Analyzing gender differences in cohesion levels and the impact of mentoring in the U.S. army

Amanda McCabe
Pacific University
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Abstract
Throughout the centuries cohesion has been studied for its positive impact on military personnel. Researchers have found it to be a protective factor that mitigates mental health symptoms. It is therefore important to assess the current environment in the Army to see if Soldiers are receiving the benefits from high cohesion levels and analyze ways to improve this protective factor. One method of increasing cohesion found in previous research is through the use of mentoring relationships. This study used a snow ball sampling method and assessed current levels of cohesion in the Army, any possible gender differences, and the added effects a mentor relationship has on reported cohesion levels. A sample size of 170 Soldiers completed an online survey that assessed cohesion, demographic information, and information on mentor relationships. Through means comparison tests it was found that for this sample there are no significant gender differences on reported cohesion levels and perceived barriers to mentor relationships. However, Soldiers’ who report having a mentor did report significantly higher levels of cohesion than Soldiers without a mentor. Interestingly, when broken down into the female population alone, no significant differences were found on cohesion levels for those with and without a mentor. These findings appear in contrary to previous literature, which suggests a possible new cultural change in the Army, differing views on the benefits of mentors from female Soldiers, or a possible sampling bias in this study. Future research should focus on a more diverse sample as well as examining other Military branches.

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ANALYZING GENDER DIFFERENCES IN COHESION LEVELS AND THE IMPACT
OF MENTORING IN THE U.S. ARMY

A DISSERTATION

SUBMITTED TO THE FACULTY

OF

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HILLSBORO, OREGON

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AMANDA McCabe

IN PARTIAL FULFILLMENT OF THE
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OF

DOCTOR OF PSYCHOLOGY

DECEMBER 13th, 2013
Abstract

Throughout the centuries cohesion has been studied for its positive impact on military personnel. Researchers have found it to be a protective factor that mitigates mental health symptoms. It is therefore important to assess the current environment in the Army to see if Soldiers are receiving the benefits from high cohesion levels and analyze ways to improve this protective factor. One method of increasing cohesion found in previous research is through the use of mentoring relationships. This study used a snow ball sampling method and assessed current levels of cohesion in the Army, any possible gender differences, and the added effects a mentor relationship has on reported cohesion levels. A sample size of 170 Soldiers completed an online survey that assessed cohesion, demographic information, and information on mentor relationships. Through means comparison tests it was found that for this sample there are no significant gender differences on reported cohesion levels and perceived barriers to mentor relationships. However, Soldiers' who report having a mentor did report significantly higher levels of cohesion than Soldiers without a mentor. Interestingly, when broken down into the female population alone, no significant differences were found on cohesion levels for those with and without a mentor. These findings appear in contrary to previous literature, which suggests a possible new cultural change in the Army, differing views on the benefits of mentors from female Soldiers, or a possible sampling bias in this study. Future research should focus on a more diverse sample as well as examining other
Military branches.

*Keywords:* cohesion, military, gender differences, mentor programs
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Analyzing Gender Differences in Cohesion Levels and the Impact of Mentoring in the U.S. Army

On January 24th, 2013 Secretary of Defense Leon Panetta lifted the centuries-old ban on women serving in combat roles (Fishel, 2013). Currently, the first women are beginning to pioneer their way into positions that have never before been available. These women will be facing many challenges, such as how to physically integrate into combat roles and field exercises. Men and women in integrated combat units will also be confronting social challenges, such as possible gender stereotypes and restrictive social expectations of gender roles. Given the cultural changes that the integration of women into combat teams will bring, it is important to revisit research on risk and protective factors for mental well-being within our nation’s military service members to help ensure that combat units integrated by gender will be a ready and powerful force.

