

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE (DD-MM-YYYY) 14-04-2015		2. REPORT TYPE Master of Military Studies Research Paper		3. DATES COVERED (From - To) September 2014 - April 2015	
4. TITLE AND SUBTITLE The Intangible Benefits of the Marine Corps Martial Arts Program				5a. CONTRACT NUMBER N/A	
				5b. GRANT NUMBER N/A	
				5c. PROGRAM ELEMENT NUMBER N/A	
6. AUTHOR(S) Adams, Brian A., Major, USMC				5d. PROJECT NUMBER N/A	
				5e. TASK NUMBER N/A	
				5f. WORK UNIT NUMBER N/A	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) USMC Command and Staff College Marine Corps University 2076 South Street Quantico, VA 22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER N/A	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A				10. SPONSOR/MONITOR'S ACRONYM(S) N/A	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S) N/A	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.					
13. SUPPLEMENTARY NOTES N/A					
14. ABSTRACT There is a fairly low probability that Marines, especially those with a non-combat arms Military Occupational Specialty (MOS), will ever engage in hand-to-hand combat. A growing belief, particularly among non-combat arms communities, asserts that MCMAP is a hazard to readiness as it puts Marines at-risk for injury with little to no return on investment. This paper examines MCMAP's contributions to the overall betterment of the Marine that may not be readily evident to the casual observer. In addition to teaching hand-to-hand fighting techniques and promoting physical fitness, martial arts training cultivates intangible attributes such as positive personality and behavioral traits while simultaneously providing the individual with tools to strengthen resiliency in preparation for meeting the high demands of the Corps. Recommendations to commanders on how best to leverage the benefits of MCMAP while mitigating risk include: commitment to ongoing training, increase emphasis on values training, increase emphasis on cooperative training, and maximize use of time through the concurrent completion of mandatory annual requirements.					
15. SUBJECT TERMS MCMAP, Discipline, Aggression, Operational Stress Control, Resiliency, PTS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 70	19a. NAME OF RESPONSIBLE PERSON Marine Corps University/Command
a. REPORT Unclass	b. ABSTRACT Unclass	c. THIS PAGE Unclass			19b. TELEPHONE NUMBER (include area code) (703) 784-3330 (Admin Office)

United States Marine Corps
Command and Staff College
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068

MASTER OF MILITARY STUDIES

TITLE:
**THE INTANGIBLE BENEFITS OF THE MARINE CORPS
MARTIAL ARTS PROGRAM**

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

AUTHOR:
Major Brian Adams, US Marine Corps

AY 14-15

Mentor and Oral Defense Committee Member: Dr. Rebecca Johnson
Approved: [Signature]
Date: 14 April 2015

Oral Defense Committee Member: Dr. James Joyner
Approved: [Signature]
Date: 14 April 2015

Executive Summary

Title: The Intangible Benefits of the Marine Corps Martial Arts Program (MCMAP)

Author: Major Brian Adams, United States Marine Corps

Thesis: In addition to teaching hand-to-hand fighting techniques and promoting physical fitness, martial arts training cultivates intangible attributes such as positive personality and behavioral traits while simultaneously providing the individual with tools to strengthen resiliency in preparation for meeting the high demands of the Corps.

Discussion: There is a fairly low probability that Marines, especially those with a non-combat arms/infantry Military Occupational Specialty (MOS), will ever engage in hand-to-hand combat. A growing belief, particularly among non-combat arms communities, asserts that MCMAP is a hazard to readiness because it puts Marines at risk for injury with little to no return on investment. This paper examines MCMAP's contributions to the overall betterment of the Marine that may not be readily evident to the casual observer. MCMAP training develops positive behavioral and personality traits in the form of increased discipline with regards to conduct and offers the individual a positive outlet to express and relieve the aggression that the Corps demands of its Marines. Through a MCMAP review assessment, results of the program's impact on rates of disciplinary actions and commendatory material note a positive trend. Additionally, qualitative assessments and anecdotal evidence suggest that sustained training and the presence of a philosophical and/or morality based aspect, such as the values-based training found in the character discipline of MCMAP, contribute to the temperance of aggression. I also contend that MCMAP training positively contributes to resiliency development through the promotion of operational stress prevention attributes and provides therapeutic benefit for recovery in the aftermath of Post Traumatic Stress. The resilient Marine possesses a balanced foundation of strength in the social, spiritual, mental, and physical domains. MCMAP contributes to all either directly or indirectly, making it a valuable operational stress prevention resource for leaders. The therapeutic impact of martial arts training is also demonstrated through the testimonies of mental health professionals and specialists that substantiate the belief that MCMAP may serve as a coping tool and provide an additional element of therapy for those on the road to recovery.

Conclusion: Leaders of units outside of combat-arms should embrace MCMAP, not for the probability of engagement in unarmed combat, but for the outlet it provides and the fire that keeps the warrior ethos kindling burning. Commanders should consider recommendations to *commit to ongoing training, increase emphasis on values training, increase emphasis on cooperative training, and maximize use of time through the concurrent completion of mandatory annual requirements.*

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

QUOTATION FROM, ABSTRACTION FROM, OR REPRODUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.

Table of Contents

	Page
EXECUTIVE SUMMARY	i
DISCLAIMER	ii
TABLE OF CONTENTS.....	iii
ACKNOWLEDGEMENTS	iv
INTRODUCTION	1
BACKGROUND	2
Physical Discipline	3
Figure 1. Techniques by Style and Origin	3
Mental Discipline.....	4
Character Discipline	5
Common Fears and Misperceptions	6
IMPACT ON PERSONALITY AND BEHAVIORAL TRAITS.....	8
Discipline	8
Temperance of Aggression.....	10
Figure 2. Pre-Test, Post Test Aggression Scores	14
CONTRIBUTION TO RESILIENCY	15
Total Fitness.....	16
Therapeutic Benefit.....	19
RECOMMENDATIONS TO COMMANDERS.....	22
CONCLUSION.....	24
APPENDIX A.....	28
BIBLIOGRAPHY	29

Acknowledgements

I would like to take the opportunity to recognize those who provided valuable assistance during the lengthy process of researching and writing this paper:

Dr. Rebecca Johnson, my project advisor, for her mentorship, edits, and guidance that contributed greatly to the development of my topic and argument.

LtCol Joseph Shusko, USMC (Retired) for his valuable insight on the historical background and current applications of the Marine Corps Martial Arts Program.

I am also grateful to the various individuals that assisted me with data collection from the Operations Analysis Division of the Marine Corps Combat Development Command, Headquarters Marine Corps, and the Naval Safety Center, as well as the countless instructors and training partners over the past twenty plus years that have inspired and encouraged me to pursue martial arts as a lifelong endeavor.

Finally, and most importantly, I would like to thank my wife Beth and our two children for their patience and understanding during the many hours spent working on this project.

Introduction

There is a fairly low probability that Marines, especially those with a non-combat arms/infantry Military Occupational Specialty (MOS), will ever engage in hand-to-hand combat. Despite the odds, commanders are still on the hook to ensure their Marines participate in Marine Corps Martial Arts Program (MCMAP) training to the degree required. In July 2007, All Marines (ALMAR) Activities 034/07 directed both active and reserve components to be trained to Tan Belt in MCMAP by the end of the given year, all infantry trained to Green Belt by the end of Calendar Year (CY) 2008, and all other combat arms Marines trained to Gray Belt by the end of CY 2008.¹ In lieu of further requirement beyond CY 2008, fleet commanders continue to adhere to the directive for a Green and Gray Belt minimum for infantry and combat arms communities respectively. Although designed with the intent to ensure maximum participation, a mandated minimum may ultimately drive program utilization towards a “check in the box” mentality for any unit lacking commander buy-in. A growing belief, particularly among non-combat arms communities, asserts that MCMAP is a hazard to readiness as it puts Marines at-risk for injury with little to no return on investment other than serving as an additional form of physical training (PT). This quandary creates uncertainty and ultimately begs the question of incentive to leaders across the Corps.

