Contingency Table: BRS Level / Original Populations: Control, MAIT, and MAIT Students

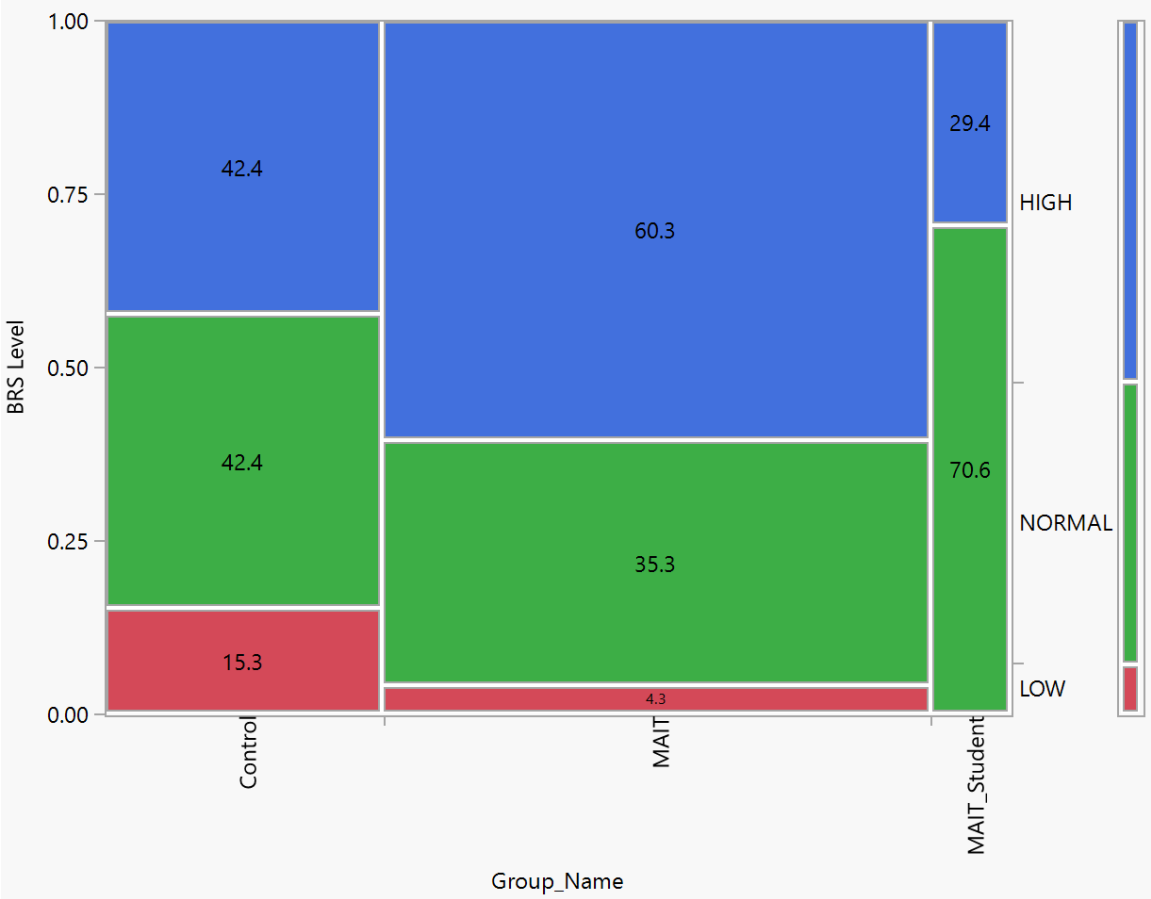
		BRS Level			
		LOW	NORMAL	HIGH	TOTAL
Group_Name	CONTROL	9	25	25	59
	Row %	15.25	42.37	42.37	
	MAIT	5	41	70	116
	Row %	4.31	35.34	60.34	
	MAIT_STUDENT	0	12	5	17
	Row %	0	70.59	29.41	
	TOTAL	14	78	14	192

Tests			
N	DF		RSquare
192	4		0.0481
Test	ChiSquare		Prob>ChiSq
Liklihood Ratio	16.559		0.0024*
Pearson	16.647		0.0023*

Notes: Displays the relationship between two sets of categorical variables. Outcomes include joint distributions and row percent of the dependent variables relative to the independent category. The Chi-Square tests the relationship between the categorical variables within the population. The null hypothesis states that the categorical variables are independent. The Likelihood ratio corresponds to the probability that the outcome will occur under the null hypothesis. $* p < 0.01$.

Figure 9 is a mosaic plot that colorfully portrays the results from the Figure 8 contingency table. The color blue represents Marines that are considered to have a High level of resilience under the BRS. Green represents Marines that are considered to have a Normal level of resilience under the BRS. Red represents Marines that are considered to have a Low level of resilience under the BRS. The numbers contained within each plot box represents the row percentage associated with the corresponding contingency table. The Mosaic Plot shows the Control group containing fewer Marines in the High level of the BRS and more Marines in the Low category of the BRS relative to the MAIT population. As previously noted, the MAIT_Student population did not have any Marines in the Low level of the BRS, and such results render this method unreliable towards gaining statistical significance.

Figure 9. Mosaic Plot: Average BRS Distribution for Marine Populations: Control, MAIT, and MAIT Students



Notably, all Marines in the MAIT_Student group were MAI's at the time they took the initial survey. Therefore, all participants were reorganized into groups: User, MAI, and MAIT, as outlined in Figure 10 to help address this issue. Figure 10 contains the second part of Method 2, which segregates the survey participants into three groups relative to their current MCMAP belt group: User, MAI, and MAIT. As previously stated, "User" represents all Marines who have earned a MCMAP belt - Tan through Black - but are not certified as an instructor of the MCMAP. The variable "MAI" represents all Marines who have earned a martial arts instructor certification under the MCMAP. The variable "MAIT" represents the entire treatment population such that those within this group have reached the highest certification within the program as martial arts instructor trainers. Of note, the MAIT group from the previous method is the same subpopulation as the MAIT group

within the Belt_Level_Group and return identical results. Figure 10 addresses the fact that all Marines in the MAIT_Student population are MAIs at the time of the initial survey, and there are also MAIs included in the Control group. As stated earlier, the Control group includes randomly selected Marines throughout the Marine Corps, which randomly included five MAIs but did not include any MAITs. Therefore, Figure 10 separates the MAIs from the Control group and found that the BRS is still a statistically significant tool for evaluating Marine resiliency. Interestingly, three Marines in the Control from Figure 8 were added to the High level of resiliency under the BRS. Furthermore, one Marine was added to the Low level and one Marine was added to the Normal level. However, reorganizing the Marines into these groups still lacked statistical insight on the data due to the MAI / Low box which only contained one Marine. The ChiSquare tests requires a minimum of five observations within each box to orchestrate a statistically significant model.

