



Air Force Combatives: An Examination of Self-Efficacy and Delivery of Women into Combat Roles

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Abstract: This study examines students' development of self-efficacy in gender-integrated versus segregated combatives training at the United States Air Force Academy (USAFA). Utilizing a mixed-methods approach, the research compares self-efficacy changes in cadets who participated in gender-segregated (2017) and gender-integrated (2018) combatives classes. Quantitative data, collected through pre- and post-test combat-specific self-efficacy scales, were analyzed to assess changes by training type and gender. Qualitative data, gathered from interviews and field notes, were thematically examined to understand cadet experiences in the integrated setting. Results indicate that combatives training improves participants' combat self-efficacy, particularly when courses are gender integrated. Furthermore, the study identified three key themes—experiencing new emotions, developing interpersonal skills, and facing stress together—which likely contribute to both self-efficacy and the perceived legitimacy of the warrior role among male and female cadets. Findings support the efficacy of gender-integrated combatives training and offer insights for effectively preparing women for combat roles.

Disclaimer

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Introduction

As the U.S. military strives for a male and female integrated force, the imperative for women's greater representation in senior leadership positions increases. Yet, historical barriers to this ascension persist (Do et al., 2013; Brownson, 2014; King & DiNitto, 2019; Do & Samuels, 2021). Only sixteen percent of the U.S. military is comprised of women (U.S. Government Accountability Office, 2020). In the United States Air Force (USAF), the service with the highest representation of women, only ten percent of general officer (GO) positions are held by women, with this proportion reduced to one percent for minority women officers (Military One Source, 2023). Command positions and combat-relevant work are the primary organizational avenues for high level leadership positions in the military (Baldwin, 1996; U.S. Government Accountability office, 2022). Although all military combat roles have been open to women since 2016, women remain underrepresented in combat and operations career fields that historically lead to senior leadership positions such as squadron, group, and wing command (Kelty & Segal, 2013; Air Force Inspector General, 2021; Department of Defense 2016). While changes to the system are attracting women to these roles and supporting the ones already in them, building self-efficacy in combat-related skills could be a key strategy to encourage more interest and representation for women. In this article, we suggest that integrated (co-ed) combatives training is an important step in bolstering women's combat presence in the United States Air Force. We also assert that combatives training bolster's self-efficacy, which is crucial for a lethal fighting force.

A Note on Language

This article uses binary language around gender due to the historical structure of the military, which has traditionally operated within a framework of binary gendered division in training, roles, and jobs. This language is necessary to accurately address the impact of training and its implications on military culture and practice.

Underrepresentation of Women in Combat Roles

One potential reason for the continued underrepresentation of women in the military is the difficulty in recruiting and retaining women into combat roles (Moore, 2020). The Center for New American Security (Swick & Moore, 2018) claims the low retention rate of women in all career fields, but especially combat arms roles, will be a long-standing impediment to the readiness of defense organizations. Research suggests that traditional measures of military personnel capabilities and residual “combatant stereotypes” can work against the readiness of women, and undermine their integration (Swick & Moore, 2018; Tarrasch et al., 2011; Wood & Charbonneau, 2018). Further, such obstacles are shown to hinder self-efficacy and, ultimately, combat-related performance (Culver, 2018; Wood & Charbonneau, 2018).

Due to the historical exclusion of women and the agentic traits stereotypically associated with being a “good leader,” the military remains a masculine environment. Agentic traits are personality characteristics often associated with men and success, including competitiveness, individualism, and dominance. Conversely, women are still expected to display traits such as warmth, sensitivity, and communal behavior and valued for it (Eagly & Wood, 2012; Fiske et al., 2016). These expectations are deeply influenced by socialized gender roles and reinforce traditional distinctions between male and female expressions in various work contexts (Connell, 2005; Lucas, 2003; Fiske et al., 2016). This traditional socialization of roles, particularly in military contexts, ensures that the traits associated with masculinity remain dominant and highly valued. Expressions that deviate are perceived as less valuable or subordinate. Many institutions, including the military, continue to rely on traditional gender roles, reinforcing the perception of men as the most competent leaders and

more capable in combat. In the military, masculinity is aligned with the idea of combat, the normalcy of combat, and presumed characteristics of a successful combatant (Chisolm & Tidy, 2017; Do & Samuels, 2021). Further, in the military, an additional role is expected: a “warfighter” role that prioritizes mental toughness, physical readiness, and traditional notions of strength. This is not “toxic” per se, but a result of natural social processes by which certain characteristics are associated with certain roles. However, the question remains: how might women come to be viewed as equally competent warfighters? The concept of what it means to be a warrior and warfighter is evolving within the USAF, reflecting its critical value to the mission. Both men and women are fully capable of meeting this standard. Military training should reinforce this idea, emphasizing the readiness of all capable combatants, regardless of gender.

Role Congruity as an Obstacle

Role congruity theory expands our understanding of traditional gender roles in the workplace by suggesting that evaluations of individuals in a role depend on how well their characteristics align with expectations associated with that role and their gender (Eagly & Karau, 2002). Combat roles are typically aligned to agentic traits which are stereotypically associated with men (Eagly & Wood, 1999; Klenke, 2016) thus creating a perception that men are more suitable as warfighters. This leaves women in the military facing a dilemma: to be perceived as legitimate, they may adopt these agentic traits, but doing so conflicts with societal expectations of communal roles for women (Eagly, 2007), contributing to cultural challenges in recruitment and retention.