The question of whether MCMAP actually generates imperceptible qualities that are appealing enough to justify a commander-endorsed training program beyond the required minimum is worth exploring. Do the non-physical benefits of the Marine Corps Martial Arts Program (MCMAP) outweigh perceived costs? In addition to teaching hand-to-hand fighting techniques and promoting physical fitness, martial arts training cultivates intangible attributes such as positive personality and behavioral traits while simultaneously providing the individual

with tools to strengthen resiliency in preparation for meeting the high demands of the Corps.

MCMAP is relatively young and its value to commanders is still misunderstood by many. In this paper, I provide a brief perspective on the program's origin and core disciplines, and an overview of some common fears and misperceptions. The subsequent sections delve into MCMAP's impact on behavioral and personality traits, as well as its contribution towards developing resiliency. Finally, recommendations are provided to the commander on how best to leverage the benefits of MCMAP, while mitigating risk.

Background

Marine Corps infantrymen are trained to locate, close with, and destroy the enemy by fire and maneuver, or repel the enemy's assault by fire and close combat. From the times of Marines serving as ship boarding parties for the Navy to the hard-fought island hopping campaigns throughout the South Pacific, possession of close-quarter fighting skills has proven both necessary and invaluable. Over the years, the Marine Corps upgraded its instruction in hand-to-hand combat as new and improved methods gained prominence. Marines adopted the Eastern fighting systems that they had been exposed to and were able to systemize and refine the techniques in a manner conducive to training large numbers of troops. Systems of the 1980s and 1990s, such as the linear infighting neural-override engagement (LINE) and the Marine Corps Close Combat Program, paved the way for the program that exists today. Following the vision and guidance of Commandant James L. Jones, a period of testing and review began in June 1999, ultimately culminating in MCMAP in 2002.² Since its official rollout, MCMAP has been used to train Marines starting at the Recruit Depots of Parris Island, South Carolina and San Diego, California for the enlisted ranks, and for the Officers in Quantico, Virginia.

In similar fashion to many of the traditional styles of martial arts, MCMAP instituted a

colored belt ranking system with a requirement for the individual to test for each new belt across the progression of tan, gray, green, brown, and black. Marines are required to not only demonstrate competency in technique, but also possess the maturity, moral character, and in some cases, rank before successful completion of the examination for each belt. The structural similarity with conventional martial arts does not end there. The pursuit of mind, body, and spirit unification is a recognizable characteristic in many forms of traditional martial arts, and MCMAP is no different in this regard. The program aspires to achieve the same result through three primary domains dedicated to the development of the Physical, Mental, and Character Disciplines.

Physical Discipline

The Physical Discipline is composed of two main elements: fighting techniques and the combat conditioning program. Marines, along with subject matter experts (SMEs), selected and incorporated the most effective techniques from various martial arts styles and discarded the rest.

Techniques	Martial Arts Style	Country of Origin
Strikes (Kicks, Punches, Knees, and Elbows)	Karate Muay Thai Taekwondo Western Boxing	Japan Thailand Korea United States
Takedowns and Falls	Judo	Japan
Manipulations (Joint Locks and Immobilizations)	Aikido Jujutsu	Japan Japan
Weapons Work (Offensive and Defensive)	Eskrima Krav Maga	Philippines Israel
Ground Based Grappling (Chokes and Submission Holds)	Brazilian Jiu Jitsu Sambo Wrestling	Brazil Russia United States

Figure 1. Techniques by Style and Origin

The diversity of styles and technical skills are depicted in Figure 1. The instruction method for these fighting techniques is primarily based on repetitive drills of a pre-arranged nature and

supervised free sparring from both standing and ground positions at the advanced levels. Unlike some traditional martial arts, MCMAP avoids introducing an excessive amount of possible counters to prescribed attacks, recognizing that hesitation ensues if one is forced to mentally sort through a multitude of on-call options. The credence paid to rapid reaction along with the muscle memory instilled through repetition leads to an effective system appropriate for the instruction of a large number of troops in a relatively short amount of time.

Marines have long been considered the most physically fit of all US military services, a tag that stimulates identity and acts as a great source of pride. This is partly due to a well-earned reputation, but also predicated on possessing the strictest physical fitness test standards of any service. However, as experts in the field of fitness began to redefine ideas of what “being fit” actually meant, the Marine Corps was on the leading edge of taking notice. While running three miles and performing pull-ups and sit-ups to the standards of the Marine Corps’ Physical Fitness Test (PFT) is no small feat, it is also not completely indicative of the type of functional fitness one might require in combat. The Combat Fitness Test (CFT) and MCMAP Combat Conditioning were introduced to address this “fitness gap.” As a complement to the PFT, the CFT was specifically designed to evaluate strength, stamina, agility, and coordination to measure the functional elements of combat fitness.³ Combat Conditioning mirrors this focus on attribute development by breaking out of the mold set by the more conventional exercises found at the gym. In addition to fighting techniques, MCMAP puts the individual through rigorous conditioning to develop the physical toughness needed to overcome obstacles in life or on the battlefield.

Mental Discipline

The Mental Discipline is composed of two main elements: warfighting and Professional

Military Education (PME). Marine Corps Doctrinal Publication (MCDP) 1, *Warfighting*, is considered the seminal manual and illustrates the US Marine Corps' distinguishing combat philosophy. MCMAP strengthens the foundation of all Marines through reinforcing the art of war as part of its training curriculum. The warfighting element also covers tactical decision-making, force protection, and risk management (RM). Independent study and group discussion of these topics both prior to and on the practice field, martial arts training pit, or indoor wrestling mat, links the Mental and Physical Disciplines while providing the Marines an opportunity to sharpen their knowledge base outside the classroom environment.

Within the PME element of the Mental Discipline, Marines are exposed to martial culture and warrior case studies. Martial culture studies are guided discussions that highlight various societies throughout history, such as the Spartans, Zulus, and Apaches, whose primary intent was the creation, development, training, and sustainment of the warrior.⁴ Warrior case studies are similar; however, the discussions typically involve the selection of battlefield combat citations based on actions occurring within close range of the enemy. This phase is also an opportunity to reiterate the professional reading program and Marine Corps customs, courtesies, and traditions.⁵ The Mental Discipline of MCMAP is designed for Marines to engage their brains and provides a venue for personal and professional development.

Character Discipline

The Character Discipline is composed of two main elements: the Marine Corps core values and leadership-training programs. The Marine Corps' charge is to continue to produce exemplary citizens who act honorably and intelligently, while personifying the ideals upon which the Nation was founded.⁶ While Marines hone their skills for combat, their characters must be aligned with the Marine Corps' warrior ethos. The challenges that exist on the field of

battle today demand more of our most junior Marines, and it is imperative they are properly trained and prepared to confront them. Experiences in Iraq and Afghanistan have revealed the type of impact that a Marine's tactical battlefield actions may have at the strategic level. In order to succeed, Marines must be capable of making independent decisions in extreme situations that are often times subject to nearly instantaneous scrutiny by the court of public opinion vis-à-vis the media and various on-line social networks.⁷ Based on recognition that training in ethics and morality must be sustained throughout a Marine's career, MCMAP is leading the charge to ensure that is done.

In addition to instilling the warrior ethos, MCMAP uses the Character Discipline to develop and refine the Marine Corps' leadership traits and principles. Strong leadership is a hallmark of the Marine Corps and requires continuous nurturing and guidance in order to flourish through future generations. In an effort to help Marines reach their full potential, leadership training, with a focus on mentorship, is designed to enhance cohesion by improving leader-subordinate interactions on a personal and professional level and to ensure Marines maintain the highest standards of behavior on duty, on liberty, and on leave – 24 hours a day, 7 days a week.⁸

Common Fears and Misperceptions

As MCMAP has developed over the past decade, leaders have drawn upon their own individual experiences to render an opinion on its efficacy. This disunity of thought has caused many to question whether the “juice is worth the squeeze.” Two of the more common fears include the perception that MCMAP is time lost that could be otherwise dedicated to more “pressing” requirements and the risk of injury. While many leaders feel overburdened by required and often times monotonous annual training obligations, they must consider that General Jones created MCMAP with the intent to “take rocks out of commander's packs,” not to

arbitrarily add additional weight.⁹ The intent was and is to utilize the MCMAP character tie-ins to accomplish annual requirements while returning valuable time to the units; however, this is seldom done. Likewise, risk of injury has become a hot-button issue. Although this concern is legitimate, the magnitude of this stigma is based on its antiquated characterization as a “beat-down club.”¹⁰ Of the 1,741 injuries reported in 2014, MCMAP training was captured in the narrative of 77 mishaps while activities such as PT, basketball, and football tallied 124, 88, and 87 occurrences respectively.¹¹ These popular athletic endeavors have always possessed the potential to cause unintentional injuries; however, commanders do not discourage or forbid their Marines’ from participation in them as in the case of MCMAP. Due to a dedicated cultural mindset change originating at the Marine Corps’ Martial Arts Center of Excellence (MACE), MCMAP should no longer be regarded as a “tough man’s club.” Dispelling the preceding fears and misperceptions is a separate effort in itself; however, mitigation for each is provided in the recommendations section at the end of this paper.

