

EFFECTS OF SELF DEFENCE TRAINING FOR SEXUAL ASSAULT PREVENTION IN THE AIR FORCE

Roxanne S L DuVivier, Mary J Huber, Julian Bass, Alfred R Couchon, Alan Avila-John, Ryan Taylor and Joseph E Keferl

Authors from Wright State University

Abstract

Sexual assault in the military has become a prominent societal concern. A recently released Department of Defence report on military sexual abuse concluded that sexual abuse continues to be a significant problem in the armed forces. To address this issue, systematic and cultural change, including training military personnel on sexual assault and the prevention and protection against sexual abuse, is needed. A study examining the effectiveness of a week-long workshop using the Gracie Defense Systems was conducted. The results suggest that Gracie training designed to empower military personnel to prevent and protect themselves against sexual abuse and teach sexual awareness was effective. The overall effects of the training ($f2 = .41$; large ES) appear to affect underlying constructs such as self-efficacy, self-determination, vigilance and vulnerability. In addition, differences were found between males and females prior to training ($f2 = .44$) and after training ($f2 = .29$) as well as differences between those who had prior self-defence training and those that did not have such training ($f2 = .35$). Recommendations include field testing and validating a measure that adequately examines self-efficacy, self-determination, vigilance and vulnerability as well as continued efforts to implement sexual abuse training throughout the military and improve policies.

Findings from sexual assault training in the military

Over the past several decades, sexual assault (SA) has become an increasingly prominent societal concern for both men and women but in particular among women. The United Nations Commission on the Status of Women (UNCSW or CSW) characterises violence against women as a global problem with widespread and severe violation of the human rights of women, both in peacetime and in war.¹ Due to the complexity of the issue and the varying methods used to define and assess SA, it is difficult to measure the scope and magnitude of the problem accurately. Incidence and prevalence estimates for SA vary dramatically due to inconsistencies in methodologies and definitions. Elliott et al. define SA as any type of sexual behaviour that occurs without the clear consent from all parties.² Similarly, the Department of Justice (DoJ) defines SA in general terms. Sexual assault refers to any sexual activity, such as fondling, forcible sodomy, child molestation and/or rape.³

Using the DoJ definition of SA, studies indicate that between 3% and 25% of men and women in the general population experience some form of SA during the course of their lives. Similarly, Elliott et al.⁴ examined SA among 941 participants and found that 22% of the women and 3,8% of the men reported had been sexually assaulted at least once in their lifetime. A study by Tjaden and Thoennes reported that 22,1% of women and 7,4% of men experienced SA at some point in their lives.⁵ In sum, community samples of men yield prevalence rates ranging from 3% to 8% and 15% to 51% for women^{6,7,8,9,10}

Military sexual assault

Sexual assault in the military has become an obvious problem and concern for military personnel.^{11, 12, 13} There are a plethora of studies that provide evidence of the intolerably high incidence of military sexual assault (MSA) against men and women^{14,15,16,17,18,19,20,21,22}

Similar to the DoJ definition of SA, the Department of Defence (DoD) defines MSA as “intentional sexual contact, characterized by use of force, physical threat or abuse of authority or when the victim does not or cannot consent”.²³ The definition includes offences ranging from unwanted sexual contact to forcible sodomy and rape as well as attempts to commit these offences. Thus, MSA does not refer to one specific crime; rather, it encompasses a collection of sex crimes, including rape.^{24, 25, 26}

Lipari et al. report an annual MSA prevalence rate of 6,8% for women and 1,8% for men among active-duty military personnel.²⁷ Among reservists, Street and colleagues found an annual MSA rate of 13,1% among females and 1,6% among males.²⁸ Lifetime prevalence rates of MSA are considerably higher. Among female veterans, Skinner et al. report a 23,0% lifetime prevalence rate.²⁹ Sadler et al. report a 28% lifetime prevalence rate.³⁰ Campbell et al. report a 22% lifetime prevalence rate.³¹ Kimerling et al. report a 21,5% lifetime prevalence rate.³² Compared to civilians, the rate of reported SA is three times higher for military women than for civilian women.³³ In sum, these studies document a substantial prevalence rate of MSA among women and men, with women consistently reporting a considerably higher rate.