Research by Brutsche (2022) shows that women in combat roles who demonstrate assertive behaviors that are viewed positively in men, are seen as overly aggressive. Traditional gender roles further reinforce these disparities, valuing 'masculine' traits over 'feminine' ones in warrior cultures (Melamed et al., 2019), thereby granting higher status to men in military settings. Socio-cultural norms and perceptions about combat training and direct engagement continue to limit

opportunities for women (Smith & Rosenstein, 2017; Kintzle et al., 2023). Integration of professions is crucial for challenging these norms (Eagly & Carli, 2003; Lucas & Baxter, 2012), highlighting the importance of integrated combatives training—such as close-quarters hand-to-hand combat—to advance women’s inclusion in combat roles.

Women’s integration into combat roles faces resistance rooted in the assumption that combat effectiveness is inherently male. Historically, women have been relegated to support roles, with their contributions often overlooked unless in supportive roles like medical or cultural units. The lack of recognition for women’s combat service perpetuates misconceptions about their capabilities. The Jax Act of 2023, aimed at amending military records for women who served in combat before formal integration, illustrates ongoing efforts to acknowledge and validate women’s contributions, yet challenges persist in gaining legislative approval and public recognition.

Melamed et al. (2019) argue that status differences within groups influence competence expectations, with implications for men and women’s influence. Demonstrating superior performance can challenge these expectations (Pugh & Wahrman, 1983; Ridgeway & Correll, 2000), boosting women’s self-efficacy and altering group dynamics (Stajkovic & Luthans, 1998). Addressing women’s self-efficacy in combat skills through integrated training can enhance visibility and competence perceptions. Promoting women’s self-efficacy and performance through integrated training offers a pathway to challenge gender norms in the military, facilitating greater equality and recognition of women’s capabilities in combat roles.

Combatives Self-Efficacy Strategy and Theory

One strategy to increase women’s interest in combat roles is to create conditions that promote self-efficacy, as evidence suggests that self-efficacy influences the activities and environments that individuals pursue (Bandura, 1989; Betz & Hackett, 1986; Culver, 2018). Self-efficacy can be defined as an individual’s belief in their ability to execute a behavior or perform in a specific way (Bandura, 1997). Specifically, self-efficacy is first the awareness of one’s skills and abilities, that

is followed by an increase in performance. Long (1989) notes that when women identify with the characteristics of a profession, then self-efficacy increases, job-strain lessens, and they are more willing to engage with those roles.

Integrated combatives training, which brings men and women together in a training that combines techniques from various martial arts, is one plausible avenue to target cohesive self-efficacy. It not only prepares service members for high-level military skills, but it also gives men and women the opportunity to experience success in combat alongside each other. Service members train in lethal and non-lethal techniques, hand-to-hand, in close quarters between two or more combatants. Tharion and colleagues (2022) assess psychological characteristics that produce an elite female combat warfighter and find that integrated combatives training can build self-efficacy and form warrior identity. For women, experiences that produce specific combat self-efficacy can improve their commitment to combat roles and leadership success in combat ranks.

While some studies examine gender-specific experiences in combatives training, most research focuses on men, limiting our understanding of its full impact on self-efficacy. (Boe, 2015; Morales-Negron et al., 2021). The studies that have included women suggest differences in self-efficacy by gender before the training. For example, a study on combatives training for police found that men report higher confidence about going “hands-on” in threatening situations than women (Torres, 2018). Complicating the understanding of gender differences in this area, most collegiate-level combative physical education courses such as boxing, wrestling, and martial arts, which could have provided useful insights, were not co-ed integrated until recent years (Bedard et al., 2018). The dearth of published studies and limited examination of integrated combatives programs, combined with existing studies’ reliance primarily on quantitative methods, leave a significant gap in understanding the potential impact of integrated combatives training on women’s combat self-efficacy. While quantitative methods provide some insights into self-efficacy, qualitative methods, such as interviews and focus groups, offer a more comprehensive picture. They capture the nuances of participants’ experiences,

revealing interpersonal and emotional processes occurring in the classroom and highlighting training influence on reported self-efficacy.

Studies of self-efficacy in various military training contexts offer valuable insights into the conditions that build confidence and skills essential for military tasks. After participating in a self-defense training intervention, women university students reported viewing themselves as far more able to discern danger, control emotions in an attack, discourage assault, and physically defend themselves (Weitlauf et al., 2000). Samuels and colleagues (2010) examined self-efficacy from cadet experiences in a summer skydiving program called freefall, showing that training in dangerous contexts and under conditions that create significant levels of personal anxiety provides increased self-control and leadership assertiveness. They show that individuals benefit from training that involves action in challenging and physically affronting environments. Achieving success in such conditions can boost self-efficacy in critical combat-specific domains.