Figure 10. Contingency Table: BRS Level / Belt Level Group

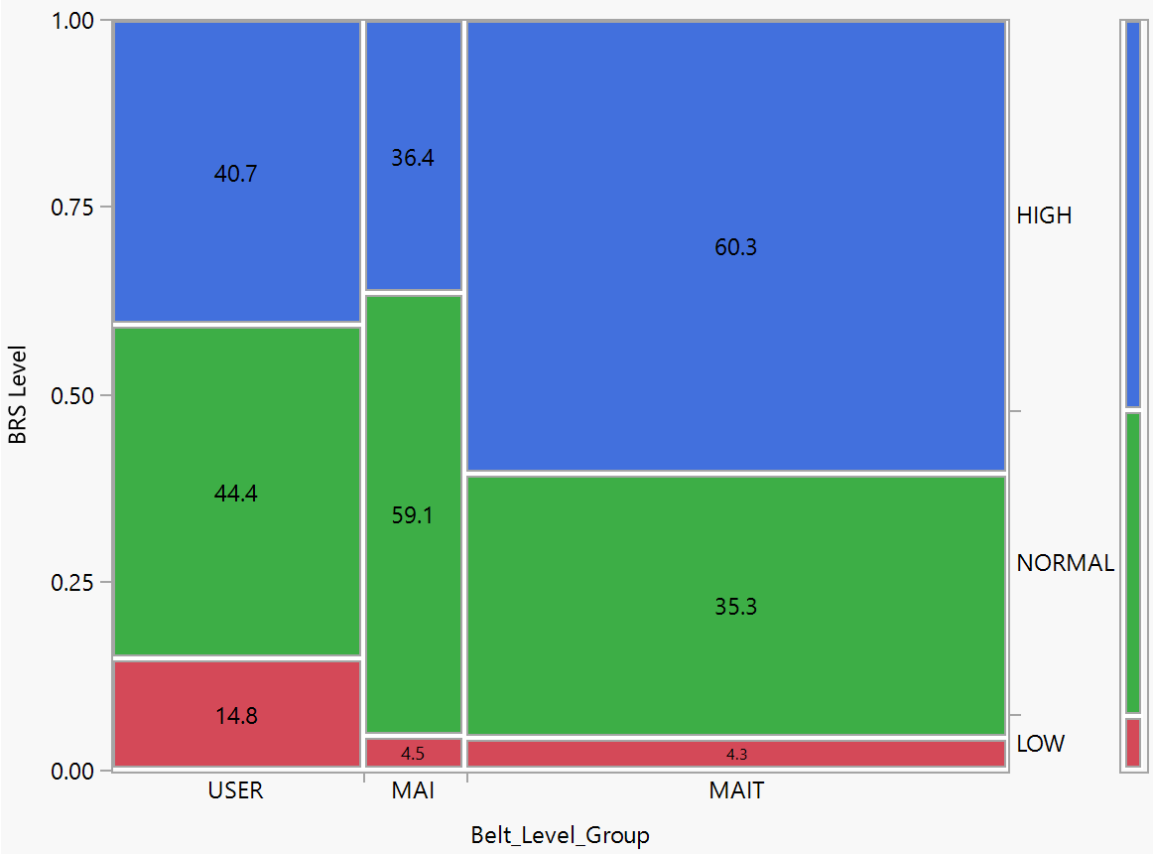
		BRS Level			
		LOW	**NORMAL**	**HIGH**	**TOTAL**
Belt_Level_Group	**USER**	8	24	22	54
	Row %	14.81	44.44	40.74	
	MAI	1	13	8	22
	Row %	4.55	59.09	36.36	
	MAIT	5	41	70	116
	Row %	4.31	35.34	60.34	
	TOTAL	14	78	100	192

Tests			
N	**DF**		**RSquare**
192	4		0.0344
Test	**ChiSquare**		**Prob>ChiSq**
Liklihood Ratio	11.835		0.0186*
Pearson	12.567		0.0136*

Notes: Displays the relationship between two sets of categorical variables. Outcomes include joint distributions and row percent of the dependent variables relative to the independent category. The Chi-Square tests the relationship between the categorical variables within the population. The null hypothesis states that the categorical variables are independent. The Likelihood ratio corresponds to the probability that the outcome will occur under the null hypothesis. $* p < 0.1$.

Figure 11 is a visual representation of the results produced from the contingency table depicted as Figure 10. Notably, the MAI and User groups of Marines portray approximately the same levels of High resilience; however, the User group shows a substantially higher level of Marines that are considered to have a Low level of resilience under the BRS. Again, the MAIT group returned the highest distribution of Marines in the High level of resiliency under the BRS.

Figure 11. Mosaic Plot: Average BRS Distribution of Marines Relative to Their MCMAP Level: MAI, MAIT, and User



b. Method 3

Method 3 attempts to show the effects of the treatment on a Marine's level of resilience under the BRS, given that they earned the MAIT certification. The reference

group is the original Control group minus the five Marines with the MAI certification to compare the User belt level Marines and the MAITs. Figure 12 is the contingency table that tests the relationship between the MAIT and Control groups with the BRS levels of High and Not High (combining the Low and Normal levels previously used). The results shown in Figure 12 are statistically significant, given the BRS definition and levels: High and Not High. This method contains enough observations in each box to draw statistical conclusions by using the ChiSquare test. As a result, there is statistical evidence to suggest the null hypothesis can be rejected, which assumes that the two Groups and BRS Level variables depicted in this contingency table are independent. These finding suggest that the BRS may be a valuable tool to assess a Marine's level of resiliency. Therefore, Marine Corps leaders should consider institutionalizing this scale.