One historically documented protective factor for mental well-being is cohesion levels among military personnel. Cohesion was originally studied as a factor that could increase chances of winning battles. However, research soon showed high levels of cohesion to be protective against “psychiatric reactions to war” (Gal, 1986), Posttraumatic Stress Disorder (Wright, Marlowe, Bartone, & Gifford, 1999), and depression (Tucker & Kelley, 2009). High levels of cohesion were also found to improve retention rates, work environment, and work satisfaction (Dreher & Cox, 1996).

Much of the past research on cohesion was focused on examining integration of
different races, genders and, more recently, sexual orientations into the military. However, it has been decades since any researcher has examined cohesion levels as affected by gender. Women now make up 14% of all United States Military personnel, with over 212,000 women on active duty (Tucker & Kelley, 2009). Despite the increased presence of women in the military, women have historically reported lower levels of cohesion than their male counterparts (Rosen, Bliese, Wright, & Gifford, 1999; Griffith, 1988). With combat roles for women representing such a significant change in policy, it is imperative to revisit the impact of gender integration on cohesion in order to pursue the best outcomes for all military personnel. It is especially important to examine women's experiences in the military because there are unique aspects to the role of being a female military personnel, which could have an added impact on their mental health in a male dominated culture. For example, Tarrasch, Lurie, Yanovich, and Moran (2011) investigated Israeli women's integration experience, and cited several differences unique to female military personnel such as women's added necessity of planning for families and the stress encountered when navigating the centuries-old predefined social norms established by men.

One proposed method of increasing cohesion within military units is through a mentoring program. Previous findings in the civilian workforce have shown that mentoring can provide benefits within the workplace, such as increased retention, satisfaction, and commitment to the organization (Adams, 1997). The military currently
uses an informal mentoring system that greatly benefits those who use it; however, this mentoring system has weaknesses that will be further discussed in this paper that prevent women from establishing and using mentors regularly. A formal system could help enhance unit cohesion and support the integration of women into combat roles within the military. The following literature review will examine previous research on the benefits of cohesion within the military and for the individual, the hypothesized status of current cohesion levels, the impact of mentoring on cohesion levels and, finally, the potential for formal mentoring programs to increase gender cohesion within the military. The primary focus of this study is to examine cohesion levels among current active duty Army Soldiers and to investigate the degree to which gender has an influence on those reported levels. The role mentorship plays on cohesion levels and any differences between males’ and females’ report of having a mentor will also be examined.

**Definition of Cohesion**

Throughout its years of extensive research, cohesion has been conceptualized in many different ways. Carron's (1982) definition of cohesion: “a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives” (p.124). A similar definition is given by Griffith (2002), who states that, “cohesion provides a sense of enjoyment and belonging, satisfies personal needs, helps in attainment of personal goals, and provides self-identify, and social support that enhances individual well-being, health and individual performance.” (p.59)
Although the given definitions, cohesion appears similar to the concept of social support. On the contrary, authors have identified important differences between them. Siebold (2007) defines cohesion as trust among group members and capacity for teamwork. He emphasizes that cohesion and social support are two different constructs that overlap at times, but that social support lacks the task-oriented aspect that cohesion embodies. Therefore, Siebold (2007) states, cohesion is the “extent to which group members provide support to one another so that group members stay on individual task roles and group tasks and goals (p.287).” This is similar to social support, which Siebold discusses as involving tangible support from others in the form of material assistance of information, advice, and guidance that helps the individual function effectively in daily life; however, social support does not emphasize working on a common goal. At the group level, cohesion affects members’ communication, sharing information and social approval, interpersonal attraction, cooperative interactions, decision making, and group performance.

Through further delineation of the construct, one finds there are two dimensions within cohesion: an interpersonal component and a task oriented component. The interpersonal factor is emotional, affective support, whereas the task oriented factor is support purely for the work at hand. The interpersonal part of cohesion is the aspect most similar to social support (Siebold, 2007).