We suggest that experiences with combatives trainings for women can similarly work to boost combat self-efficacy. Studies indicate that combatives training can reduce anxiety related to physical combat, increase self-efficacy with regard to self-defense, and motivate women to participate in combat activities (Morales-Negron et al., 2021; Torres, 2018). Having confidence in one's ability to perform in combat—self-efficacy specific to the characteristics associated with the profession—is important for integrating more women into combat units. Therefore, we propose that directing this focus toward the cadet level of training—the foundational recruitment stage for military leaders—will target competency norms at an early stage. This context is intricately connected to the demands of future combat operators and leaders.

Historical Backdrop of United States Air Force Combatives

Shortly after the September 11 attacks in 2001, commanders in the USAF started independent training programs to teach both hand-to-hand combat and instill warrior ethos. These programs sought to instill key virtues such as courage, honor,

and loyalty in Airmen preparing for deployment. The collective result was an adopted program modeled after the Army Combatives Program but modified to fit the needs and culture of the USAF, thus establishing the Air Force Combatives Program (AFCP). In 2009, the United States Air Force Academy (USAFA) created the Air Force Combatives Center of Excellence (AFCPCoE) to implement this standardized integrated combatives training program across the entirety of the USAF training schools. The USAFA Combatives Program, requires a closer look when we discuss issues of retention and visibility of women in combat jobs, as USAFA is one of three of the USAF's commissioning sources (Reserve Officer Training Corps and Officer Training School are the others) that offers integrated combatives training before assigning cadets their Air Force Specialty Code (AFSC) or occupation. USAFA is the only commissioning source that requires 30 hours of combative training, which occurs at a critical time before career selection and, developmentally, at a time when individuals are discerning where they fit. This is a critical point for determining a cadet's career field choice, and women are less likely to choose combat fields. A culminating combat training experience stands to improve this.

According to its mission, the USAF seeks individuals who are willing to dedicate years of their lives to warfighting and winning—to fly, fight, and win with airpower anytime and anywhere. This study did not stem from administrative directives but rather emerged from the combat instructors themselves, who initiated the exploration of their integrated combatives program and its influence on self-efficacy. The Air Force Combatives Center of Excellence is housed at USAFA, where experts train cadets and Airmen from AFSCs. The courses cover not only hand-to-hand combat skills but also emphasize learning to react under pressure, building self-confidence, and demonstrating the mental toughness necessary to endure and succeed in unarmed combat scenarios. The deeper investigation emerging from this study is an intention to support women's full participation in this mission. As such, the program evolved from a class delivered separately to men and women to an integrated classroom (men and women training together).

Methods

To understand combative training's influence on self-efficacy of women at USAFA, we conducted a mixed-methods study to explore combative training's influence on self-efficacy with particular attention to gender role differences. The qualitative portion consists of cadet interviews, while the quantitative portion is derived from self-efficacy surveys conducted across multiple class sections. This study examines how a required integrated combatives training class, where men and women train together, impacts women's self-efficacy. To target self-efficacy and gender role differences we test three quantitative hypotheses and one qualitative research aim.

Hypothesis 1: The USAFA's mandatory combatives training improves cadets' combat self-efficacy.

Hypothesis 2: Gender differences exist in cadets' combat-specific self-efficacy.

Hypothesis 3: Co-ed integrated combatives training delivery (compared to segregated delivery) positively impacts combat self-efficacy changes for both men and women.

Research Aim 1: Explore student experiences in integrated training to inform future investigations in combat training and related fields.

Participants

USAFA is a federal service academy and an accession source of commissioned officers for the USAF. All USAFA cadets are in military status and engage in full-time studies for four years before commissioning as active duty second lieutenants upon graduation. It is located in Colorado Springs, Colorado, an accredited four-year university offering a Bachelor of Science with 32 academic majors. The USAFA student body, known as the Cadet Wing, consists of about 4,000 cadets who live and attend school on campus. All participants in this study were USAFA cadets enrolled in mandatory combatives training courses in 2016 and 2018.

The IRB procedures for the institution were followed before developing course surveys and again before manuscript construction. Pre-course surveys were administered to 405 cadets entering a mandatory combatives course at USAFA in 2016 (gender-segregated courses; n=216) and 2018 (gender-integrated courses; n=189). The combined surveys captured gender (244 men, 154 women; 7 declined to report gender) as well as confidence in respondents' own combatives skills. Participants in the 2016 gender segregated combatives courses were 38.5% women and 61.5% men, while participants in the 2018 co-ed courses were 40% women and 60% men. The demographic makeup of the Cadet Wing has remained about 30% women and 70% men in the last several years (USAFA Admissions, 2021).

Table 1.

<i>Participant Description</i>			
	Gender		Total
	Men	Women	
Year/Test			
2016 Pre-test	127	89	216
2016 Post-test	118	89	207
2018 Pre-test	117	65	182
2018 Post-test	105	59	164
Total	467	302	769

Materials/Self-Efficacy Survey

For the survey, participants completed a 10-item assessment on a Likert-type scale—from 1 to 5. Three questions theoretically aligned with the measurement of combat self-efficacy in that they measured respondents' belief that they would successfully execute required behavior under specified circumstances. As true to the mission, it is intended to measure specific efficacy in a non-armed combat situation. The questions mirrored the formats suggested by Bandura in defining what self-

efficacy entails—one's personal belief in their ability to succeed in specific situation (1997; 2006). The survey asked respondents to indicate their level of agreement with the statements related to confidence in ability to defend oneself in real situations: (a) "I can defend myself if I am attacked by an unarmed combative," (b) "In a fight situation, I am confident that I could deal efficiently with unexpected events," (c) "While engaged in a hand-to-hand situation, I can remain calm when facing difficulties because I can rely on my coping abilities." Participants would rank their agreement such that 1=no agreement and 5=very strong agreement with each statement. Reliability testing on the full sample confirmed the three questions' utility as a scale to measure combat self-efficacy ($\alpha=.867$). The survey was re-administered to the same cadets at the end of the course (207 from 2016, 184 from 2018; 223 men, 148 women, 20 declined to report gender).