Figure 12. Contingency Table: Treatment Effect / BRS

		BRS Level H/L		
		NOT HIGH	**HIGH**	**TOTAL**
Control_Treated	**CONTROL**	32	22	54
	Row %	59.26	40.74	
	MAIT	46	70	116
	Row %	39.66	60.34	
	TOTAL	78	92	170

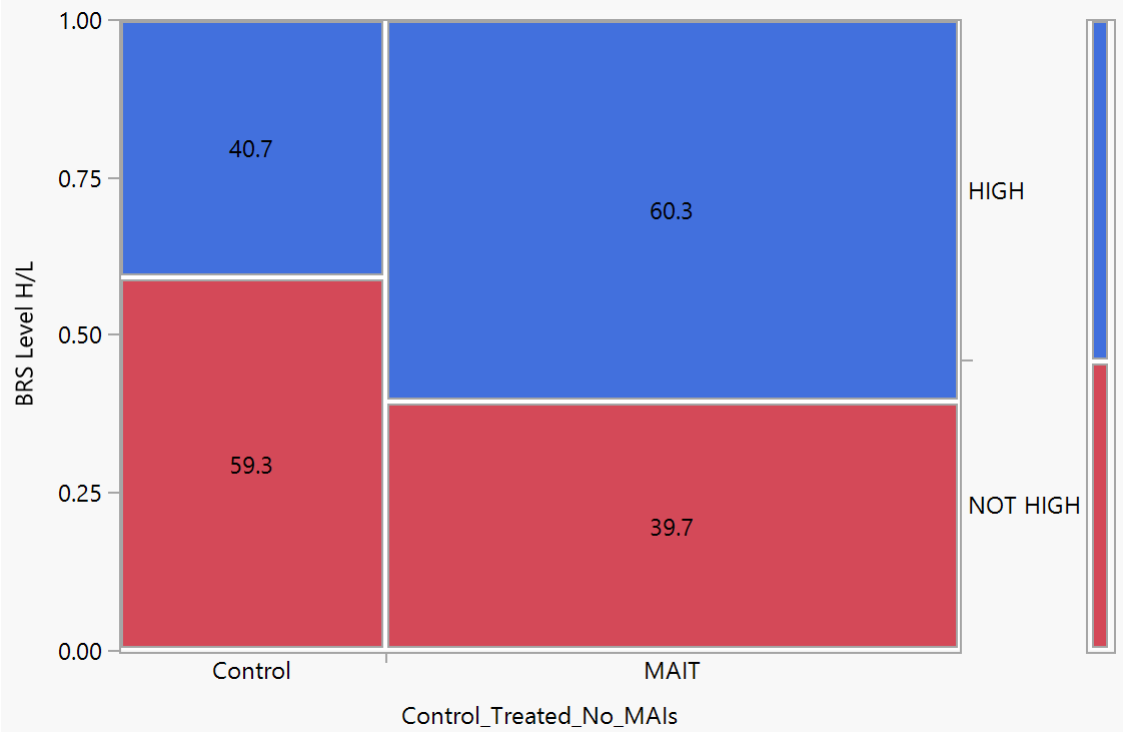
Tests			
N	**DF**		**RSquare**
170	1		0.0243
Test	**ChiSquare**		**Prob>ChiSq**
Liklihood Ratio	5.711		0.0169*
Pearson	5.703		0.0169*

Notes: Displays the relationship between two sets of categorical variables. Outcomes include joint distributions and row percent of the dependent variables relative to the independent category. The Chi-Square tests the relationship between the categorical variables within the population. The null hypothesis states that the categorical variables are independent. The Likelihood ratio corresponds to the probability that the outcome will occur under the null hypothesis. $* p < 0.1$.

Figure 13 is a visual representation of the results produced from the contingency table depicted as Figure 12. Notably, the Treatment group of Marines has a greater

proportion in the High level of resiliency relative to the Control group, given the BRS definition and levels: High and Not High (Normal and Low).

Figure 13. Mosaic Plot: Average BRS Distribution for Treated Group Versus Control Group



c. Method 4

Method 4 uses the PCQ resiliency scale to conduct the same analytical tests previously conducted under the BRS. Figure 14 outlines the first contingency table that interacts the original Marine groups - Control, MAIT, and MAIT_Students - with the PCQ(r) levels of Low, Normal, and High. Coinciding with the results from the similar BRS table, the MAIT group of Marines has the greatest proportion in the High level of PCQ(r). However, this contingency table is not found to be statistically significant, and therefore the null hypothesis cannot be rejected, a null hypothesis which states that the data groups are independent. Given the fact that the PCQ(r) does not have a designated predetermined

level of Low, Normal, and High, in which the BRS levels were assumed to coincide with the PCQ(r), this method is deemed insufficient as a proven tool to assess a Marine's level of resiliency.

Figure 14. Contingency Table: PCQ(r) / Original Populations: Control, MAIT, and MAIT Student

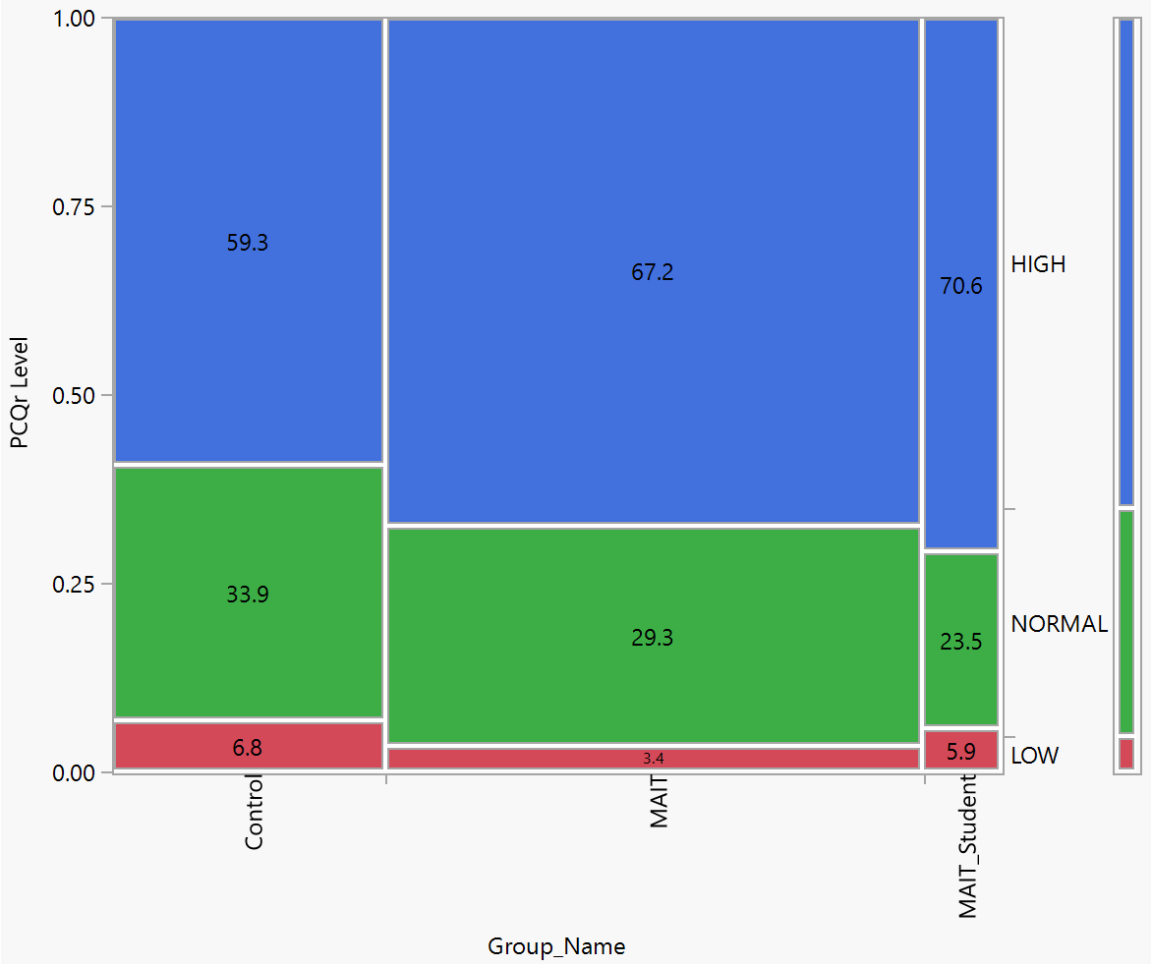
		PCQr Level			
		LOW	**NORMAL**	**HIGH**	**TOTAL**
Group_Name	**CONTROL**	4	20	35	59
	Row %	6.78	33.9	59.32	
	MAIT	4	34	78	116
	Row %	3.45	29.31	67.24	
	MAIT_STUDENT	1	4	12	17
	Row %	5.88	23.53	70.59	
	TOTAL	58	9	125	192