This background section has introduced the three primary disciplines covered by MCMAP, touched upon some of the advertised outputs, and provided some insight to common fears and misperceptions. To the casual observer, the physical benefits of MCMAP may be readily apparent through a technical demonstration conducted by proficient practitioners; however, this paper is not intended to sell the martial value of this program to any commander straddling the fence on its utility. Regardless of the commander’s level of buy-in, he or she will participate to some extent even if only the required minimum. What I intend to offer are the intangible benefits not showcased on the “glossy brochure.” The overlooked or misunderstood value inherent to MCMAP may be of interest to those merely willing to participate at the extent directed by higher headquarters.

Impact on Personality and Behavioral Traits

The Corps has set forth a six-phase transformation process that starts at recruiting and progresses through sustainment. While the primary focus is to transform civilians into basically trained Marines capable of winning our nation's battles, an additional goal is to create quality citizens who will have a positive impact on society both during and upon completion of faithful service.¹² This transformation process is a continuous quest of self-improvement regardless of whether the Marine serves for three years or thirty. A sustained, focused attention to discipline and character development is particularly relevant amongst non-infantry MOSs due to a higher probability for young Marines to feel disconnected from the warrior ethos that the Corps so diligently aspires to instill during boot camp. While it is highly appropriate to alter the method of delivery, the basic values and principles espoused during initial training should be reinforced to Marines through a supervised, standardized, and structured approach throughout an individual's time in service in order to ensure the commitment to develop the character is fulfilled. MCMAP training contributes to the positive development of behavioral and personality traits through the further refinement of discipline as it relates to conduct and offers the individual a positive outlet to express and relieve the aggression that the Corps demands of its Marines.

Discipline

As the Marine Corps transitions from over thirteen years of fighting in Iraq and Afghanistan to an increased posture in garrison, the Commandant has indicated that discipline is perhaps the most pressing leadership challenge facing the organization. In a letter addressed to all Non Commissioned Officers (NCOs), the 35th Commandant stated that although 98% of Marines are doing the right thing, others are disrupting a return to immediate readiness, soiling

our honor, and causing the American people to lose trust in us through the disregard of orders and standards, substance abuse, sexual assault, hazing, self-destructive behavior, and failure to maintain personal fitness and appearance standards.¹³ While a modest impact may come from initially prescribed efforts such as those aimed to direct all NCOs and above to read and discuss the warfighting and reference publications *Leading Marines* and *Sustaining the Transformation*, increase to the Officer and Staff Non Commissioned Officer (SNCO) presence in the barracks, and instituting a call to enforce existing standards, they seem grossly insufficient in the task of “reawakening the soul of our Corps.” Boredom caused by administrative and bureaucratic minutia, access to social temptations, complacency due to lack of mission, and breakdown of unit cohesion are all potential hazards to discipline that are associated with the return to garrison life. If discipline is a legitimate concern to commanders, perhaps the benefits associated with MCMAP are worthy of further examination and sufficient investment. See Appendix A for supporting material designated as For Official Use Only (FOUO).¹⁴

The positive influence that martial arts training may have on shaping conduct is realized outside of MCMAP as well. The implementation of an after-school martial arts program demonstrated constructive changes across High-Risk and Low-Risk comparison groups in attitude and reported behaviors. Quantitative highlights of these changes include: improved Grade Point Average (GPA) for 50% of program participants (the other 50% maintained GPA), reduced or maintained number of school absences for high risk participants, lowered or stabilized scores on the attitude toward violence measure for 66% and a reduction of the attitude toward conflict measure for 83% of students.¹⁵ From a qualitative perspective the high school principal, teachers, students, and parents conceded the marked improvement and voiced positive sentiment. Examples of this recognition and feeling include the noted drop in referrals as well as parent and

teacher testimonies citing a positive transformation demonstrated through improvement in attitudes and mindfulness in the classroom and at home.¹⁶

The stakes for a breach in discipline are much higher for Marines than with the rest of the civilian population. As it pertains to conduct, discipline is imperative to ensure that the honor and reputation of the Corps remains intact and for maintaining unit readiness levels. The culture and training of the service demand discipline, as a necessity to rein the aggression required of its members for mission accomplishment.

Temperance of Aggression

The Marines' battle history has cemented the Corps' legacy as a fierce, tenacious fighting organization. Part of that reputation is founded on the sheer aggressiveness demonstrated through violence of action in various conflicts across the globe. Some of this aggression is innately characteristic of the sort of individual the Marine Corps typically attracts. While the calling may be different for each individual, the draw to the Corps in lieu of other competing US military branches is often based on a perception of "toughness" and an underlying predilection to fight. This inherent trait is further developed via training and culture. Through experiences like the Crucible, Marine recruits sharpen their aggressive spirits as they are forced to exceed personal limitations by way of perseverance and courage.¹⁷ One of the Corps' most commonly heard expressions of enthusiasm "Ooh Rah" is often replaced with the battle cry "Kill!" This chant demonstrates the aggression that is encouraged within the ranks and valued on the front lines. Although the Corps unquestionably demands a certain level of aggression for its Marines to fight effectively, there must also be a concurrent expectation to temper that aggression in a responsible manner.

While aggression is noted as a desirable trait when properly directed against the enemy,

leaders and their Marines must have an awareness of its undesirable potential if not managed properly. Recognition should be given to the fact that most junior Marines are in their formative years; therefore, a responsibility to educate should accompany any purposefully bred aggression. Without the development of proper coping skills, these individuals may find an outlet through more destructive means such as occurrences of misdirected hostility towards peers, fits of road rage, or even incidents of domestic violence. Anger Management classes are available through Marine Corps Community Services on both a voluntary basis or at the commander's discretion as the result of a specific incident; however, this route is likely to be underutilized due to a persisting stigma in the Marine Corps against forms of counseling. As an alternative, commanders may elect to take advantage of the opportunity that MCMAP provides in this regard.

The premise that routine engagement in the study of hand-to-hand combat may somehow reduce a practitioner's aggression level seems contrary to logic. Renowned psychologist Albert Bandura's social learning theory suggests that learning occurs from the observation, imitation, or modeling of others' actions. According to this concept, the exposure to, and recurring presentation of, the fighting skills fundamental to martial arts training should lead to an increase in aggressiveness; yet, results have shown a decrease in aggression among participants.¹⁸ Through analysis of the existing martial arts research, the factors that appear to have the most significant impact on the effective reduction or management of aggression levels include the continuous commitment of practice and the inclusion of a philosophical aspect based on moral or ethical values.

Several studies examine the effects of martial arts training on hostility and aggression. Through qualitative methods used in two of the referenced studies, evidence concludes that a

decline in hostility and aggression is associated with prolonged training and provides further support to refute the notion that students emulate the aggressive behavior being modeled.¹⁹ Studies noted that beginners attracted to the martial arts were typically more hostile but the hostility declined with the duration of training.²⁰ Based on the assumption that Marine recruits are typically aggressive individuals, prolonged MCMAP training may be a suitable method to temper aggression. Immediate results are an unrealistic expectation for commanders inclined to turn MCMAP training off upon completion of the minimum requirement. For martial arts participants to truly capitalize on this benefit, an ongoing commitment to year-round habitual training is required.