Active Interviews and Behavioral Observations

The second data set came from active interviews (Gubrium & Holstein, 1997) and observations during the co-ed combatives training courses in 2018. We created an interview guide to capture cadets' learning and application of combative skills, using open-ended questions in class and during their final boxing bouts in the course. Participants were selected purposefully based on their having, within the hour, completed a graded review of their combatives skills based on a fight. This recruitment was aimed at acquiring data that was in close proximity to having achieved something physically and psychologically challenging. In total, 19 cadets (14 women and 5 men) were interviewed.

In addition, all cadets enrolled in the boxing combatives course were observed in action during one 2018 semester. Class observation included academic instruction on combative skills and preparation for hand-to-hand combat. The final test comprised a boxing bout of two 60-second rounds with a 60-second break between rounds, after which cadets were awarded a skill-based score representing 50 percent of their total combatives boxing course grade. This graded event was particularly important, as it served as the culminating experience where cadets demonstrated

tangible skills. Observational notes captured details of the fight, along with surrounding dialogue, peer interactions, and self-management. Observations focused on interactions within the course; this included strategizing, pep-talk/peer encouragement, preparation, learning processes, positive congratulatory interactions, and expression of concerns during pre- and post-evaluated/graded moments.

Both interview and observational data were recorded and then transferred into Dedoose software (version **9.0.17**), for qualitative analysis. Data were coded using a descriptive approach to best categorize the breadth of perceptions, opinions, and emotions arising from cadet class experiences (Saldana, 2021) and were characterized by causation patterns (one appears to cause another). Interview and observational data analysis consisted of three steps. First, organizing and reading through the data, coding the data, and then aggregating codes into thematic areas for discussion (Creswell & Creswell, 2017). Process coding captured behavior and guided our analysis of class observations and class structure patterns. Descriptive coding was used for interviews to document and categorize the breadth of feelings and experiences described by participants. Finally, codes were compared and gave rise to more comprehensive concepts that we subsequently linked to self-efficacy mechanisms.

Results

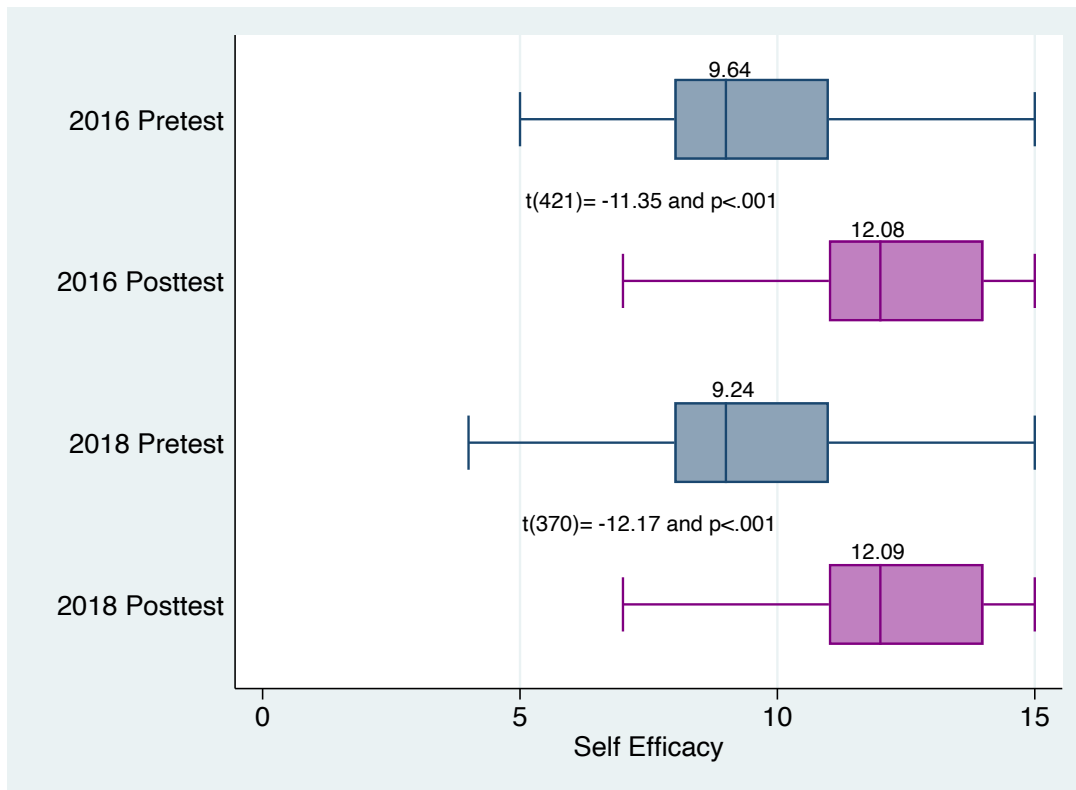
Hypothesis 1: The United States Air Force Academy's mandatory combatives training course improves cadets' combat self-efficacy.