Tests			
N	**DF**		**Rsquare**
192	4		0.0066
Test	**ChiSquare**		**Prob>ChiSq**
Liklihood Ratio	16.559		0.7397
Pearson	16.647		0.7369

Notes: Displays the relationship between two sets of categorical variables. Outcomes include joint distributions and row percent of the dependent variables relative to the independent category. The Chi-Square tests the relationship between the categorical variables within the population. The null hypothesis states that the categorical variables are independent. The Likelihood ratio corresponds to the probability that the outcome will occur under the null hypothesis. $* p < 0.01$.

Figure 15 portrays a visual depiction of how the data interacted with the PCQ(r) levels as a Mosaic Plot. Notably, the Mosaic Plot shows each proportion of Marines relative to the three sub-groups return similar levels of resilience under the PCQ(r). This result of statistical insignificance continues for each of the remaining contingency tables under the PCQ(r), and thus will not be shown. The evidence gained from the PCQ(r) will remain as an average level of resiliency given in Method 1 of this research.

Figure 15. Mosaic Plot: Average PCQ(r) Distribution of Marines Relative to their MCMAP level: MAI, MAIT, and User



d. Method 5

Method 5 used regression analysis in an attempt to identify statistical relationships between any of the variables captured within this thesis and BRS/PCQ resiliency scales. Models 1 and 2 tested the treatment group's level of resilience via both BRS and PCQ(r) scales. The treatment group was also referred to as the MAIT group. The analysis compared the resiliency levels of the Treatment group in reference to the Control group.

(1) Model 1

Model 1 regressed the average PCQ(r) on the Treatment group with the Control group as the reference group. The regression found that, on average, the Treatment group showed a .15 point increase relative to the Control group. However, the difference was not statistically significant.

(2) Model 2

Model 2 regressed the average BRS on the Treatment group with the Control group as the reference group. The regression found that, on average, the Treatment group showed a .34 point increase relative to the Control group. Furthermore, the difference was found to be statistically significant at less than the alpha level of .05.

F. FURTHER FINDINGS

Additional data provided external insight on the concept of resilience in the Marine Corps. The demographic data that was collected for this thesis may help stakeholders understand human trends that are associated with higher levels of resiliency. Model 3 aims to uncover demographic trends associated with higher levels of resilience.

a. Model 3

Table 3 attempted to find statistical evidence that supports a correlation between the demographic variables and each resiliency scales. The variables were described as follows: Female Marines compared to males, married Marines compared to unmarried, Marines with dependents compared to Marines without, Rank of Marines, current MCMAP belt level, and the amount of time Marines spend in a month sustaining the MCMAP. Of note, the variable Rank was segregated by groups: noncommissioned officers, staff noncommissioned officers, company grade officers, warrant/chief warrant officers, and field grade officers. Subsequently, the monthly sustainment hours were separated into three time periods: zero sustainment hours per month, ten hours or less per month, and ten hours or more per month. The BRS was the only resiliency scale that was found to have a corresponding relationship with any of the demographic variables. Rank was the only

variable that provided a statistically significant relationship with the BRS. Specifically, on average, an increase from one rank group to the next returned a .19-point increase on the BRS while holding all other variables constant. Furthermore, the finding on the variable Rank was found to be statistically significant at the .05 level. The majority of the results may be not be statistically significant due to the low participation rates.

Table 3. Linear Regression Model 3

	(1)	(2)
	Linear Model	**Linear Model**
	BRS	PCQ(r)
Gender	-0.260	-0.075
(Female = 1)	(0.215)	(0.182)
Married	0.024	-0.134
(Single = 0)	(0.161)	(0.191)
Dependents	-0.044	0.031
	(0.131)	(0.154)
Rank	0.193***	0.112
	(0.055)	(0.061)
MCMAP Belt	0.043	0.048
	(0.029)	(0.029)
Sustain	0.125	-0.033
	(0.077)	(0.084)
Observations	192	192
R-Squared	0.098	0.038

Notes: Displays coefficients from linear regressions. Outcomes include scores from BRS and PCQ(r). These results are interpreted as percentage-point changes in the level of resiliency for each scale. The variable Gender is a binary variable where males are the reference group. Married is a binary variable indicating those Marines with spouses. The Rank variable is a continuous variable with the following values: NCO = 1, SNCO = 2, warrant and chief warrant officers = 3, company-grade officers = 4, and field grade officer = 5. The MCMAP Belt variable is a continuous variable where tan = 1, gray = 2, green = 3, brown = 4, black = 5, green MAI = 6, brown MAI = 7, black MAI = 8, MAIT = 9. The variables Sustain is given values of (0, 1, 2) that correspond to Marines who do not sustain the MCMAP, Marines that sustain the MCMAP less than 10 hours per month, and Marines who sustain the MCMAP greater than 10 hours per month. Standard errors are and displayed in parentheses. + $p < 0.10$, ∗ $p < 0.05$, ∗∗ $p < 0.01$, ∗∗∗ $p < 0.001$. Data Source: Survey results.