Studies also indicate that the underlying philosophical values inherent within the style of practice plays a significant role in determining the extent of its merit with regards to aggression. Although several bins could be used to distinguish the arts, the categories of traditional and modern have perhaps the most utility. The inclination to superficially label traditional martial arts as old and/or of eastern descent is obvious; however, the truly valued distinction lies in the philosophical, mental and moral aspects. Traditional arts typically share several common points such as an emphasis on mind, body, and spirit unification; the use of skills reserved for self-defense only; negative attitudes against excessive force; respect for self and other people; humility, patience and perseverance; and a code of ethics/honor.²¹ Modern arts are typically focused strictly on combative applications or for sport. Based on these definitions MCMAP appears to ride the fence between traditional and modern martial arts. At first glance, classifying MCMAP as a modern art makes sense due to its young age and focus on combative applications. A case could be made for either categorization; however, the additional emphasis on mental and moral development distinguishes MCMAP from modern arts and simultaneously enables the

Corps to cash-in on the benefits most typically aligned with traditional arts.

Data indicates that a significant factor between traditional and modern arts as it relates to aggression, is the inclusion of a philosophical training component. The findings of an initial study compared aggression deltas of a traditional martial arts group to that of a modern martial arts group over a given period of time. The qualitative personality inventory demonstrated a reduction in aggression for the traditional martial arts students, while students of the modern martial arts group had a large increase when compared to pre-test data.²² While this finding may initially raise an eyebrow of concern, particularly for those subscribing to the notion that MCMAP is a modern art, it is important to note that the modern martial art did not possess a philosophical component. A separate study compared aggression deltas for three groups: a traditional martial arts group with a philosophical component, a modern martial arts group with a philosophical component, and a modern martial arts group without a philosophical component. The analysis revealed that the modern arts group possessing a philosophical aspect also showed reduced aggression levels, albeit to a lesser extent than a traditional group, while aggression in a modern arts group lacking a philosophical aspect saw relatively no change.²³ The data in Figure 2 supports the notion that martial training with an inherent philosophical component contributes to reduced aggression levels, regardless of whether the style of art is traditional or modern.

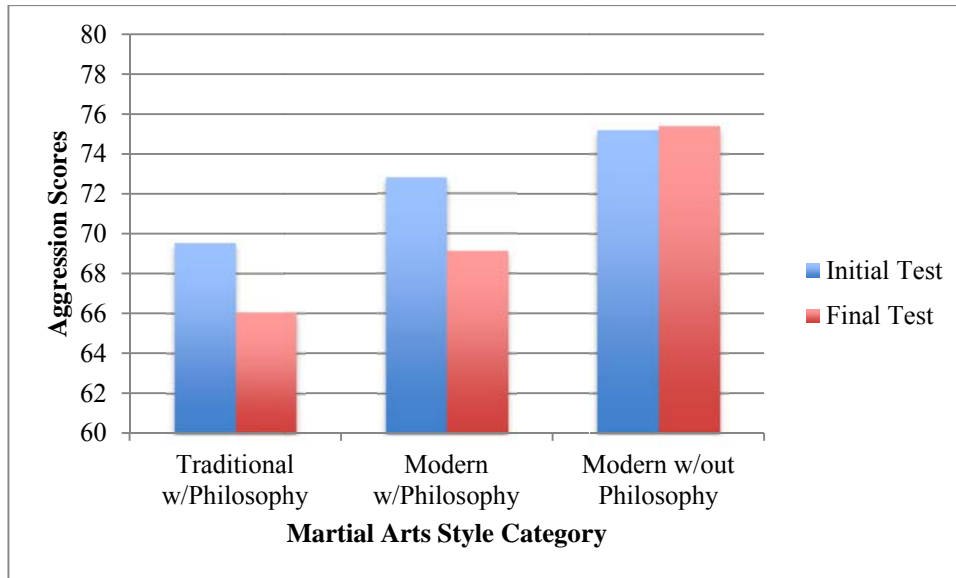


Figure 1. Pre-Test, Post Test Aggression Scores²⁴

A separate self-assessment questionnaire also revealed similar findings to substantiate a claim for the benefit of modern martial arts training with regards to aggression. Although higher overall than traditional Karate students, the aggressiveness levels of Judo sport competitors remained low and moderate, and the Judo students were better able to cope with emotion control and expression as a result of the sport training.²⁵

While also serving as an effective relief valve for pent-up aggression, prolonged participation in martial arts training can lead to behavior growth and healthy personality trait development through sustained focus of discipline. Findings of a grappling study comprised of Wrestling and Jiu Jitsu provides further support by stating that regular combat sports training creates positive personality traits and influences the emotional balance necessary in competitive situations and in life.²⁶ Martial arts training not only leads to a higher quality unit population, it ultimately leads to better-adjusted citizens for eventual return to the American society. Through a foundation of discipline and emotional balance, each MCMAP practitioner is better positioned to build the resiliency necessary to meet the demands of the 21st century Marine Corps.

Contribution to Resiliency

The Corps' involvement in Iraq and Afghanistan over the past thirteen years has undoubtedly taken a toll on its Marines as multiple and often back-to-back tours have incurred physical, mental, and psychological strain on the force. The mental health community widely accepts that the prolonged stress associated with operations of this type is correlated to an increased risk for various stress-induced diseases and emotional difficulties.²⁷ Whether considering the potential family issues caused by separation or actions related to combat, these stressors can accumulate quickly and quietly sneak up on even the hardest individuals. The highest level of military leadership has taken note and taken action to confront this threat to human capital. Concerted efforts to build a more resilient force are key to this aim. In his 2010 guidance, the 35th CMC stated the following:

The conflicts of the 21st Century place tremendous burdens on Marines and Sailors, but these are not the only sources of great stress on our men and women. To improve their resilience, we will work aggressively and creatively to build a training continuum that better prepares them for the inevitable stress of combat operations and to equip them with the necessary skills required to cope with the widely-varying challenges of life as a Marine.²⁸

In accordance with the call to institutionalize resiliency training, the Combat and Operational Stress Control (COSC) program promotes long-term health and well being of the Marine.²⁹ In an effort to understand and enhance resiliency across the spectrum of the stress continuum, five core functions were established: *Strengthen, Mitigate, Identify, Treat, and Reintegrate*.³⁰ When applying resources towards each function, commanders should give serious consideration to the tremendous impact potential MCMAP has regarding the *Strengthen* and *Reintegrate* functions. MCMAP training contributes positively to resiliency development through the promotion of total fitness for the prevention of operational stress and provides therapeutic benefit for recovery in the aftermath of Post Traumatic Stress (PTS).

Total Fitness

The Marine Corps defines resiliency as “the positive capacity of people to cope with stress and catastrophe.”³¹ Each person’s ability to deal with unexpected or difficult challenges differs from the next because the aptitude is formed by various life experiences and from unique circumstances of upbringing. The belief held by MCMAP and traditional martial arts that a strong foundation for personal development is built through a unified mind, body, and spirit, is compatible with the Marine Total Fitness (MTF) concept. MTF is the Corps’ resiliency effort that encompasses the four domains of mind, body, spirit, and social.³² In conjunction with healthy and positive social interactions, the synergy of mind, body, and spirit is recognized as an essential formula for building resiliency.³³ While certain individuals are strong across all four domains, others may be deficient in one or more. The goal of institutionalized resiliency training is to ensure the best skills and tools are available to ALL Marines so that they are better able to cope with the challenges of life in the Corps, whether deployed or in garrison.³⁴ The initiative taken to front-load resiliency firming efforts will pay dividends down-range. The greatest measure commanders may take to prevent their troops from succumbing to stress injury or illness, is the invested commitment to strengthen them before exposure.³⁵ A valued operational stress prevention resource, MCMAP training is readily available to the commander for developing resiliency in the *Strengthen* function. MCMAP’s Mental, Physical, and Character Disciplines directly map to the mind, body, and spirit domains of Marine Total Fitness and indirectly contribute to the social domain through camaraderie developed on the practice fields.