Course effectiveness on self-efficacy was examined using independent samples t-tests. This statistical test determines if there is a statistically significant difference between the means of two separate, unrelated data groups (samples). In essence, this test checks if the observed difference between them is likely due to chance or represents a real population difference. To gauge the impact of the combatives course on combat self-efficacy, we calculated sum scores across three pre and post-test questions for 2016/2018. Each question was ranked from 1 to 5 and sums possible ranged from 3 [lowest self-efficacy] to 15 [highest self-efficacy].

Independent samples *t*-tests for 2016 revealed statistically significant differences in mean combat self-efficacy pre-test ($M = 9.65$, $SD = 2.4$) compared to post-test ($M = 12.08$, $SD = 2.0$; $t[421] = -11.35$, $p < .001$). Differences were replicated via independent samples *t*-tests for the 2018 pretest ($M = 9.24$, $SD = 2.3$) compared to the post-test ($M = 12.09$, $SD = 2.2$; $t[370] = -12.17$, $p < .001$; see Figure 1). In both testing groups for 2016 and 2018, results demonstrate that USAFA combative training courses improved cadets' combat self-efficacy. Women and men combined reported higher self-efficacy scores after taking the combatives training course, with the independent samples *t*-tests showing that these differences were due to a real population difference and not by chance.

Figure 1.

Means for SE by Year and Pre/post-test Time With 95% Confidence Intervals (t-Test).



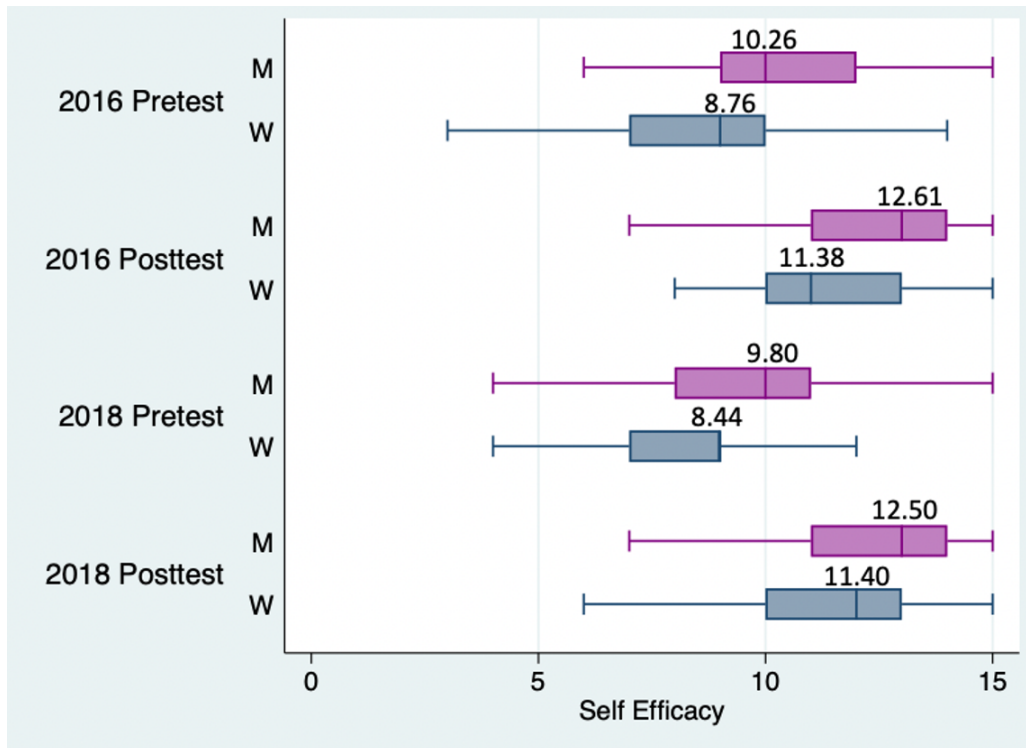
Hypothesis 2: Gender differences exist in cadets' combat self-efficacy.

Independent samples t-tests comparing women's and men's pre-test self-efficacy scores in both 2016 and 2018 revealed men's higher combat self-efficacy pre-test scores in both years. There was a significant difference in the scores for the men pretest 2016 ($M = 10.26$, $SD = 2.37$) and women pretest 2016 ($M = 8.76$, $SD = 2.14$; $t [214] = 4.78$, $p < .001$), and the following integrated year, men's pretest 2018 ($M = 9.80$, $SD = 2.35$) and women's pretest 2018 ($M = 8.44$, $SD = 1.87$; $t [180] = 4.0$, $p = < .001$; see Figure 2). Similarly, post-tests showed the same trend, with significant differences in 2016 between men ($M = 12.61$, $SD = 1.99$) and women ($M = 11.38$, $SD = 1.79$); $t [205] = 4.59$, $p = < .001$; see Figure 2), and in 2018 when classes were integrated (men post-test $M = 12.50$, $SD = 2.01$; women's $M = 11.51$, $SD = 2.15$; $t [161]$, $p = < .005$).