1. Full PCQ

The 17 students that attended the MAIT course 3-19 completed the full PCQ at the beginning of the course, and then three of the 17 students completed the same survey and the end of the course. The purpose of this was to gain additional insight on the immediate effects of the MAIT course given the longitudinal data. This would allow the thesis to potentially suggest a casual effect of the MCMAP on individual resilience. However, since the MAIT study population was so small it lacked power to conduct the analysis. The 17 MAIT students that administered the full PCQ returned an average PCQ score of 4.17 out of 5. This high average score suggests that those Marines who attend the MAIT course have a high level of psychological capital, or mental wellness. The three MAIT students that took the post-course survey returned negligible difference in all scales except for the PCQ(r). The individual averages for each MAIT student increased by a minimum of .33 of a point. Interestingly, this is the resiliency scale that was found not statistically significant, which may suggest that there is unrecognized value in the PCQ(r).

2. Protean Career Orientation

The students from the MAIT course 3-19 also took the protean career orientation scale in addition to the full PCQ. The 17 MAIT students returned an average score of 4.76 out of five points for the protean career orientation scale. As stated earlier, this scale aims to identify those that are career driven and are more likely to make career-benefitting decisions. This high average score suggests that those Marines who attend the MAIT course are likely to be career-driven Marines. Of note, Marines must volunteer to attend the MAIT course and gain financial support from their parent command in order to attend. The MAIT students' average marginal differences returned in the post-course surveys, containing both the full PCQ and protean career orientation scale, are shown in Figure 16.

Figure 16. MAIT Students Pre / Post-Course Survey Differences.

MAIT Student ID	PsyCap	Self-Efficacy	Hope	Resilience	Optimism	Self-Directed	BRS
100020	0.42	0.33	0.33	**0.50**	0.50	-0.33	0.67
100007	-0.17	-0.17	-0.83	**0.33**	0.00	-0.17	-0.33
100021	0.33	0.17	0.50	**0.33**	0.33	0.50	0.50

Notes: Displays the results from the three MAIT students who took the post-course survey. The results show the difference in averages from the pre-course survey for the full PCQ, BRS, and protean career orientation scales.

G. CONCLUSION

This chapter covers all finding and analyzes the research methods conducted in this thesis. The BRS was found to be a statistically significant tool for assessing resiliency in the Marine Corps and may provide value to the Marine if institutionalized. Conversely, the PCQ resiliency scale was found to not be statistically significant; however, the Marines still returned higher average PCQ(r) scores relative to previous research populations. The next chapter will cover the conclusion and recommendations for this thesis.

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VI. CONCLUSIONS AND RECOMMENDATIONS

> From the time you take your first breath, you become eligible to die. You also become eligible to find your greatness and become the One Warrior. But it is up to you to equip yourself for the battle ahead. Only you can master your mind, which is what it takes to live a bold life filled with accomplishments most people consider beyond their capability.
>
> —David Goggins
> Author, *Can't Hurt Me*

A. OVERVIEW

Human resilience is a complex and elusive topic that is culturally dependent and is not held to a specific action in a given moment in time. Moreover, resilience is an admired trait such that the concept can be developed into a strength of a person's character. The history of the Marine Corps is heavily peppered with parables of resilient Marines who have proven that the Marine Corps is a unique organization responsible for executing orders in the harshest conditions. These stories have also continuously justified reasons for why Americans want their Marine Corps. Past and current academic literature offers vast research regarding various concepts of resilience relative to a specific field of study. Along with the many domains that are associated with the concept of resilience, there are also multiple methods of assessing human resilience that offer intuitive insight. A popular method requires subjects to take a survey; insight is gained surrounding the respondent's survey score relative to the exact moment that the respondent took the survey. Managers that administer this popular method must consider that resilience is a volatile human trait. Therefore, analyzing scores taken from a one-time survey will not provide empirical evidence that enables leaders to make effective manpower decisions. This thesis has shown that the Marines surveyed throughout this research perceive resilience as a positive concept that has been a key element throughout the Corps' history, an element that has built a more prepared Marine Corps. This thesis concludes that most Marines do not relate to the current definition of resilience that is outlined in policy. Therefore, the Corps should consider

revising policy to align with a relatable definition that captures the warrior spirit of the Marines. From there, the Marine Corps training and education commands must stay abreast of the change and offer training opportunities that shape resilient actions. This will take current training and education beyond the status quo and may offer measurable outcomes that the Corps could continue to build upon.

B. CONCLUSIONS

The Marine Corps is a unique organization perfect for studying how to enhance developable traits like resilience due to the military not being a profit-focused organization. The Marine Corps is unique because of its people, its Marines. Specifically, the uniqueness of the Corps is defined by what the Marines do, complemented closely by how they do it. The Marines have created an organization that admires resilient Marines who thrive and become recognized for their actions through adversity. This may cause an accession-loop such that people who admire the resilient actions of Marines self-select into the organization. At a minimum, this thesis concludes that the Marine Corps attracts people with above-average levels of resilience. Comprehending that resilience is associated with a world-renowned resilient culture may seem like common knowledge; enhancing Marine resilience should offer valuable insight regarding Marine manpower issues previously outlined, such as retention and attrition rates based off the responses gained from one of the research questions. When asked, *how can an increase in individual resilience benefit the Marine Corps*, those interviewed during this research provided the following answers.

> Less suicides, less drug and alcohol issues, less DWI/DUI issues, Marines sticking around more than one tour, etc. (retired Marine lieutenant colonel, interview with author, October 31, 2019).

> Suicide and mental health consume a large amount of man hours and resources. This takes away from other members who need development and training. An increase in individual resilience should result in less cases. During conflicts, a lack of resilience in individuals leads to ineffective units and an ineffective Marine Corps (Marine captain (a), interview with author, October 1, 2019).

> An increase in individual resilience throughout the Corps would result in an overall healthier and more capable Resilient individuals = resilient force.

> Everything from positive effects in combat to conduct in garrison would experience a dramatic improvement. I am confident that suicide attempts and suicidal ideations would reduce, as well as divorce rates all due to an increase in individual resilience. The ability to effectively negotiate hardships/obstacles encountered provides one with numerous benefits (Marine captain (c), interview with author, October 6, 2019).

> Directly through improved personnel readiness, decreased attrition, and decreased medical and legal issues. Indirectly through improved training and equipment readiness created through greater focus on training and readiness possible when the overall force is more resilient. In prolonged combat, greater resilience will lower risk to mission and risk to force (Marine lieutenant colonel (a), interview with author, October 31, 2019).