MCMAP directly contributes to the mind domain of Marine Total Fitness with the inclusion of all facets of the Mental Discipline previously outlined in the background section. An additional mental concept that draws benefit from martial arts training not addressed prior is

self-confidence. COSC identifies self-confidence as a key element to developing mental strength.³⁶ In one study examining the self-concept in martial arts students, the students maintained that their training benefited them psychologically and described the change as either an improvement in their confidence or a feeling of greater serenity.³⁷ In a 2007 Marine Corps Gazette article, then Staff Non Commissioned Officer In-Charge (SNCOIC) of the MACE, Master Gunnery Sergeant (MGySgt) Shane T. Franklin posited that the long-associated benefit of self-confidence attributed to martial arts training is readily evident in the Marines who have endured the longest, most challenging training in MCMAP: the Martial Arts Instructor Trainers (MAITs).³⁸

MCMAP contributes directly to the body domain of Marine Total Fitness with the inclusion of all facets of the Physical Discipline previously outlined in the background section. Physical fitness and wellness are critical to ensure one is biologically capable of having the optimal response to a threat via effective and normal functioning of the brain feedback circuits necessary to keep negative emotions, involuntary reflexes, and body-brain activation under control.³⁹ The physical strength and endurance amassed from sparring and drilling the martial arts techniques in conjunction with combat conditioning contribute to strengthening resiliency under the MTF domain of body.

MCMAP contributes directly to the spirit domain of Marine Total Fitness with the inclusion of all facets of the Character Discipline previously outlined in the background section. Naturally, many people assume that developing the spiritual aspect of oneself is inextricably linked to religion. For those interested in pursuing this approach, a chaplain is an excellent resource, but is outside the scope of MCMAP. While spiritual fitness may certainly benefit from one's belief in the divine or through association with a religious community, neither of these are

requirements or even the only paths. A useful confirmation of this sentiment is resident in the Air Force definition of spiritual fitness: “the ability to adhere to beliefs, principles, or values needed to preserve and prevail in accomplishing mission.”⁴⁰ The Marine Corps recognizes that a firm trust in moral values and ethics is a strong basis for fitness of spirit and that believing one is on the right side of conflict is an important factor of resilience.⁴¹ MCMAP’s enduring commitment to ethical and moral principles through cultivation of the warrior ethos contributes to strengthening resiliency under the MTF domain of spirit.

Although MCMAP does not explicitly include the social domain, as MTF does, MCMAP undoubtedly contributes to it through the camaraderie developed on the playing fields, practice mats, and training pits across the Marine Corps. This impression is further substantiated by a RAND Corporation study that noted military units pursuing resiliency should dedicate greater commitment to valuing camaraderie.⁴² The social benefits of martial arts training revealed in one study concluded that martial arts training not only provides a healthy social environment, but can also help individuals form a positive identity through peer interaction and personal development.⁴³ Defined as “the capacity to foster, engage in, and sustain positive relationships and to endure and recover from life stressors and social isolation,” social resilience leads to growth through coordinated social responses to challenging situations.⁴⁴ The commitment to instill the warrior ethos as a means of identification builds a sense of belonging to something bigger than oneself and strengthens the social bond.⁴⁵ The opportunity to overcome challenges and the endured hardships shared amongst trainees during MCMAP combat conditioning and sparring sessions, contribute to strengthening resiliency under the MTF social domain.

MCMAP training provides the commander a valuable operational stress prevention resource for developing resiliency through promotion of all four Marine Total Fitness domains.

Leaders have minimal resources at their disposal and are encouraged to consider the potential impact MCMAP training can have on overall fitness. The 2011 *Wellness in the Workplace* report from the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) cited MCMAP as an option for military health care providers to address occupational stress and serves as further endorsement of its bearing.⁴⁶ Through the synergy of disciplines, MCMAP strengthens resiliency as a preventative measure to combat stress and injury and additionally offers therapeutic aspects in the event of exposure.

Therapeutic Benefit

As of October 30, 2014 the number of US Servicemember deaths as a result of actions in Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and Operation New Dawn (OND) has reached 6,824 while the number of those wounded in action (WIA) has reached a staggering total of 52,281.⁴⁷ Of the returning wounded many are left with visible reminders of their injuries as evidenced by the 1,573 major limb amputations on record.⁴⁸ While these statistics are typically front and center, countless more veterans suffer from psychological injuries stemming from combat and operational stress that are hidden to all except the afflicted.⁴⁹ Post Traumatic Stress Disorder (PTSD) is “an anxiety disorder associated with serious traumatic events and characterized by such symptoms as survivor guilt, reliving the trauma in dreams, numbness, avoidance, or recurrent thoughts and images.”⁵⁰ Cases of veterans diagnosed with PTSD have captured national attention. As of September 5, 2014 incident cases of PTSD among OIF, OEF, and OND Servicemembers has reached 128,496 since 2002 with the Veterans Administration (VA) accounting for 337,285 veterans eligible to access VA health care as of June 30, 2014.⁵¹ Matters are further complicated in that some veterans may experience PTS symptoms without reaching the threshold for a clinical diagnosis of PTSD. A commitment to

ensuring proper reintegration for our men and women returning from the battlefield rests squarely on the shoulders of Marine Corps leadership and may be accomplished through access to effective coping tools. MCMAP provides the commander a valued resource for assisting recovery in the *Reintegrate* function through its therapeutic benefits in the wake of PTS.

Leaders are encouraged to create a climate in which the reporting of stress injury is as automatic to Marines as reporting a gunshot wound or broken leg.⁵² While it is safe to say the eradication of the stigma has not reached that level yet, awareness of stress injury and the means to address it is on the rise.⁵³ The administration of pharmaceutical and psychological treatment remains in the capable hands of medical professionals; however, other options with proven results are available. A 2011 study of 38,883 military members revealed through pre- and post-training questionnaires that 20 minutes of vigorous exercise weekly reduced the odds ratio for the arousal of PTSD symptoms.⁵⁴ Many forms of exercise may be capable of achieving these results; however, ample data and anecdotal evidence exists to suggest that the benefits of martial arts training makes MCMAP a viable, compelling option for Marines suffering from PTS.

As an illustration, Mixed Martial Arts (MMA) has garnered national attention for its impact in this field. Much like MCMAP, MMA adopts the most effective fighting techniques from across all the various disciplines, but is ultimately expressed through a rule based competitive form. In addition to being among one of America's fastest rising sports with male and female participants alike, testimonials from both veterans and MMA athletes highlight the benefits for PTS and depression that some attribute to the ability to experiencing "emotional catharsis through physical means."⁵⁵

A veteran of three tours in Iraq, former Army medic Kyle Dubay was diagnosed with PTSD and suffered with anger, depression, anxiety, and flashbacks before finding a MMA gym

called the Spartan Academy that works with veterans struggling with PTS in Tempe, Arizona.⁵⁶ Dubai noted a difference after the first day of training, stating that he was able to deal with “the bad energy inside him” that medication and therapy alone were unable to address.⁵⁷ Fortunately, the Spartan Academy is not the only gym of its kind. The San Diego based MMA group Pugilistic Offensive Warrior or P.O.W., offers a similar service geared exclusively to veterans and free of charge.⁵⁸ P.O.W. was founded by a veteran of Iraq to cope with his own struggle with PTSD. In a promising sign of awareness and progress, efforts directed at serving America’s veterans living with PTS are beginning to emerge in martial arts styles outside of MMA, such as Aikido and Brazilian Jiu Jitsu.⁵⁹ Jeffrey Matloff, San Diego Department of Veterans Affairs senior psychologist and PTSD specialist, states, “When it comes to PTSD, therapy alone doesn’t have all the answers,” and assuming veterans apply self-control of their skills outside the sports context, “a martial arts approach can help restore self-confidence and focus.”⁶⁰ Naval Medical Center San Diego’s Comprehensive Combat and Casualty Care facility psychologist, Nancy Kim, adds that the controlled sparring, “assists wounded warriors to evoke the competitive warrior identity and spirit that may have become latent when the service member was injured.”⁶¹ MACE leadership echoes this sentiment as MCMAP training has contributed to the recovery of a number of Wounded Warriors by allowing them to “be a Marine again.”⁶² Regardless of why martial arts training works, the potential for assisting countless veterans with PTSD and depression seems real.⁶³

In the aftermath of PTS, the therapeutic benefits of martial arts training are available to the commander through the off-the-shelf employment of MCMAP as a reintegration enabler. Leaders owe it to their troops to consider any and all viable options that may provide positive and healthy mechanisms for coping. While not a substitute for traditional PTSD therapy or

medication, martial arts training shows promise as a potent means to complement the treatment.