Additionally, there is evidence to suggest that these rates are considerably underreported due to both real and perceived consequences of reporting the experience.^{34, 35, 36} More than 86% of service members do not report their assault, less than 5% of all SA cases are put forward for prosecution, and less than a third of those cases result in imprisonment.^{37, 38, 39, 40} The RAND Military Workplace Study identified various forms of retaliation that military personnel might experience if they report MSA, such as social retaliation, professional retaliation, administrative action, and punishment.⁴¹

Factors associated with women’s risk of MSA have been examined. Sadler et al. found that environmental factors associated with an increased likelihood of rape in the military included being sexually harassed by an officer and receiving unwanted sexual advances while on duty or while in sleeping quarters.⁴² The study also reported that the

assailant was likely to be under the influence of alcohol and/or drugs at the time of the offence.⁴³ Women who reported a hostile work environment were six times more likely to experience rape. Women who reported that they had experienced unwanted sexual advances in their sleeping quarters were three times more likely to experience rape.⁴⁴

A study was conducted to examine current perceptions of the sexual harassment and assault problem in today's United States (US) military.⁴⁵ The views of 120 military service members were collected via interviews and compared to those of civilians. On average, soldiers believed that sexual harassment and SA would occur while on duty, blaming the victim and treating them accordingly.⁴⁶ Fortunately, they also reported that both sexual harassment and SA should not be tolerated, and that the measures in place to address these problems in the military are inadequate.⁴⁷ The White House raised the profile of this serious public health issue with a report on violence against women in the military released in 2014.⁴⁸ Indeed, the military culture, where colleagues are comrades-in-arms, affects both the reporting of incidents of sexual assault and the perceptions held regarding the severity of SA incidents.

Effects of sexual assault in the military

The consequences of SA are significant, complex and often of long duration. Universal consequences include a wide range of physical and mental health problems such as depression, post-traumatic stress disorder (PTSD), chronic pain, diabetes, anxiety and eating disorders.^{49, 50} The effects of SA in the military include these problems, which are amplified and exacerbated by the unique characteristics of military culture. Military culture is dominated by formality, hierarchical structures, paternalistic beliefs, the importance of leadership, intolerance for mistakes, dependability and camaraderie, and emotional control.^{51, 52} If a member of the military calls into question the culture, the group acts quickly to diminish the individual in support of the larger group and the group attempts to preserve the status quo. Given the needs of the military to emphasise collective responsibility and strength in the unit (at the very least for defensive and offensive strategic purposes), individuality and personal control are non-existent.^{53, 54}

In line with this reasoning, Northcut and Kienow propose a trauma trifecta that distinctively operates in the military.⁵⁵ The factors included in the trifecta are the loss of personal and/or professional identity, the regulatory functions of self-harming behaviours, and the re-traumatisation service members experience as a result of the specific military culture and its services to veterans.⁵⁶ The uniqueness of the military trauma trifecta can best be understood in a social context. As discussed, the military is a highly organised, hierarchical culture that includes the loss of personal identity. The military culture exists to support the whole so that when one part of the whole appears under attack, others close rank to support the existing structures. The second part is found where a member of the military engages in some form of self-damage. This may involve cutting, self-starvation or some other means of inflicting harm on self.⁵⁷ Because of the military's emphasis on physical readiness, this maladaptive means of coping with anger or seeking to regain emotional control is more concerning and perhaps more disabling than it would be for a civilian. The third part of the trifecta

deals with a military member being re-traumatised from the military environment itself. Certain individuals, questioning practices, internal messages, or other actions may trigger reminders of the SA.^{58, 59}