> A more resilient Marine Corps allows us to successfully complete the transition of civilian to Marine to loyal veteran. It allows our Marines to maintain sound judgement, creating a stronger fighting force. It reduces the loss of Marines to battles involving mental illness due to stress, duress, and trauma. One of the goals of the Marine Corps is to give the country back a better product than it was given. With resiliency, we are able to accomplish that mission (Marine gunnery sergeant, interview with author, October 9, 2019).

> Marines excel and thrive because of each other. The more resilient the individuals are, the more resilient the team will be, and the more resilient the unit will be (Marine lieutenant colonel (c), interview with author, November 4, 2019).

Interestingly, these answers highlight that an increase in resilience among Marines will positively impact the mental health of the organization. In other words, the Marine Corps could gain positive residual impacts from promoting resilience without mentioning things like mental health, suicides, or mental illness, which subliminally appoints "resilience training" as a way to deal with weaknesses or symptoms of a victim. Doing this would help decrease the stigma associated with those terms in the Marines, which are not warmly welcomed in such an honorable organization. These answers also reinforce the point that Marine Corps resilience <u>is</u> a Marine manpower matter that effects combat readiness. Every response to this interview question suggests that promoting resilience in the Marine Corps will result in a stronger and more effective force-in-readiness. However, to succeed, the Corps must leverage all Marine Corps training and education units(s) to

serve as catalysts to produce effective results. Success will take continuous effort from the entire Marine Corps. Survey results showed that Marines in higher rank groups have higher levels of resilience; therefore, this suggests that Marine Corps may already have the right people in the right positions to lead by example and help promote Marine resilience.

C. KEY ELEMENT

From all the research conducted throughout this thesis, there is one key element that must be acknowledged regarding this topic. The key element that makes up the premise of resilience is perspective. Inky Johnson is an expert in leading a resilient life and stated, "perspective drives performance" (YouTube, 2019). The legacy of the Marine Corps is hinged upon the historical examples of resilient Marines. These endless examples provide valuable perspectives for today's generation of Marines to emulate. Hearing the story of how Dakota Meyer's perspective forced him to act selflessly during the battle of Ganjgal, in the face of almost certain death, may inspire other Marines to change their perspective on the concept of adversity. Therein lies the power of the Marine Corps under the notion of relativity. Marines of any creed, demographic background, ethnicity, or MOS are able to relate to this example, and the countless other examples, because they embody the universally recognized trademark - the eagle, globe, and anchor - that all Marines have earned.

D. RESEARCH QUESTIONS

The following section will draw conclusions for each research question contained in this thesis.

1. How Does the Marine Corps Define Resilience?

Culture is created by the people within an organization; therefore, there is value in understanding how Marines perceive the concept of resilience and define it relative to the Marine Corps. This thesis draws the conclusion that Marines do not relate to the current definition outlined in policy. Survey results suggest that the current definition of resilience outlined in the Marine Corps publications would be more relatable if the premise of Marine

Corps resilience is a verb relative to a noun. Furthermore, survey responses prove that Marines view resilience as an ability and not a process. Recently policy-shapers have spoken about resilience as a developable human trait, and the results gathered from this thesis aligns with those policy-shapers' words.

2. How Does the Marine Corps Assess Resilience?

This research concludes that the Marine Corps does not have a current method of evaluating individual resilience. The Corps' present method of assessing resilience is a checklist that aims to predict the propensity that intended training will enhance both unit and Marine resilience. Without a cultural definition of resilience or a baseline level of resilience for which training outcomes can be gauged from, the current method is an ineffective way to predict that training returns enhanced levels of resilience. A more suitable method towards assessing resilience would be the BRS used in this thesis. The BRS is a statistically significant method of assessment that is also amenable to the Marine culture. This scale and corresponding research show potential for becoming a reliable tool for unit leaders to use at their discretion to formulate effective training and manpower decisions.

3. How Does the Marine Corps Enhance Resilience?

Without a proven method of assessing resilience, the Marine Corps cannot claim that a Marine Corps programs promotes resilience. Additionally, the Marine Corps UMAPIT program lacks evidence that the current training methodology therein promotes individual resilience after annual training is conducted. Again, the Marine Corps requires a cultural definition and a way to assess it before the organization can claim that any programs.

4. Does the MCMAP Enhance Individual Resilience?

This research showed no causal evidence to prove that the MCMAP enhances individual resilience as stated in the current MCMAP MCO. This may be because the MCMAP policy denotes that the program enhances three different types of resilience that

are all undefined. Of note, this conclusion does not mean that the MCMAP does not enhance individual resilience. There is evidence to suggest a strong correlation between MAITs and higher levels of resilience compared to Marines who are not MAITs. With confidence it can be stated that at a minimum the MAIT certification attracts Marines with high levels of resilience. The remaining question is whether they possessed that level of resilience when they joined the Marine Corps - or if the MAIT certification increased their level of resiliency. Ultimately, there may be undiscovered evidence that proves that the MCMAP enhances a Marine's level of resilience over time; however, this idea will require further research to prove.

E. RECOMMENDATIONS

Results from this thesis conclude by offering the following five recommendations:

1) Add Resilience to the Marine Corps leadership traits. Institutionalizing this concept will show Marines that the organization values the concept of resilience, and thus will encourage Marines to learn the definition and embody its concept. This would make resilience the fifteenth Marine Corps leadership trait; understanding the concept of resilience is already appointed as a leader's responsibility in MCTP 3-30E. If applicable, resilience could also replace the current leadership trait: Enthusiasm. Marines can be effective leaders without exemplifying enthusiasm; however, Marines who cannot adapt to adversity and grow through hardship will put the lives of other Marines in danger. Adopting resilience as a leadership trait will bring this concept to the forefront of the Marine Corps; results from the survey suggest that Marines are unaware of the current definition contained in Marine Corps policy and publications. Therefore, this recommendation will directly address this lapse in the culture's understanding of resilience.

2) Revise Marine Corps doctrines that define resilience as a process with one of the following Marine Corps resilience definitions. Of note, these definitions are in order from most recommended to least recommended and are constructed from the literature review and this thesis's survey responses.

A Marine who possesses the ability and willpower to objectively adapt to adversity while maintaining a purposeful perspective towards accomplishing the mission, and never faltering from Marine Corps core values.

A Marine who recognizes the reality of an adverse situation and maintains an objective prospective while maneuvering through it until the mission is accomplished.

A Marine's ability to improvise, adapt, and overcome adversity without wavering from the Marine Corps' core values.

A Marine's ability to perceive and respond to stress and adversity with a positive mental attitude and understanding that adversity is inevitable and an opportunity to grow.