MCMAP is a legitimate contributor to resiliency development through its inherent promotion of Marine Total Fitness ideals and the therapeutic benefits that support a successful return to form. As the nature of war does not change, neither will the danger, chaos, mental, nor moral strains subside. Mission accomplishment depends on fit Marines who are ready to face impending challenges and able to recover from adversity. MCMAP can assist this objective by imparting a solid foundation of moral, spiritual, and physical fitness, and also serve as a restorative outlet of support upon return from harm's way. Commanders have a valuable tool at their disposal and through increased exposure and use of best practices; MCMAP can leverage latent yet previously unrecognized results.

Recommendations to Commanders

This section provides recommendations to the commander for leveraging the benefits of MCMAP, while mitigating their risk.

- 1) *Commitment to Ongoing Training*: The preceding conclusions point to consistent and ongoing martial arts training as a contributing factor for the temperance of aggression. For commanders to truly reap the intangible benefits of martial arts training, the commitment to persistent MCMAP training beyond the required minimum is essential. Just as the physical applications are not absorbed immediately, we should not expect the mental and moral aspects to be either.
- 2) *Increased emphasis on Values Training*: The preceding conclusions suggest that martial arts training with an emphasis on a morally and ethically based philosophy contributes to the temperance of aggression and strengthens resiliency. Commanders should emphasize to their MAITs and Martial Arts Instructors (MAI) the desire to make values-based

training a key focus of the unit's martial arts syllabus. If desired, commanders may suggest that the chaplain, Sergeant Major (SgtMaj), or selected officers contribute to the character tie-in presentations if additional perspective or expertise may be offered.

- 3) *Increased emphasis on cooperative training:* Commanders should impart to unit MAITs and MAIs the importance of fostering a safe, positive training environment conducive to Marines of all skill levels. Marines cannot approach the execution of joint locks, throws to the deck, and chokes with the same vigor as a pugil stick bout in boot camp. If Marines execute techniques at 100% strength against 100% non-compliant partners, people will get hurt. This obvious fact is by no means an endorsement to train ineffectively by simply “going through the motions”; however, Marines must be encouraged to train smart. MAITs and MAIs should explore offering various types of training opportunities, such as a “drilling only” class and a “sparring only” class. “Drilling only” classes would be available for Marines to simply perform repetitions of techniques while “sparring only” classes would enable leadership to ensure that supervision and necessary safety precautions are secured ahead of time. Beginner, intermediate, and advanced levels can differentiate the expected tempo of the “sparring only” class, with participants further divided by ten-pound increment weight classes (160-169, 170-179, etc.) to ensure mismatches of size, weight and strength are not grossly disproportionate. Although all participants would still be required to spar to some extent for the advancement of belts, this distinction would enable more opportunities to train across varying comfort and competency levels.
- 4) *Maximize use of time through concurrent completion of mandatory annual requirements:* Commanders should capitalize on the opportunity to accomplish annual training

requirements concurrently through MCMAP. This goal can be accomplished by empowering MAITs and MAIs to sign off Marines on annual requirements such as equal opportunity, fraternization, hazing, substance abuse, and suicide as part of the associated character tie-ins. As opposed to herding Marines into the distraction-rich environments of crowded auditoriums to listen to the same briefings year after year, these topics can be discussed at the conclusion of a MCMAP training session where commanders get the additional benefit of retention. Research shows that the increase of blood and oxygen caused by exercise increases cognitive function, as the hippocampus, the part of the brain responsible for learning and memory, becomes highly active.⁶⁴

Conclusion

Martial Arts provide the user benefits beyond the tangible provisions of hand-to-hand combat and physical conditioning by developing healthy personality and behavioral traits and bolstering the resiliency required to overcome the impending challenges and adversity that comes with serving in the Marine Corps. Leaders of units outside of combat-arms should embrace MCMAP, not for the probability of engagement in unarmed combat, but for the outlet it provides and the fire that keeps the warrior ethos kindling burning. Fiscal austerity and the challenges of the 21st Century battlefield demand a leaner, more agile Corps. Marines must always be ready to fight, and MCMAP is an available resource to all commands that if nurtured and supported, can contribute to the overall betterment of the individual. It is up to leaders to commit to the investment; the cost is only to pay more than the minimum.

Endnotes

¹ Commandant of the Marine Corps, *ALMAR 034/07*, Marine Corps Martial Arts Program Update (July 16, 2007).

² Marine Corps Reference Publication 3-02B, *Marine Corps Martial Arts Program*. Washington,

DC: Headquarters US Marine Corps, (21 November 2011), 1-2.

³ Commandant of the Marine Corps, *Marine Corps Physical Fitness Program*, MCO 6100.13 w/CH1, 01 August 2008, 3-1.

⁴ Commandant of the Marine Corps, *Marine Corps Martial Arts Program*, MCO 1500.59, 15 November 2010, 1-1.

⁵ Commandant of the Marine Corps, *Marine Corps Martial Arts Program*, MCO 1500.59, 15 November 2010, 1-1.

⁶ Commandant of the Marine Corps, *Marine Corps Values Program*, MCO 1500.56, 16 December 1996, 2.

⁷ Krulak, Charles C, "The Strategic Corporal Leadership in the Three-Block War." *Leatherneck* 96, no. 4 (April 2013): 21.

⁸ Commandant of the Marine Corps, *Marine Corps Mentoring Program*, MCO 1500.58, 13 February 2006, 2.

⁹ Joseph Shusko (MCMAP Deputy), interview by the author, February 20, 2015.

¹⁰ Shusko, interview by the author, February 20, 2015.

¹¹ Freedom of Information Act Case 2015-NSC-92; DON-NAVY-2015-003844, (Naval Safety Center, March 27, 2015).

¹² Commandant of the Marine Corps, *Recruit Training*, MCO 1510.32F, 20 December 2012, 1.

¹³ General James F. Amos, "The Reawakening." (CMC letter presented to Non Commissioned Officers, Quantico, VA, October 2013).

¹⁴ Headquarters, United States Marine Corps, "Assessing the Effectiveness of the Marine Corps Martial Arts Program on Unit Performance," Operations Analysis Division. (Marine Corps Combat Development Command, 2013), 44, 48, 51.

¹⁵ Jerimy G. Blowers, "Impact on an After-School Martial Arts Program on At-Risk Students." (Doctoral dissertation, North Central University, 2007), 81, 86, 90.

¹⁶ Blowers, "Impact on an After-School Martial Arts Program on At-Risk Students," (Doctoral dissertation, North Central University, 2007), 101.

¹⁷ Marine Corps Reference Publication 6-11D, *Sustaining the Transformation*, Washington, DC: Headquarters US Marine Corps (06 October 2014), 22.

¹⁸ Ellen Mastrostefano-Curran, "A Cathartic Theory of Aggression: Martial Arts as a Strategy for Preventing School Violence." (Doctoral dissertation, University of Hartford, 2004), 54.

¹⁹ Richard N. Carrera, *Effects of Martial Arts Training on Expression and Control of Violence*, University of Miami Department of Psychology Final Report. Alexandria, VA: (U.S. Army Research Institute for the Behavioral and Social Sciences, November, 1987), 25, 29; K. Daniels and E.W. Thornton. "An Analysis of the Relationship Between Hostility and Training in the Martial Arts." *Journal of Sports Sciences* 8, no. 2 (1990), 95.

²⁰ K. Daniels and E.W. Thornton, "An Analysis of the Relationship Between Hostility and Training in the Martial Arts," *Journal of Sports Sciences* 8, no. 2 (1990), 95

²¹ Steve Mermimi, "Philosophy as a Mediating Factor of Aggression Reduction in Traditional and Non-Traditional Martial Arts Training." (Master's thesis, Kean University, 1997) 1.

²² Mastrostefano-Curran, "A Cathartic Theory of Aggression: Martial Arts as a Strategy for Preventing School Violence," 55.