Cohesion can also be broken down into two dimensions: vertical and horizontal
cohesion. The term vertical cohesion refers to the trust of one's leadership and support from one's supervisors. Horizontal cohesion refers to trust and bonding at the peer level. Griffith and Vaitkus (1999) asserted that the:

positive effects of unit cohesion on stress emphasize the formation of trust by an individual in both his or her compatriots and supervisors (horizontal bonding vs. vertical bonding); this trust is considered by military leaders to be the emotional foundation that prevents the breakdown of problem focused communication and problem solving under high levels of threat. (p.2)

**Benefits of Cohesion**

Throughout the history of war, political leaders, military officials, and civilians have been heavily invested in examining the military benefits of cohesion with the main purpose of winning battles. Gal (1986) claims that morale and cohesion were studied as early as 434 BC by the Greek military leader Xenophon. During the last century, cohesion has been studied in each major war in which the United States has fought: World War I (WWI), World War II (WWII), the Vietnam War, the first Gulf War, Operation Iraqi Freedom (OIF), and Operation Enduring Freedom (OEF). Through these studies and different eras, researchers consistently found that higher levels of cohesion improved job satisfaction, retention, and performance. Other researchers discovered cohesion mitigated some mental health symptoms of stress, posttraumatic stress disorder
(PTSD), anxiety, and depression. These studies will be discussed in more detail below.

Again, the earliest researchers focused on cohesion’s potential benefits for military performance. Oliver, Harman, Hoover, Hayes & Pandhi meta-analysis (1999) evaluated forty different studies on military personnel spanning almost 40 years (1952-1991). Oliver et al. assessed several outcome variables, including job satisfaction and performance in relation to self-report measures of cohesion. The studies that were included in the meta-analysis used several different types of measures to gauge cohesion in relation to other variables. Most studies utilized ideographic measures that were generated by the researcher, but several studies used one or more of the following surveys: the Army Research Institute Platoon Cohesion Index, the Military Environment Inventory or the Military Company Environment Inventory, the Israeli Combat Readiness Morale Questionnaire, and the Fundamental Interpersonal Relations Orientation-Behavior. Overall, job satisfaction and retention had large and significant effect sizes. Group cohesion was strongly correlated to soldier perceptions of job satisfaction, military satisfaction, and performance. Performance was further delineated into group performance and individual performance, with group performance defined as the overall effectiveness of the group on a task. Oliver et al. found group performance to be more strongly influenced by cohesion: the more connected the group, the better their overall performance. The researchers also concluded that group cohesion was positively related to retention, military readiness, and personal well-being.
However, the majority of the studies included in Oliver et al.’s meta-analysis were conducted in the 1980’s. A more recent study examining cohesion was conducted in 2002 by Griffith, who examined horizontal and vertical cohesion as well as instrumental (task) support and emotional (affective) support in relation to military performance and readiness. In order to do this, Griffith combined three previously established measures of cohesion, the Israeli Defence Forces’ Combat Readiness Morale, U.S. Army Research Branch's Field Forces' Questionnaire, and the Walter Reed Army Institute of Research's Company and Squad/Platoon Perceptions Questionnaire, and then used factor analysis to distinguish item groupings indicative of horizontal cohesion, vertical cohesion, instrumental support, and emotional support. Griffith compared each of the identified cohesion factors with the military variables of identification with one’s unit, disintegration or motivation to leave one’s unit, group and individual combat performance, perceived combat readiness, as well as mental health variables of stress and well-being. When conducting his analysis Griffith controlled for possible covariate factors such as branch assignment, rank, education, and minority status. Similar to Oliver et al.’s meta-analysis, Griffith concluded that overall cohesion showed a significant positive relationship to well-being, identification, individual combat performance, and group combat performance. Cohesion was also found to have a strong negative relationship with disintegration, or motivation to leave one’s unit. Furthermore, Griffith examined the relationship of these stated variables with four factors of cohesion: leader
emotional support (vertical cohesion, affective support), leader task support (vertical cohesion, instrumental support), soldier emotional support (horizontal cohesion, affective support), and soldier task support (horizontal cohesion, instrumental support). He found that well-being was most strongly related to leader emotional support and that leader emotional support was strongly negatively related to disintegration. However, Griffith also found that leader emotional support was negatively related to perceived individual and group combat readiness. In conclusion, Griffith found that cohesion has positive benefits on military variables of readiness and performance. He also found some indication that cohesion has benefits for individual mental health variables in the military setting.