The point of adopting a cultural definition is to acknowledge the uniqueness of the organization by ensuring that the word *Marine* is outlined within the definition. Another option is to change the defining word *resilience* to *Marine resilience*, isolating the culture from all others. Furthermore, including the word "ability" suggests a developable Marine trait that reflects the majority of the survey responses when asked to culturally define the word resilience.

3) The Marine Corps should adopt a method of assessing resilience that offers insight on Marine resilience to both the organization and tactical level unit leaders. The Marine Corps should also validate the BRS and consider it as a manpower management tool for key unit leaders such as a unit's career retention specialist. Of note, any tool selected by the Marine Corps must establish a baseline of resilience for reference. The tool must also be able to measure the effectiveness of a program(s) given a methodology that aligns with the cultural definition.

4) The MCMAP should focus on a holistic concept of resilience like *Marine resilience* vice dissecting the concept into the three separate concepts *mental, moral, and physical.* Separating the concept into different human domains convolutes how to interpret each definition when the 2019 MCO simultaneously claims to build each undefined concept of resilience. If this recommendation is unfeasible, then the MCMAP policy should

provide individual definitions for *mental, moral, and physical resiliency* to alleviate any confusion in how to build resiliency in each of these individual domains.

5) Last, further longitudinal research is recommended to find evidence of a causal relationship between resilience and the MCMAP.

F. END STATE

This thesis identified a lapse in the way military policymakers, and specifically the Marine Corps, communicate expectations for needing/enhancing resiliency given current policy. If Marines are expected to take action to enhance their resiliency, then the Marine Corps may benefit from not denoting resilience as a process. The word "process" gives the impression that if a Marine follows a structured and systematic checklist then they will achieve the outcome. This ideology negates the volatility of resilience and assumes the outcome is achieved the same way for anyone that follows the process. Resilience is a paramount trait in Marines that becomes diluted under the current definition that is shared with the U.S. Navy. Furthermore, in order to shake the victim-stigma associated with mental illness as a result from the past two decades of war and adversity, the Marine Corps must identify cost-effective organizational programs that strive toward promoting individual resilience and stay committed to them. Current training, education, and support programs make claims of promoting resilience but do not identify specific methods or give a point of reference to build resiliency from. The MCMAP shows potential in becoming a resiliency-building program but lacks empirical evidence to support the current intent of the program. Ultimately, people are the heartbeat of every organization and the Marine Corps can continue to thrive as an unmatched force-in-readiness by shaping the warrior spirit and human capital of its most valuable asset: The Marines. Resilient Marines of the past have ensured the legacy of the Marine Corps today. However, it is the resilient actions of today that will ensure the legacy of the Marine Corps for another 244 years.

APPENDIX A. CHECKLIST FOR EVALUATING RESILIENCE IMPACT OF TRAINING

☐	Is the training realistic and relevant?
	☐ Will the training allow unit members to master the same specific challenges they will probably face during deployment?
	☐ Will the training occur in an environment that mimics the sights, sounds, and smells they will experience during deployment?
	☐ Will the training prepare unit members so thoroughly that there will be few surprises during deployment?
☐	Will the training encourage unit members to develop new skills and competencies?
	☐ Will the training push unit members beyond their current level of knowledge and skill?
	☐ Will the increase in knowledge and skill continue during training?
☐	Will the training provide experiences of success and mastery?
	☐ Will the training set expectations that will be tough but achievable?
	☐ Will unit members be able to keep trying until they master each challenge?
☐	Will the training encourage unit members to solve problems in unfamiliar situations?
	☐ Does the training include opportunities to think, plan, and decide, as well as to respond to known situations with rehearsed patterns of action?
	☐ Will the training encourage team problem solving?
☐	Will the training inoculate unit members to likely intense operational stressors?
	☐ If unit members may face life-threat during deployment, does training mimic life-threat in a subdued, tolerable form?
	☐ If unit members may face the aftermath of violence during deployment, does training include exposure to the sights, sounds, and smells of death or injury?
	☐ Does the training include a mechanism for leaders to monitor unit members' responses to stress to ensure they react with progressively less alarm?
☐	Do safeguards exist to prevent stress injuries during training?
	☐ Will leaders continuously monitor the stress zones of unit members?
	☐ Will leaders ensure adequate sleep and recovery time?

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APPENDIX B. TRAINING FOR RESILIENCE CHECKLIST

TRAINING FOR RESILIENCE CHECKLIST
REALISM and RELEVANCE
- Same CHALLENGES anticipated during deployment? - Similar ENVIRONMENT to deployment? - Prepares Marines thoroughly so FEW SURPRISES during deployment?
NEW SKILLS & COMPETENCIES
- PUSHES Marines BEYOND CURRENT KNOWLEDGE and SKILL? - STEPWISE INCREASE in knowledge and skill during training?
Experiences of SUCCESS and MASTERY?
- Expectations TOUGH but ACHIEVABLE? - Can Marines KEEP TRYING until MASTERY of each challenge?
Will Marines SOLVE PROBLEMS in UNFAMILIAR situations?
- THINK, PLAN, and DECIDE using rehearsed actions? - Encourages TEAM PROBLEM SOLVING?
EXPOSE Marines to INTENSE operational STRESSORS? (as applies)
- Mimics LIFE THREAT in a subdued, tolerable form? - Includes exposure to sights, sounds, smells of DEATH or INJURY? - MONITOR Marines' stress for PROGRESSIVELY LESS ALARM?
Safeguards to prevent STRESS INJURIES during training?
- Leaders continuously MONITOR the STRESS ZONES of Marines? - Leaders ensure adequate SLEEP and RECOVERY time?
Require Marines to COMMUNICATE and create TRUST?
- Training require and promote TEAMWORK? - Ensure training success be as TEAM ACHIEVEMENT? - Includes SHARED HARDSHIPS and ADVERSITIES?
Training enhance COMMUNICATION and TRUST in unit LEADERS?
- Require VERTICAL COMMUNICATION in the chain of command? - Include HARDSHIPS SHARED by ALL? - Challenge but ensure the SUCCESS of small unit LEADERS?
Reinforce CORE VALUES and ETHICAL DECISION MAKING?
- Include ETHICAL DECISION MAKING under stress? - Discussions of CORE VALUES pertaining to training?
Teach stress management and STRESS FIRST AID skills?
- Teach SELF CARE and BUDDY CARE to reduce stress? - Teach RECOGNITION of Stress Continuum STRESS ZONES? - Increase familiarity of getting HELP for stress injuries?