²³ Mermimi, "Philosophy as a Mediating Factor of Aggression Reduction in Traditional and Non-Traditional Martial Arts Training," 18.

²⁴ Mermimi, "Philosophy as a Mediating Factor of Aggression Reduction in Traditional and

Non-Traditional Martial Arts Training,” 16.

²⁵ Agnieszka Daniluk, Artur Litwiniuk, Wieslaw Blach, and Zbigniew Obminski, “The Level of Anger Experienced by the Champions Training Judo Measured by Spielberger’s Staxi-2 Test.” *Journal of Combat Sports and Martial Arts* Volume 4 (2013), 78.

²⁶ Artur Litwiniuk, Agnieszka Daniluk, Wojciech J. Cynarski, and Ejgil Jespersen, “Structure of Personality of Person Training Ju-Jitsu and Wrestling.” *Archives of Budo: Science of Martial Arts and Extreme Sports* volume 5 (2009): 139, 141.

²⁷ Evette Pinder, Angela Gilbert, Jeffrey Rhodes, David Brown and Mark Bates, “*Worksite Health Promotion: Wellness in the Workplace*,” Arlington, VA: Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, (April 2011), 7.

²⁸ Commandant of the Marine Corps, *35th Commandant of the Marine Corps: Commandant’s Planning Guidance*, 2010, 9.

²⁹ Commandant of the Marine Corps, *Combat and Operational Stress Control Program*, MCO 5351.1, 22 February 2013, 2.

³⁰ Marine Corps Reference Publication 6-11C, *Combat and Operational Stress Control*, Washington, DC: Headquarters US Marine Corps, 20 December 2010, 1-15.

³¹ Commandant of the Marine Corps, *Marine Corps Semper Fit Program Manual*, MCO 1700.29, 08 January 2013, A-7.

³² Commandant of the Marine Corps, *Combat and Operational Stress Control Program*, 1-3.

³³ Jerilynn Campos, “Resiliency: Marine Total Fitness,” Marine Corps Family Team Building, Iwakuni, Japan, 2012.

³⁴ Commandant of the Marine Corps, *35th Commandant of the Marine Corps: Commandant’s Planning Guidance*, 12.

³⁵ Marine Corps Reference Publication 6-11C, *Combat and Operational Stress Control*, 2-1.

³⁶ Marine Corps Reference Publication 6-11C, *Combat and Operational Stress Control*, 2-6.

³⁷ David Stuart Prince, “Self Concept in Martial Arts Students,” Ph.D. Dissertation, Adler School of Professional Psychology, 1995, 47.

³⁸ Shane T. Franklin, “Martial Arts: The Marine Corps Martial Arts Program Has Matured,” *Marine Corps Gazette* 91, no. 3 (March 2007), 24.

³⁹ Marine Corps Reference Publication 6-11C, *Combat and Operational Stress Control*, 2-6.

⁴⁰ Douglas Yeung and Margret T. Martin, “Spiritual Fitness and Resilience: A Review of Relevant Constructs, Measures, and Links to Well-Being,” Library of Congress Control Number: 2013950810. Washington, DC: RAND Project AIR FORCE, 2013, 5.

⁴¹ Marine Corps Reference Publication 6-11C, *Combat and Operational Stress Control*, 2-7.

⁴² Yeung and Martin, “Spiritual Fitness and Resilience: A Review of Relevant Constructs, Measures, and Links to Well-Being,” 33.

⁴³ Prince, “Self Concept in Martial Arts Students,” 50.

⁴⁴ John T. Cacioppo, Harry T. Reis, and Alex J. Zautra, “Social Resilience: The Value of Social Fitness with an Application to the Military,” *American Psychologist* 66, no. 1, January 2011, 44.

⁴⁵ Juergen M. Lukas, Keith W. Pankhurst, and Michael S. Hogg, “Mental Armor for Today’s Warrior,” *Marine Corps Gazette* 91, no. 7 (July 2007): 35.

⁴⁶ Pinder, Gilbert, Rhodes, Brown and Bates, “*Worksite Health Promotion: Wellness in the Workplace*,” 18,19.

⁴⁷ Hannah Fischer, *A Guide to U.S. Military Casualty Statistics: Operation Inherent Resolve, Operation New Dawn, Operation Iraqi Freedom, and Operation Enduring Freedom*,

CRS Report for Congress RS22452. Washington, DC: Congressional Research Service, November 20, 2014, 1.

⁴⁸ Fischer, *A Guide to U.S. Military Casualty Statistics: Operation Inherent Resolve, Operation New Dawn, Operation Iraqi Freedom, and Operation Enduring Freedom*, 6.

⁴⁹ David Gibson and Judy Malana, "Spiritual Injuries: Wounds of the American Warrior on the Battlefield of the Soul," in *Aspects of Leadership: Ethics, Law, and Spirituality*, eds. Carroll Connelley and Paolo Tripoldi (Quantico, VA: Marine Corps University Press, 2012), 343.

⁵⁰ Edward A. Brusher, "Combat and Operational Stress Control," *International Journal of Emergency Mental Health* 9, no. 2 (2007): 113.

⁵¹ Hannah Fischer, *A Guide to U.S. Military Casualty Statistics: Operation Inherent Resolve, Operation New Dawn, Operation Iraqi Freedom, and Operation Enduring Freedom*, CRS Report for Congress RS22452. Washington, DC: Congressional Research Service, November 20, 2014, 1; Veterans Health Administrations, Department of Veterans Affairs. "Analysis of VA Health Care Utilization among Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) Veterans," Epidemiology Program, Post-Deployment Health Group. Office of Public Health, September 2014, 10; Shira Maguen and Brett Litz, "Moral Injury in Veterans of War," *PTSD Research Quarterly* 23, no. 1 (2012): 1.

⁵² Frank J. Tortorello, Jr. "Stress and Resilience in the U.S. Marine Corps: The Corps is Missing An Opportunity," *Marine Corps Gazette* 98, no. 6 (June 2014): 30.

⁵³ Terri Tanielian and Lisa H. Jaycox, "Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery," Washington, DC: RAND Center for Military Health Policy Research, 2008, 247.

⁵⁴ Heidi A. McGuigan, "PTSD and Depression in Military Members and Recommendations for Program Evaluation of Evidence-Based Treatment," DNS Dissertation, University of Arizona, 2013, 117.

⁵⁵ Bret A. Moore, "Kevlar for the Mind: MMA, yoga may offer benefits as PTSD treatment," *Marine Corps Times*, August 14, 2013.

⁵⁶ Renee Montagne, "Mixed Martial Arts Helps Some Veterans With PTSD," *Morning Edition*, National Public Radio, November 22, 2012. <http://search.proquest.com>

⁵⁷ Montagne, "Mixed Martial Arts helps some Veterans with PTSD," National Public Radio.

⁵⁸ David Gilkey, "First Rule of this Fight Club, You Must be a Veteran," *All Things Considered*, National Public Radio, August 22, 2014.

<http://www.npr.org/2014/08/22/341875315/hardcore-therapy-veterans-join-a-fight-club>

⁵⁹ "Aikido for Veterans: The Power of Harmony," www.aikidoforveterans.org; Aurora Ford, "Veterans with PTSD are Learning Brazilian Jiu Jitsu," *Fightland* (blog), November 12, 2013, <http://fightland.vice.com/blog/veterans-with-ptsd-are-learning-brazilian-jiu-jitsu>

⁶⁰ Tony Perry, "Fight Club Reawakens and Channels Veterans' Warrior Spirit," *Los Angeles Times*, September 10, 2012.

<http://articles.latimes.com/2012/sep/10/local/la-me-veterans-fight-club-20120911>

⁶¹ Perry, "Fight Club Reawakens and Channels Veterans' Warrior Spirit," *L.A. Times*.

⁶² Shusko, interview by the author, February 20, 2015.

⁶³ Moore "Kevlar for the Mind: MMA, yoga may offer benefits as PTSD treatment."

⁶⁴ Justin Rhodes, "Why do I think Better after I exercise?" *Scientific American Mind* 24, no. 3 (June 2013).