Further evidence for cohesion's benefits can be found in international studies. One example of such research is Gal's 1986 study on morale with 1,200 Israeli Soldiers who were positioned in Golan Heights to defend Israel from terrorist attacks from Lebanon. The Combat Readiness Morale Questionnaire (CRMQ) was used to assess Soldiers' morale and cohesion. He found a strong correlation between self and unit morale and the perceived relationships with the commander. However, he found that unit cohesiveness only contributed to 17% of the variance in morale.

Many studies discuss cohesion as a benefit to performance, but few studies have actually examined the effects of cohesion while in combat. However, one study conducted by Gilbar, Ben-Zur, and Lubin's (2010), assessed Israeli Soldiers while in the
midst of duress similar to combat. The sample evaluated was taking part in the 2005
forced evacuation of civilians from their houses in the Gaza Strip, which the researchers
claim contained similar levels of duress as times of combat. The authors concluded that
during the evacuation, distress scores were negatively related to unit cohesion and
positive preparedness. This indicated that at the time of the assessment during the
evacuation, unit cohesion was a major military variable relating positively to effective
coping and relating negatively to distress. While this study offers valuable information
about the protective impact of cohesion for Soldiers under duress, it would be beneficial
to evaluate Soldiers while they are deployed into an active combat zone to offer a clearer
picture of the effects of cohesion on group combat performance.

The previous articles have discussed the military factors that benefit from a highly
cohesive group. These next articles discuss the individual mental health benefits that are
seen from highly reported levels of cohesion. To note a previously mentioned study,
Griffith (2002) found that personal well-being was strongly correlated with group
cohesion and that group cohesion had a negative effect on overall reported stress.
Wright et al. (1999) conducted a study on 1,025 Army enlisted Soldiers who were
deployed to the Persian Gulf during the first Iraq War. They found that reported levels of
cohesion mitigated reported levels of stress.

A more recent study conducted by Brailey, Vasterling, Proctor, Constans, and
Friedman (2007) assessed 1,579 Army and National Guard Soldiers from Combat Arms,
Combat Support, and Combat Service Support units for PTSD symptoms, negative life experiences, and cohesion levels. They used the PTSD Symptom Checklist and a modified version of the Deployment Risk and Resilience Inventory (King, King, Vogt, Knight, & Samper, 2006) to assess for cohesion. Through a regression analysis, the authors found that unit cohesion attenuated the impact of life experiences on PTSD. However, one possible limitation to this study is the inclusion of National Guard Soldiers. National Guard Soldiers usually have another full time job and work part time with the military. This unique dual job role allows for many other potential factors to affect cohesion levels, such as length of time served in the military, previous military experience, and length of time served together with other unit members.

High cohesion rates appear to have strong positive benefits for the military and for individuals serving in the military. However, most studies have been conducted on overwhelmingly male samples. Tucker and Kelley (2009) address this limitation by researching the effects of cohesion for 50 enlisted, single, Navy mothers, using the Inventory of Parental Experiences (IPE) to examine social support (cohesion at work and social support out of the work setting), positive and negative life stressors, and psychological distress. Through a multiple regression analysis, they found a combination of social support and life event stressors significantly predicted depressive symptoms. The combination of the two factors, social support and life events, accounted for 62% of the variance in depression. They also found that anxiety scores were significantly
correlated with work support, friend support, and negative life events. However, one limitation of this study to consider is the relatively small sample size.