While men reported higher levels of self-efficacy in both pre-and post-tests compared to women, women (for both years) began with significantly lower self-efficacy scores than their male counterparts (see Figure 2). Results indicate gender differences in self-efficacy both before and after taking the combatives course in both segregated and co-ed years. While the previous test demonstrated a growth in self-efficacy in all participants, this test separates women and men and compares them separately. In doing so, we demonstrate that women and men were different from each other concerning overall self-efficacy growth after taking the combatives training course. Women scored much lower than men prior to taking the training; however, their score improvements were much higher than that of the men and, upon completion of the course, were near parity with men's scores.

Figure 2.

Means for self-efficacy by variables of Year, Pre/post-test Time, and Gender (t-Test)



Hypothesis 3: Co-ed integrated combatives training course delivery positively impacts combat self-efficacy changes for both men and women.

Independent samples t-tests compared pre-2016/2018 and post-2016/2018 scores between years and by gender to test for differences in course delivery on self-efficacy. First, independent samples t-tests were used to test for any significant differences in pre-course self-efficacy. Tests confirmed that men's pre-test scores in 2016 ($M = 10.26$) did not statistically differ from men's pre-test scores in 2018 ($M = 9.80$), and women's 2016 pretests ($M = 8.76$) did not significantly differ from women's 2018 pretests ($M = 8.44$). Likewise, both men's and women's (post-tests) scores did not differ substantially between years as *t*-tests revealed no statistically significant differences between men's 2016 post-tests ($M = 12.61$) compared to men's 2018 post-tests ($M = 12.50$), or in women's 2016 post-tests ($M = 11.38$) compared to

women's 2018 post-tests ($M = 11.40$). This shows that changes in men's and women's self-efficacy did not significantly differ between non-integrated and integrated classes. Men and women are both improving with the classes, and there was no impediment in progress given the shift in structure from non-integrated to integrated.

Research Aim 1: Explore student experiences in integrated training to inform future investigations in combat training and related fields.

Three themes emerged when interviews and direct observations were analyzed under the same coding structure: *New Experience/New Emotion*, *Interpersonal Skill*, and *Stress Facing (together)*. These themes provide information towards our research aim to improve understanding of men's and women's experiences with an integrated combatives course.

Theme One: New Experience, New Emotion

Women and men alike described the course as positive, but it was, for many, a new and stressful experience. Consistent with self-efficacy, these themes emerged in cadets' experiences to combat capability, meaning the "I can" affectivity of combat (Bandura, 1997). Confidence was a primary code often attached to these emergent themes and cited more frequently in the *New Experience* category. One woman participant described how the class offered new experiences generating interpersonal knowledge of how others operate under fear:

It's a good class, my favorite. I like the suspense and making a game plan. I used to watch my dad and brother spar, but I couldn't. You actually get to spar here, feel what it's like to get hit. You build respect for the other person; see how they operate under pressure and fear. It's like the active shooter situation, everyone acted differently. Fear changes people and it's good to practice doing fear, responding to it.

Men valued the shared experience with women, learning these new skills alongside them. One male student described his experience as "It's really good, they do the same job as us. I see them get more confident from the beginning to the end."

Several women participants highlighted an in-the-moment construction of courage they otherwise would not experience:

“It stressed me. The fighting makes you think in the moment, it builds courage.”

“I do feel more confident. I don't like it, but I do feel more confident if something were to happen to me.”

The new experience of having to “hit someone,” was discussed by women and men. They mentioned the oddity of hitting someone and the utility of having to do it. In the context of combatives training, hitting an opponent and defending oneself from a “hit” are fundamental aspects of boxing. This training not only equips cadets with self-defense skills but also prepares them for the visceral experience of physical combat. The instinct to protect oneself from a hit is far more inherent than the act of delivering a blow. As a result, this new, and odd experience produced a distinct emotion for cadets to navigate. Cadets note that skill of delivering a hit creates new emotions and newfound confidence. Following are some of the ways in which cadets expressed their feelings about learning this new skill as part of combat training:

“It’s hard to stick to the game plan because the emotions are racing ...tunnel vision.”

“We have to hit each other the first day. It’s a weird feeling. You have to brace for it.”: “We have to fight hard and be aggressive but not concuss each other. I feel more confident. I hope I don't have to fight but I could if I had to now.”

This observation supports Hypothesis Three, which suggests that combatives training positively influences self-efficacy—participants feel confident in their ability to fight effectively if necessary.

The coaches emphasized the role and mindset of combatant, reminding cadets of the importance of learning new, hard, and unnatural skill. Encouraging phrases used by coaches included:

“You are providing a service to the taxpayer!”

“Embody the mentality or you set yourself and your unit up for failure. You are a combatant—be aware of that.”

“You are now significantly more comfortable with interpersonal violence.”

What is highlighted in these excerpts is the self-efficacy that emerges as a result of being nudged into something so unnatural for the sake of military service. What draws into the theme of new experience and emotion is that everyone does it together, men and women alike. These excerpts highlight the self-efficacy that develops when individuals are nudged into something inherently unnatural. Central to the theme of new experiences and emotions is the shared nature of the challenge, with men and women undergoing it together. They are, in essence, doing the job in solidarity, as members of the Air Force rather than separate genders.