Appendix A

Appendix A is a separate document, designated FOUO, that references supporting material with regards to MCMAP's impact on discipline from the Marine Corps Combat Development Command, Operations Analysis Division's 2013 report: "Assessing the Effectiveness of the Marine Corps Martial Arts Program on Unit Performance."

Bibliography

- Amos, General James F. "The Reawakening." Letter presented to Non Commissioned Officers, Quantico, VA, October 2013.
- Blowers, Jerimy G. "Impact on an After-School Martial Arts Program on At-Risk Students." Ph.D. dissertation, North Central University, 2007. <http://search.proquest.com>
- Brusher, Edward A. "Combat and Operational Stress Control." *International Journal of Emergency Mental Health* 9, no. 2 (2007): 111-122.
- Cacioppo, John T., Harry T. Reis, and Alex J. Zautra. "Social Resilience: The Value of Social Fitness with an Application to the Military." *American Psychologist* 66, no. 1 (January 2011): 43-51.
- Campos, Jerilynn. "Resiliency: Marine Total Fitness." Marine Corps Family Team Building, Iwakuni, Japan, 2012.
- Carrera, Richard N. *Effects of Martial Arts Training on Expression and Control of Violence*. University of Miami Department of Psychology Final Report. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, November, 1987. <http://www.dtic.mil>
- Commandant of the Marine Corps, 35th *Commandant of the Marine Corps: Commandant's Planning Guidance*, 2010.
- Commandant of the Marine Corps, *Marine Corps Martial Arts Program Update* ALMAR 034/07, 16 July 2007.
- Commandant of the Marine Corps. *Marine Corps Values Program*, MCO 1500.56, 16 December 1996.
- Commandant of the Marine Corps. *Marine Corps Mentoring Program*, MCO 1500.58, 13 February 2006
- Commandant of the Marine Corps. *Marine Corps Martial Arts Program*, MCO 1500.59, 15 November 2010.
- Commandant of the Marine Corps. *Recruit Training*, MCO 1510.32F, 20 December 2012.
- Commandant of the Marine Corps. *Marine Corps Semper Fit Program Manual*, MCO 1700.29, 08 January 2013.
- Commandant of the Marine Corps. *Combat and Operational Stress Control Program*, MCO 5351.1, 22 February 2013.

- Commandant of the Marine Corps. *Marine Corps Physical Fitness Program*, MCO 6100.13 w/CH1, 01 August 2008.
- Daniels, K, and E.W. Thornton. "An Analysis of the Relationship Between Hostility and Training in the Martial Arts." *Journal of Sports Sciences* 8, no. 2 (1990), 95-101.
- Daniluk, Agnieszka, Artur Litwiniuk, Wieslaw Blach, and Zbigniew Obminski. "The Level of Anger Experienced by the Champions Training Judo Measured by Spielberger's Staxi-2 Test." *Journal of Combat Sports and Martial Arts* Volume 4 (2013), 75-79.
- Fischer, Hannah. *A Guide to U.S. Military Casualty Statistics: Operation Inherent Resolve, Operation New Dawn, Operation Iraqi Freedom, and Operation Enduring Freedom*. CRS Report for Congress RS22452. Washington, DC: Congressional Research Service, November 20, 2014. <https://www.fas.org/sgp/crs/natsec/RS22452.pdf>
- Franklin, Shane T. "Martial Arts: The Marine Corps Martial Arts Program Has Matured." *Marine Corps Gazette* 91, no. 3 (March 2007), 22-24. <http://search.proquest.com>
- Gibson, David and Judy Malana. "Spiritual Injuries: Wounds of the American Warrior on the Battlefield of the Soul," in *Aspects of Leadership: Ethics, Law, and Spirituality*, eds. Carroll Connelley and Paolo Tripoldi (Quantico, VA: Marine Corps University Press, 2012), 343-376.
- Headquarters, United States Marine Corps. "Assessing the Effectiveness of the Marine Corps Martial Arts Program on Unit Performance." Operations Analysis Division. Marine Corps Combat Development Command, 2013.
- Krulak, Charles C. "The Strategic Corporal Leadership in the Three-Block War." *Leatherneck* 96, no. 4 (April 2013): 18-23. <http://search.proquest.com>
- Litwiniuk, Artur, Agnieszka Daniluk, Wojciech J. Cynarski, and Ejgil Jespersen. "Structure of Personality of Person Training Ju-Jitsu and Wrestling." *Archives of Budo: Science of Martial Arts and Extreme Sports* volume 5 (2009): 139-141.
- Lukas, Juergen M., Keith W. Pankhurst, and Michael S. Hogg. "Mental Armor for Today's Warrior." *Marine Corps Gazette* 91, no. 7 (July 2007): 34-39. <http://search.proquest.com>
- Maguen, Shira and Brett Litz. "Moral Injury in Veterans of War." *PTSD Research Quarterly* 23, no. 1 (2012): 1-6. <http://www.ptsd.va.gov/professional/newsletters/research-quarterly/v23n1.pdf>
- Marine Corps Reference Publication 3-02B. *Marine Corps Martial Arts Program*. Washington, DC: Headquarters US Marine Corps, 21 November 2011.

- Marine Corps Warfighting Publication 6-11. *Leading Marines*. Washington, DC: Headquarters US Marine Corps, 01 August 2014.
- Marine Corps Reference Publication 6-11C. *Combat and Operational Stress Control*. Washington, DC: Headquarters US Marine Corps, 20 December 2010.
- Marine Corps Reference Publication 6-11D. *Sustaining the Transformation*. Washington, DC: Headquarters US Marine Corps, 06 October 2014.
- Mastrostefano-Curran, Ellen. "A Cathartic Theory of Aggression: Martial Arts as a Strategy for Preventing School Violence." Ph.D. dissertation, University of Hartford, 2004.
<http://search.proquest.com>
- McGuigan, Heidi A. "PTSD and Depression in Military Members and Recommendations for Program Evaluation of Evidence-Based Treatment." DNS Dissertation, University of Arizona, 2013. <http://search.proquest.com>
- Mermini, Steve. "Philosophy as a Mediating Factor of Aggression Reduction in Traditional and Non-Traditional Martial Arts Training." Master's Thesis, Kean University, 1997.
<http://search.proquest.com>
- Moore, Bret A. "Kevlar for the Mind: MMA, yoga may offer benefits as PTSD treatment." *Marine Corps Times*. August 14, 2013.
<http://archive.marinecorpstimes.com/article/20130814/OFFDUTY/308140031/Kevlar-Mind-MMA-yoga-may-offer-benefits-PTSD-treatment>
- Pinder, Evette, Angela Gilbert, Jeffrey Rhodes, David Brown and Mark Bates. "*Worksite Health Promotion: Wellness in the Workplace*." Arlington, VA: Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, April 2011.
www.dcoe.health.mil
- Prince, David Stuart. "Self Concept in Martial Arts Students." Ph.D. Dissertation, Adler School of Professional Psychology, 1995.
<http://search.proquest.com>
- Rhodes, Justin. "Why do I think Better after I exercise?" *Scientific American Mind* 24, no. 3 (June 2013).
<http://www.scientificamerican.com/article/why-do-you-think-better-after-walk-exercise/>
- Shusko, Joseph C. "The Ethical Warrior of the 21st Century." *Marine Corps Gazette* 91, no. 2 (February 2007): 20-23.
<http://search.proquest.com>
- Tanielian, Terri and Lisa H. Jaycox. "Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery." Washington, DC: RAND Center for Military Health Research, 2008. www.rand.org

Tortorello, Frank J. Jr. "Stress and Resilience in the U.S. Marine Corps: The Corps is Missing An Opportunity." *Marine Corps Gazette* 98, no. 6 (June 2014): 30-33.
<http://search.proquest.com>

Veterans Health Administrations, Department of Veterans Affairs. "Analysis of VA Health Care Utilization among Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) Veterans." Epidemiology Program, Post-Deployment Health Group. Office of Public Health, September 2014.
www.publichealth.va.gov/epidemiology

Yeung, Douglas and Margret T. Martin. "Spiritual Fitness and Resilience: A Review of Relevant Constructs, Measures, and Links to Well-Being." Library of Congress Control Number: 2013950810. Washington, DC: RAND Project AIR FORCE, 2013. www.rand.org