Finally, in another recent study, reported by McCabe (2011), female U.S. Army Soldiers' experience of deployment was assessed. Eight women who had been deployed to a combat zone were interviewed to examine their experience of deployment. After analyzing the interviews the author concluded several themes related to “Challenges of Deployment” and “Reactions to Deployment.” However, before women began to speak of their challenges, they almost universally defined their entire deployment experience by how close they felt to their coworkers. The sample of 8 was nearly evenly divided, with five of the women saying that their deployment was the best experience of their military career because they were strongly attached to their coworkers and superiors. However, the other three members of the sample defined their experience as lonely, stressful, and challenging. Those Soldiers did not report feeling close to their counterparts. It appears very significant that the women tended define their experiences, and their military experiences, in regards to their relationships. These conclusions imply that cohesion or women’s perceived closeness with their coworkers has a strong impact on their overall military experience along with the previous literature indicating the importance of cohesion on Soldiers' mental health.

**Cohesion Gender Differences**

Given how important research has found cohesion to be for military performance,
readiness, retention, personal well-being, and mental health symptoms, it is important to examine if everyone is equally experiencing the benefits of cohesion. The impact of gender on cohesion levels was studied intensely as women began to integrate the Armed Forces. These first studies, however, looked at gender as a factor effecting overall group cohesion and, therefore, overall group performance, instead of examining the amount of cohesion women and men reported.

Two such studies were conducted by the U.S. Army Research Institute for Behavioral and Social Sciences in the 1970's. The researchers of these studies focused on the hypothesized negative impact women would have on a unit's cohesion, performance, and readiness during training scenarios. The Women Content in Units (U.S. Army Research Institute for the Behavioral and Social Sciences, 1977) sample comprised 40 combat support and combat service support units and was evaluated over a year and a half. The study concluded that the proportion of women contained within a unit had no significant effect on the operational capabilities of the unit. The authors of the second study (Johnson, Cory, Day, & Oliver, 1978) examined the performance of women during field exercises when troops were away from home for approximately six weeks. The sample comprised Soldiers in a variety of units: maintenance, medical, military police, signal, and supply and transportation. The authors attempted to match all females in their sample to males with the same company, pay grade, age (within two years), and length of service (within three months). Johnson and colleagues concluded that there were no
significant differences between mixed gender groups and all-male groups. To summarize, these two studies found gender to play little to no effect on a group’s overall performance.

Later studies looked at overall group cohesion and performance, but also included the individual’s reports of cohesion in order to examine any potential gender differences. One such meta-analytic study, spanning seven years, by Rosen et al. (1999) included five military studies that examined group cohesion versus percentage of female membership in the unit. Group cohesion was measured using a horizontal cohesion scale developed at Walter Reed Army Institute of Research. The five studies were conducted from 1988-1995 in two nondeployed settings and three deployed settings. The three deployed settings were in Somalia, a peace-keeping mission, Haiti, a peace-keeping mission, and the Persian Gulf, a combat situation. The sample sizes were large and consisted of a variety of units, ranks, ethnicities, and ages. The authors found that in four of the five studies there was a significant negative correlation between group cohesion and percentage of females in the unit. In other words, units with more female members tended to report lower levels of cohesion. Interestingly, the study with the strongest negative relationship between cohesion and female unit membership (the Somalia study) and the one study in which cohesion was not significantly negatively related to female unit membership (the Haiti study) were both conducted on units deployed on peacekeeping missions. The authors were able to identify some variables that may have
accounted for the differences observed between these two studies particularly. In the Somalia study there were three important environmental issues to consider: the mission commander instituted a policy of treating men and women differently, men had stronger reported support for the mission than did their female counterparts, and there was a high perception of danger. In the Haiti study, there was no documented policy of differential treatment based on gender, women had stronger reported support for the mission than did their male counterparts, and the mission was generally perceived as safe. These factors were all theorized, but not tested, to have an effect on group cohesion.