Theme Two: Interpersonal Skill

Interpersonal skills arose as a theme in both observation and interview data. Several cadets described the social benefit of the class, including the feedback and collaboration that accompanied each fight. Various interview comments concerned the interpersonal maneuvers required in training:

“It was stressful, but you learn so much from it. I’m glad we have this as a class. There is a social benefit.”

“I’m surprised about how much I learned after the workout. After a bout I reconstruct the bout as friends, not as adversaries. We use each other to grow.”

Another common experience noted was the personal push required of an individual first to do something terrifying and then communicate with others to make that push successful. Cadets described the experience as an interpersonal process: “I’m always hesitant to fight but pushed myself to do so.

Observational data included several instances of cadets collaborating before and after fights. These included opponents communicating with each other and discussing some of the apparent emotions incipient in the experience they were preparing to have with one another. Cadets showed high encouragement of each other while discussing strategy and a mutual understanding of how the fight would go. This understanding appeared as a very interpersonal process prior to and

following their fights and perhaps stands as a social process to bolster warrior role identity. Cadets exhibited strong mutual encouragement while discussing strategy and shared an understanding of how the fight would unfold. The experience emerged as a highly interpersonal process before and after the fight engagements. The process served as a social mechanism to reinforce warrior role identity, connecting with Bandura's (1997) theory that self-efficacy results from approaching new situations and performing competently.

What is illuminated in these quotes is that students relied upon one another to approach a new situation confidently. Identities are social products that are confirmed through several mechanisms, including interactions with others, and these types of interaction help confirm the meaning of the expected behavior of that identity (Burke & Reitzes, 1991). In this case, 'fighter' is an identity that, at this stage of a student's USAFA education, is still in flux and highly dependent upon the appraisals they receive. Taken together, the interpersonal processes observed in combatives class provide an opportunity to approach new situations and to behave within a newly forming identity framework—a potential process facilitating self-efficacy growth.

Theme Three: Stress-facing (Together)

A mindful approach to stress was also noted, as cadets discussed how their plans must change constantly during a fight. What stood out most was the acknowledgment that participants must face stress together. Many women acknowledged that stress emotions are normal, reflexive, and “probably a good thing to experience.” In combatives class, specifically the culminating fights, stress-facing produces an in vivo problem-solving experience in high physical threat situations. Such experiences likely increase individuals' self-efficacy (Hollander, 2004; Weitlauf et al., 2000). The following statements illustrate both the stress-facing experienced by students and participants' reflections of what others are also experiencing under stress:

“I like it but feel bad about liking it. The grade part makes it nerve-racking, fucking hard, fun, and exhilarating.”

“Your plans have to change in the ring, adapt, overcome.”

“I’m glad I did it. No matter how much you plan it all goes away after you get hit. Then you just go for it. I’m glad I did it.”

Cadets describe their experiences with facing stress, with emphasis on how they care for each other through culminating fights. They showed kindness to each other as part of facing stress together. Worries about concussions and a calculated fight came up in their conversations prior to the final fight. Women's interactions and discussions with each other on fight day included comments such as: “I'm scared, try not to hit me hard.” They acknowledged to one another that the emotions are normal, reflexive, and probably a good thing to experience: “This is my favorite thing, ever.” Likewise, men discussed the fights in detail with each other. They acknowledged the stress as well as the necessity for strategy and learned skills going into the fight. There was often a soothing interaction from friends between rounds. Men often joked about winning the match. They also encouraged each other to get aggressive and “pissed off” to help with winning. In between rounds, men coached each other and discussed hand movement, stress, and cardio while showing good support for whoever lost the match. Following the match, men showed positivity toward each other with fist bumps and hugs.

Finally, cadets, irrespective of their gender, commented on the nature of the stress-facing experience and how stress was something they were learning to consider normal and necessary, as demonstrated in the following quotes:

“Good experience. I wish there were more classes like this. I like it a lot. I learned from the intensity of the class. I learned hitting someone was easier than I thought. I like the defense training.”

“They discussed the stress model with me. They said it works. We felt it work. It didn't just give us confidence in fighting but in interaction with each other.”

“Thought it was so fun. We used to get a little mad at each other but it's really healthy, one of my favorite classes.”

“This builds courage because you're going into a situation where you might get hurt.”

Connecting this theme back to role congruity and self-efficacy, the interviews and observations illuminate the stressful reality of the combatives training course environment in conjunction with the interpersonal nature of a fight.

Discussion

Quantitative and qualitative findings indicate that integrated combat training enhances individuals' perceptions of their fighting capabilities. This effect was observed for both men and women, whether in an integrated course or not. However, integration further enhances this progress by allowing men and women to experience and work through the stress of it all, side-by-side. It also indicates that women often begin with lower self-efficacy at the start of the training, highlighting the importance of boosting women's confidence in the realm of combat. Women arriving at training with lower self-efficacy scores highlight the importance of combat training, not only for preparing them for military combat roles but also for providing nuanced relational and stress-management benefits that extend beyond combat. Meanwhile, the interviews emphasize how the shared experience of combat helps participants process new, stress-inducing emotions related to violence. An unexpected interpersonal skill, akin to collaboration, also emerged, perhaps from the necessity of fighting well, performing well, and supporting the development of the teammates they will fight.