Military sexual assault policy

In the 1990s, significant civilian legal reforms were enacted in Country to address SA for both men and women.⁶⁰ Initially, the reforms required colleges to disclose crime statistics and prevention activities to the public. The military followed suit, making revisions to its SA policies. Despite these changes, important issues associated with SA in the military went largely unattended until the commencement of the 2000 Air Force Inspector General (AFIG) investigation. This investigation precipitated the establishment of the DoD Sexual Assault Prevention and Response Office (SAPRO) whose purpose it is to investigate and respond to MSA claims.⁶¹ Next, in 2011 the Defence Sexual Trauma Response and Good Governance (STRONG) Act was passed.⁶² Many of these provisions of the bill were included in the National Defence Authorisation Act (NDAA) and have become law.⁶³ Provisions included that Military Protective Orders (MPOs) had to be made standing orders and that civilian authorities had to be notified when an MPO was issued and affected off-base personnel. Military personnel who had experienced MSA had a right to base transfer and counsel, and advocates were to be trained to assist victims.

In addition, the NDAA contained changes in federal law aimed specifically at the prevention of MSA.⁶⁴ Three prominent features of the legislation were designed to ramp up enforcement. Article 60 of the NDAA eliminated the commander's ability to modify sentences for serious offences, overturn guilty verdicts, or reduce findings to a lesser sentence. Article 32 eliminated the necessity for those who had experienced MSA to testify in a trial. Third, there were increased procedural requirements for commanders to follow when adjudicating SA cases, resulting in greater professional accountability.⁶⁵

Despite these efforts to reduce MSA, as well as the "Zero Tolerance" concept, a DoD report in 2014 concluded that MSA continued to be a significant problem in the Armed Forces in Country.⁶⁶ The rate of continued occurrences in Country remains unacceptably high. Both the increase in frequency of SA and continued low levels of reporting their occurrence to authorities are ongoing causes for concern.

Sexual assault prevention training

Studies on SA training support the positive psychological effects of teaching physical and protective strategies, such as martial arts self-defence training among non-military populations. For example, Weitlauf et al. studied 80 undergraduate women who completed a 12-hour self-defence training programme.⁶⁷ Pre- and post-test follow-up measures were administered to assess change as a result of participant involvement in this training. The results of the study by Weitlauf et al. revealed an increase in physical and global efficacy beliefs beyond the task-specific demands of the training. The participants reported an enhanced feeling of assertiveness after completion of training, and an improved sense of well-being.⁶⁸

Martial arts self-defence training not only attempts to increase participants' ability to physically protect themselves but it also attempts to increase or decrease psychological factors such as self-efficacy, self-determination, vigilance and vulnerability.^{69, 70, 71, 72, 73} These psychological factors were defined within a military context. Self-efficacy is defined as the extent to which a military member believes he or she is effective in performing his or her duties. Self-determination relates to a member's willpower and resolve.⁷⁴ Vigilance is the capacity to be proactive and attentive in evaluating environmental cues and intentions of others, while vulnerability is experiencing higher-end risk for SA and harm.⁷⁵

In 2012, the Country Air Force introduced the Gracie Defense Systems (GDS) training. The training is tailored to meet the unique needs of the military. It is comprehensive and includes strategies such as pre-emptive boundary setting, self-defence techniques, and jiu-jitsu training.⁷⁶ The attitudes and skills acquired through the training are believed to empower military personnel by means of increasing their self-efficacy, self-determination and vigilance, and decreasing their vulnerability.⁷⁷ Unfortunately, there is a dearth of empirical evidence supporting the effectiveness of GDS training in the military.^{78, 79, 80} Research validating this unique approach to preventing and protecting military members against SA is needed.