Another study examined the vertical and horizontal dimensions of cohesion amongst the genders. Rosen et al. (1996) examined gender differences in both the horizontal and vertical dimensions of cohesion using data from a sample of 1,584 U.S. Army Soldiers in combat service support units assessed in 1988. The authors looked at general well-being, combat readiness, acceptance of women, and horizontal and vertical cohesion. Rosen and colleagues concluded that males reported higher levels of horizontal cohesion, combat readiness, and general well-being, while women scored higher on acceptance of women. Through a multiple regression test the authors found that unit gender ratio was the only significant predictor of horizontal cohesion for junior enlisted males, accounting for 43% of the variance, with fewer female members being associated with higher horizontal cohesion for the males in that unit. Cohesion was also found to have a strong correlation with overall well-being, suggesting that women were
not experiencing this possible protective factor to the same degree as were men.

Wright et al. (1999) conducted a study on 1,025 Army enlisted Soldiers who were deployed to the Persian Gulf during the first Iraq War. They assessed the Soldiers on three levels of stress (anticipation of combat, personal stress, and operational stress), psychological symptoms of distress, hardiness, and group cohesion. The authors found that females scored higher than men did on all three tests of stress, with the biggest difference between the sexes on anticipated combat distress. The next greatest difference between the sexes was on horizontal cohesion. Female Soldiers scored lower on the measure of horizontal cohesion than male Soldiers, indicating these women felt less close to their counterparts than did the men in the sample. Finally, the authors found that women had more symptoms of psychological distress then men. However, women were equal to men in their resiliency. Through correlational analyses, the authors found that horizontal cohesion was associated with a lessening of distress symptoms for men, but not for women. In summary, the authors of the previous studies all appear to conclude that women feel less cohesive with their peers than men, which could have a negative impact on their overall general well-being.

With the most recent examination of gender differences in cohesion being over 10 years ago, it is important to consider the current environment when hypothesizing about current gender differences in cohesion levels. There are several factors that have been shown to negatively impact the current Army environment for female Soldiers, which
would negatively affect their perceived levels of cohesion. These factors have been thoroughly researched and documented as affecting cohesion and warrant a brief discussion: the traditional male dominated environment, gender stereotypes, and sexual harassment.

Tarrasch et al. (2011) studied the impact of a masculine, traditional culture on Soldiers in the military. In the Army, certain promotions and positions come with accompanying prestige and power. For example, the position a soldier has in the Army can dictate the simple status symbol of what house a soldier lives in on base. While women now have the opportunity to work in prestigious combat positions that were never available before, they will likely face uncertainty and possible scrutiny because of the newness of this position. Further, Tarrasch et al. (2011) stated that the perceived forced introduction of females into the male dominated society of most militaries can be a blow to the status quo, and therefore the military leaves women to confront rejection, alienation, prejudice, and discrimination within their units.

In a paper summarizing a conference on women’s leadership in the Army, Colonel (COL) Terry (1996) cited three challenges the female participants said all females in the Army encounter. The first challenge was obtaining recognition. COL Terry discussed how it is harder for women to reach the top levels compared to their male counterparts and that, if women do arrive in leadership positions, it usually takes more work than what is expected of males. The second challenge women face is the way in which expected
leadership qualities are focused on traditional masculine traits such as being competitive, confrontational, analytical, goal oriented, authoritative, and that a woman’s leadership ability is often questioned if she does not “act like a leader should” (p.5). The third challenge is the lack of women role models and the fact that most female officers present at the conference acknowledged they avoid being involved in women's issues or networks due to the current mentality that, in order to be successful, one has to shake off most identification with the female status. In conclusion, it appears that there are many challenges faced by women when navigating a male dominated system such as the military. It appears that most women have thought to be successful they have to be less female and more like males. These challenges are hypothesized to negatively impact women’s experiences and, therefore, their reported cohesion levels.