Building on this, participants expressed appreciation for the unpredictable danger inherent in the class. Based on the interviews, classes provide some of the essential yet often elusive experiences that come from a realistic combative experience. Stajkovic and Luthans (1998) discuss the difference between simulated and actual environments and note that more realistic experiences improve self-efficacy (Stajkovic & Luthans, 1998; Bandura, 1997). This means that students need to perceive the experience as potentially realistic. Both survey results and interviews illustrated that the combatives fighting environment simulated enough physiological and psychological danger to make the experience beneficial to cadets when considering their future roles in combat.

Participants further disclosed that their performance leveraged on whom they experienced the danger with. Not only was stress faced in the moment, but it was done with someone who, in the very near future, they could be fighting alongside. Based on the foundation of role congruity theory, which suggests that individuals can fulfill the roles they are assigned, combatives training can realign women's perceived capabilities in combat alongside men.

Integration yielded positive results, although no statistically significant differences were found between the non-integrated and integrated years. Male participants said positive things about experiencing the training in a co-ed setting. More importantly, male participants acknowledged the need for women to acquire such skills for their future roles as USAF officers. An encouraging finding is that integration does not impede progress or the success of either gender in achieving the objectives of the course. Given that women initially report lower levels of self-efficacy compared to men entering the class, the fact that they achieve near parity, with a difference of less than a point, by the end of the integrated course is noteworthy.

Additionally, qualitative interviews suggest potential for men's views of combat as a masculine endeavor to evolve through integrated course delivery. Specifically, men's comments after the integrated course expressing expectations that women will "do the same job as us" and noting their satisfaction in witnessing their women classmates "get more confident from beginning to end," suggest that men's experiences taking combatives training with women may improve their acceptance of women in combat roles. More importantly, this type of learning can meet the complex challenge of promoting women's participation in combatant roles historically aligned with men. This acceptance may trickle into both men's and women's operational careers. Men's acceptance may improve integrated combat units' trust and morale, improve women's feelings of acceptance in combat units, and perhaps improve both women's recruitment and retention in such positions/units.

What stands out as promising for future study is that the themes of new experience, interpersonal skill, and stress-facing can be considered outside of the context of combatives. These capabilities can realign the socialized gender roles of

women, often unrecognized or underutilized in the context of war fighting. This type of training allows men the opportunity to see such capabilities in action and attribute them to war fighting success. One strategy known to increase the status of women is to highlight legitimacy and advertise worth (Lucas, 2003). Similarly, an established approach to mitigating gender role stereotypes involves creating experiences that challenge common stereotypes of women and men, including confidence, strength, and interpersonal and emotional intelligence (Lopez-Zafra et al., 2012; Melamed et al., 2019; Ridgeway & Correll, 2000). As per the qualitative data gathered, this is happening in integrated combative training.

Conclusions

Results of this study support the three hypotheses and afford new insights into thoughts and experiences of cadets in integrated combative training. Findings indicate that USAFA integrated combatives training improves participants' combat self-efficacy, particularly when courses are co-ed integrated. Gender differences do exist for self-efficacy in both pre- and post-conditions, and those differences showed up in the 2016 and 2018 courses. This is unsurprising as the cohorts are extremely similar (age, gender) across the two cohort years. For both years, women's self-efficacy begins lower (pretest) relative to the men's. While improvement differences were not determined significant via the *t-test*, the qualitative data showed participant appreciation for the integrated format. The primary benefits are witnessing women's combat capabilities and, more importantly, fostering competence in interpersonal skills, overcoming stress, and shared, intense experiences that will most certainly arrive in a true combat situation.

This finding points to the need for continued co-ed combatives training at military academies. In addition to the positive impact on women cadets' self-efficacy, qualitative analysis revealed three main themes—*new experience*, *new emotion*, *interpersonal skill*, and *stress facing (together)*—that may promote cadets' self-efficacy and legitimacy in the warrior role. These findings may be leveraged as institutional strategies or goals to create meaningful, growth-promoting experiences.

Regarding how our findings related to recruitment strategy, they underline a theoretical assumption that self-efficacy gained from combatives can foster a commitment to warrior roles that might not otherwise form. The realistic environment, stressful setting, and interpersonal nature of the experience provide interactions and feedback necessary to feel successful in a warrior role and perhaps many other roles needed in the military. This direction supports confidence in one's ability to perform a role while reimagining the stereotypical roles associated with combat and legitimizing the presence of women in combat spaces. Future studies should seek to test if and how women's self-efficacy (and increases in same) influences their pursuit of combat-related and/or operational job specialties (i.e., AFSC). Additionally, future attention could focus on experiential themes of new emotion; what other new emotions arrive in integrated combat situations? This could be further explored with both men and women in an effort to build more competent combat teams. Finally, combatives training can enhance self-efficacy for combat and potentially motivate women to pursue combat-related careers. These efforts would not only improve the force's readiness and lethality, but also strategically position women for high-level defense decision-making roles. Continuous integration represents a favorable path forward, as does any training aimed at cultivating efficacy for undertaking the pioneering role of a warrior.

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