The present study examined the effectiveness of GDS training on military personnel at a base in the Midwest. The study was organised around four research hypotheses:

- H₁ – There will be a significant increase in participants' sexual assault awareness and empowerment after the completion of GDS training (one-tailed test).
- H₂ – There will be a significant difference between male and female participants' responses to the GDS training (two-tailed test).
- H₃ – There will be a significant difference between participants who had prior self-defence training and those with no prior self-defence training in terms of their level of sexual assault awareness and empowerment (two-tailed test).
- H₄ – There will be a significant difference between participants who had prior SA training and those with no prior SA training in terms of their level of sexual assault awareness and empowerment (two-tailed test).

Method

Participants

The GDS training and recruiting of military personnel was announced and posted by Air Force command at a major base in the United States. The training was made available to all male and female Air Force base personnel. Participants enrolled on a first-come, first-serve basis, with a maximum of 100 participants. The solicitation yielded 75 participants. Of the programme participants, 58 were male and 17 female. The majority (77%) was Caucasian and most were in the age range of 25–32 (42,6%). See Table 1 for details on the demographic make-up of the sample.

Measure

In order to create a survey that could measure the effectiveness of the GDS training, a thorough review of the literature was completed.^{81, 82, 83, 84} Items that appeared to measure SA awareness and empowerment and the underlying constructs of interest in this study (i.e. self-efficacy, self-determination, vigilance and vulnerability) were selected, modified and evaluated by a team of researchers. The result was a 42-item survey that used a six-point Likert-type scale with 1 being 'strongly agree' and 6 being 'strongly disagree'. The survey was reviewed and approved by the University's Human Subjects Review office as well as JAG officers at the Air Force Base.

Procedures

After the volunteers had been recruited and after they had agreed to participate, they were notified of the dates and times of the training. Upon arriving on the first day of training, a graduate research assistant (RA) asked all participants to complete the 42-item survey. Immediately following the training, the RA administered the same survey. All data was coded in a manner that ensured responses were anonymous.

Data analysis

A one-tailed paired *t*-test was chosen to examine the first hypothesis. Independent one-tailed and two-tailed *t*-tests were chosen to examine the second, third and fourth hypotheses. All analyses were conducted in SPSS Version 17. There were no missing data.

Results

In order to examine the overall effects of the GDS training, a total score was calculated by summing the items. A low score reflected more sexual assault awareness and empowerment. The paired one-tailed *t*-test was statistically significant with an almost 10-point mean decrease in total score (pre-mean 123.9 and post-mean 114; $f_2 = .41$) indicating positive changes. The independent two-tailed *t*-test used to investigate gender differences on pre-total and post-total scores was statistically significant with males changing by 8 points ($f_2 = .25$) and females by 14 points ($f_2 = .44$). These differences are presented in Table 2. Interestingly, the male pre-training baseline of 120 was equal to the female post-training baseline. Thus, the females ended with the same mean score as that with which the males began. Nonetheless, the data strongly suggested that the training yielded improvements for both males and females.

An independent two-tailed *t*-test compared the differences on pre- and post-total scores between those with prior self-defence training and those with no prior self-defence training. Significant differences were found between the two groups on their pre-training total score ($f_2 = .29$; small effect) but not on their post-training score. Those with prior self-defence training had a mean of 121 and those with no defence training had a mean of 128. These differences disappeared following the training with both groups having almost identical final scores. It appeared as though an "equalisation" process occurred where participants tended to have similar scores following the training.

Finally, an independent two-tailed *t*-test compared the differences on pre- and post-total scores between those with prior SA training and those with no prior self-defence training. No differences were found. Table 3 presents the mean differences between these two groups while Table 4 illustrates the distributions for these questions, with almost half (42,6%) of the sample having both SA and self-defence training before attending the GDS training and 11% not having any training.