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APPENDIX C. MARINE CORPS RESILIENCE SURVEY (CONTROL AND MAIT GROUPS)

Resilience

(1) strongly disagree (2) somewhat disagree (3) neutral (4) somewhat agree (5) strongly agree

When I have a setback at work, I have trouble recovering from it, moving on

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I usually manage difficulties one way or another at work

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I can be "on my own," so to speak, at work if I have to

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I usually take stressful things at work in stride

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I can get through difficult times at work because I've experienced difficulties before

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I feel I can handle multiple things at a time

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

Brief Resilience

I tend to bounce back quickly after hard times

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I have a hard time making it through stressful events

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

It does not take me long to recover from a stressful event

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

It is hard for me to snap back when something bad happens

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I usually get through difficult times with little trouble

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I tend to take a long time to get over set-backs in my life

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

Demographic

Self-reported voluntary demographic data

What is your gender?

Please choose **only one** of the following:

- ○Female
- ○Male
- ○Prefer not to answer

Are you married or living with partner?

Please choose **only one** of the following:

- ○Yes
- ○No

Do you have dependents other than your spouse/partner?

Please choose **only one** of the following:

- ○Yes
- ○No

What is your rank?

Please choose **only one** of the following:

- ○E4-E5
- ○E6-E9

- ◯O1-O3
- ◯O4-O5

What is your current MCMAP belt level?

Please choose **only one** of the following:

- ◯Tan Belt
- ◯Gray Belt
- ◯Green Belt
- ◯Brown Belt
- ◯Black Belt
- ◯Green MAI
- ◯Brown MAI
- ◯1st degree Black MAI

Approximately how many hours per month have you sustained MCMAP within the last year?

Please choose **only one** of the following:

- ◯Zero
- ◯10 hours or less per month
- ◯10 hours or more per month

This includes Tan through current belt level.

Short Answers

How do you define resilience?

Please write your answer here:

This is your personal interpretation as it pertains to being a United States Marine.

Do you believe that the Marine Corps Martial Arts Program can enhance individual resilience?

Please choose **only one** of the following:

- ◯Yes
- ◯No

If so, please describe how.

APPENDIX D: MARINE CORPS RESILIENCE SURVEY EXAMPLE (MAIT STUDENTS OF COURSE 3-19)

(1) strongly disagree (2) somewhat disagree (3) neutral (4) somewhat agree (5) strongly agree

Self-Efficacy

I feel confident analyzing a long-term problem to find a solution

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I feel confident in representing my unit/shop in meetings with senior leadership

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I feel confident contributing to discussions about my unit's/shop's strategy

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I feel confident helping leadership set targets/goals in my unit/shop

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I feel confident contacting people outside my unit (e.g., Chaplain, Marine & Family Life Counselors, DSTRESS hotline, Medical) to discuss problems

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I feel confident presenting information to my peers

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

Hope

(1) strongly disagree (2) somewhat disagree (3) neutral (4) somewhat agree (5) strongly agree

If I should find myself in a jam at work, I could think of many ways to get out of it

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

At the present time, I am energetically pursuing my work goals

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

There are lots of ways around any problem

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

Right now I see myself as being pretty successful at work

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I can think of many ways to reach my current work goals

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

At this time, I am meeting the work goals that I have set for myself

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

Resilience

When I have a setback at work, I have trouble recovering from it, moving on

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I usually manage difficulties one way or another at work

Please choose **only one** of the following:

- ○1
- ○2
- ○3

- ○4
- ○5

I can be “on my own,” so to speak, at work if I have to

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I usually take stressful things at work in stride

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I can get through difficult times at work because I’ve experienced difficulties before

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I feel I can handle multiple things at a time

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

Optimism

When things are uncertain for me at work, I usually expect the best

Please choose **only one** of the following:

- ○1
- ○2
- ○3

- ○4
- ○5

If something can go wrong for me work-wise, I anticipate it will

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I always look on the bright side of things regarding my job

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I'm optimistic about what will happen to me in the future as it pertains to work

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

In this job, things never work out the way I want them to

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

My approach to life is "everything happens for a positive reason"

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

Self-directed

I am responsible for expanding my career-related skills and knowledge

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

It is my responsibility to take the initiative to investigate my career options

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I am responsible for my career development

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I control the direction of my career

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

It is up to me to find or create opportunities for career progression

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I am personally accountable for how my career develops

Please choose **only one** of the following:

- ○1

- ○2
- ○3
- ○4
- ○5

Brief Resilience

I tend to bounce back quickly after hard times

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I have a hard time making it through stressful events

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

It does not take me long to recover from a stressful event

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

It is hard for me to snap back when something bad happens

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

I usually get through difficult times with little trouble

Please choose **only one** of the following:

- ○1
- ○2
- ○3

- ○4
- ○5

I tend to take a long time to get over set-backs in my life

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5

Demographic

Self-reported voluntary demographic data

What is your gender?

Please choose **only one** of the following:

- ○Female
- ○Male
- ○Prefer not to answer

Are you married or living with partner?

Please choose **only one** of the following:

- ○Yes
- ○No

Do you have dependents other than your spouse/partner?

Please choose **only one** of the following:

- ○Yes
- ○No

What is your rank?

Please choose **only one** of the following:

- ○E4-E5
- ○E6-E9
- ○O1-O3
- ○O4-O5

What is your current MCMAP belt level?

Please choose **only one** of the following:

- ○ Tan Belt
- ○ Gray Belt
- ○ Green Belt
- ○ Brown Belt
- ○ Black Belt
- ○ Green MAI
- ○ Brown MAI
- ○ 1st degree Black MAI

Approximately how many hours per month have you sustained MCMAP within the last year?

Please choose **only one** of the following:

- ○ Zero
- ○ 10 hours or less per month
- ○ 10 hours or more per month

This includes Tan through current belt level.

Short answers

Short answer questions regarding MCMAP and resilience

How do you define resilience?

This is your personal interpretation as it pertains to *being* a United States Marine.

How has MCMAP influenced your individual resilience?

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APPENDIX E. MARINE CORPS RESILIENCE INTERVIEW QUESTIONNAIRE

Interview Questions

How do you define resilience?

How does resilience pose a unique relationship with the Marine Corps compared to the other branches of service?

What makes a Marine *resilient*?

How can we assess a Marine's individual level of resilience?

Do you believe that some Marines are more resilient than others?

If so, why?

How can we enhance our own level of resilience?

What current Marine Corps programs help (proactively) build resilience?

How can an increase in individual resilience benefit the Marine Corps?

Does MCMAP help build resilience?

If so:

What factors of MCMAP enhance individual resilience?

How has MCMAP helped you become more resilient?

How has your MCMAP instruction helped others become more resilient?

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