Discussion

The study reported here examined the effectiveness of a martial arts ju-jitsu self-defence programme designed to empower military personnel in the Country Air Force in preventing and defending themselves against sexual assault (SA). Consistent with the hypotheses, the present research found that Gracie training was effective. Specifically, both males and females benefited from being involved. The overall positive effects of the GDS training programme appear to have influenced psychological factors, namely self-efficacy, self-determination, vigilance and vulnerability. Further results suggest that gender and prior self-defence influenced a participant's response. Women demonstrated a considerably greater gain when compared to men. The male pre-training baseline mean was 120, a number precisely equivalent to the female post-training mean score. This demonstrates that women, on average, scored at the same level after the training as men scored before the training. This disparity between males and females aligns with a model where those less prepared to defend themselves against SA (women) indeed are more commonly victimised by the act. As such, the present study further reinforced the importance of increasing opportunities for women in the military to gain training that will empower them in their ability to circumvent and protect themselves against SA.

Although participants with prior self-defence training had a statistically significant lower mean at baseline (121) when compared to those with no training (128), the post-total means were almost identical. Thus, those with prior self-defence training did not experience the same gains as those without training. Although this form of prior military self-defence training is unknown, these results indicate that any form of military self-defence training has lasting effects. Moreover, prior self-defence training may have had the unintended effect of slowing the acquisition or use of new skills. It could be hypothesised that those with prior self-defence training may naturally approach the GDS training within the frame of 'I already know this', and therefore contribute to a decreased acquisition of training skills.

The ratio of male and female participants mirrors almost identically the gender distribution of males and females in this US military branch. Participants volunteered in direct relationship to their gender distribution in the military ranks. It might have been anticipated that, due to the special investigation committees in recent years, the visibility given to the problem by the media, importance shown by base command, and genuine interest in the topic on the part of women themselves, women would have registered for GDS training in higher than proportionate numbers. They did not. This statistic was important and suggested that volunteering and SA prevention training registration patterns warrant further investigation.

Future directions

Although this was more exploratory than conclusive, it is clear that GDS training is effective. As a result, four main recommendations are put forth:

- the GDS survey should be field tested and validated;
- recruitment strategies that target women need to be created;
- a ‘train the trainer’ model should be developed; and
- there should be continual focus on improving SA policy in the military.

The questions included in the 42-item survey were selected after a thorough review of the literature and examination of the GDS curriculum. The total score of the survey is believed to measure overall empowerment and SA awareness, and includes four underlying constructs: self-efficacy, self-determination, vigilance and vulnerability. The importance of validating the survey is underscored by the positive results and the potential of having GDS training administered across the military. More studies need to be conducted in this area in order to further explain the relationship between martial arts training and underlying psychological factors, namely self-efficacy, self-determination, vigilance and vulnerability.

Given the intolerably high rates of women in the Country military experiencing SA and based on the empirical evidence in the present study, which demonstrated the significant gains experienced by women, it is recommended that future GDS trainings implement intentional recruitment methods to increase the number of female participants. Since the number of females who volunteered to become trainers was proportionate to the number of females in the military service, it is strongly recommended that additional measures be taken to attract more women to future trainings.

The development of a ‘train the trainer’ model where participants learn the techniques and teaching methodologies necessary to train other members of the military has the potential to be very fruitful. This type of model was recently successfully implemented at an air force base in Wyoming in 2014.⁸⁵ Over 80 military personnel completed an instructor certification course, which taught everything from preventing SA to physical self-defence techniques. It is extremely important to have well-qualified trainers instructing due to the sensitive nature of the content.

Finally, the under-reporting of MSA occurrence warrants strident response from the military and policymakers. To move policy reform forward with the understanding that MSA renders great harm to individuals, families and communities, implores practitioners, policymakers, and researchers to collaborate and identify the information and elements that are currently missing from American military policy.

Limitations

A major limitation of this study was the lack of a validated survey. It is believed that the 42-item measure yielded information on empowerment and sexual assault awareness

and four underlying psychological factors. However, larger samples are required and validation studies need to be completed before this can be concluded. Another limitation of this study was the lack of control over participant recruiting. Researchers were not consulted by the military base on how to recruit GDS participants. As such, the researchers were not able to establish protocols with regard to the ratio of male and female participants, prior SA or self-defence training, and a comparison group. Future application and study of GDS should incorporate more intentional participant recruiting methods.

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