Along with navigating a male dominated culture, female Soldiers or military personnel, at times confront gender stereotypes. A study conducted by Boyce and Herd (2003) examined the relationship between gender role stereotypes and military leadership characteristics in the Air Force. The authors hypothesized that, due to the male dominated academy, Air Force culture would inherently adhere to a more male dominated view of successful officers. To test their hypothesis, the authors surveyed 755 cadets, all in various years, at the Air Force Academy to see how their perceptions of leaders in the Air Force correlated with stereotypical male and female traits. They found a significant positive correlation between the characteristics of a successful officer and the common
characteristics of a man. This correlation was found for both female and male cadets who were rating attributes of successful officers. However, one possible limitation of this study is the possible limited exposure to female leadership in the Air Force the cadets may have had. When surveyed, one third of the cadets reported never having had a female direct supervisor and only one fourth reported having had at least two female commanders. The lack of experience with female superiors would have an impact on the cadets’ responses and could possibly influence their responses to appear more in favor of male leadership.

Alarmingly, Lipari, Cook, Rock, and Matos (2008), noted, on behalf of the Department of Defense, that 9% of women in the military reported experiencing some form of sexual coercion. Some examples of sexual coercion included feeling threatened with retaliation for not being sexually cooperative or believing better treatment was implied if they were sexually cooperative. The authors also found that over half of the women in the military, 52%, reported experiencing other offensive sexual behaviors, such as being told offensive sexual stories or jokes, or experiencing unwelcome discussions on sexual matters.

Authors of another study examining sexual harassment (Vogt, Pless, King, & King, 2005) found, while assessing stressors encountered by Gulf War I Veterans, that female Soldiers reported experiencing more situations of sexual harassment than men did and also reported being more greatly affected by that harassment than did men who
experienced sexual harassment. The authors reported women perceived receiving less deployment social support than their male counterparts, and that the lack of social support was strongly correlated with depression. Lack of social support and family/relationship problems was highly correlated with anxiety levels, but the authors found this had a stronger impact on women than men. The authors conclude that women experienced higher levels of sexual harassment, but also lower levels of social support, which made them more vulnerable to mental health issues.

These mentioned variables of navigating a male dominated culture, gender stereotypes, and sexual harassment are all possible challenges that women face in the military and may partially account for documented gender differences in group cohesion. It is, then, very important to look at ways to increase female Soldiers’ cohesion levels.

Methods of Increasing Cohesion

Most authors examining ways to increase cohesion for military units have based their hypotheses around increasing or improving the identified interpersonal and task-oriented components of cohesion on both horizontal and vertical dimensions. In regards to horizontal cohesion at the interpersonal level, a cohesive group requires trust, shared group membership, and similarity of attitude (MacCoun, 1996; Siebold, 2007). For horizontal cohesion at the task-oriented level, a cohesive group also must possess trust that they can accomplish a job, capacity for teamwork, successful experiences, and shared commitment to the job (MacCoun, 1996; Siebold, 2007). For a group to be truly
cohesive along the horizontal dimension, both components must be present. For example, a group that is formulated entirely on social relationships might not be able to perform tasks together and, vice versa, a group that works well on tasks together does not always socialize together.

Several researchers, such as MacCoun (1996), Siebold (2007), and Jozwiak (1999), have come up with techniques intended to increase horizontal cohesion: increased time and proximity, group tasks that require a high degree of coordination, rigorous training, commitment to job, and exposure to threat. Regarding increased time and proximity, it is hypothesized that, by forcing groups to interact, the group members will communicate more and begin to foster trust and shared experiences. In the Army during certain military exercises, members of a unit often do everything together. Soldiers will eat all three meals together, exercise together, and sleep in the same tents together. This shared space and time allows for greater chances of increased cohesion through shared experiences, which in turn is thought to foster trust in the groups' ability to accomplish a task. Rigorous training and exposure to threat is thought to increase cohesion according to a similar process. When a group is able to successfully navigate threats (such as combat) or intense training, the group members gain confidence in their work ability. This training can also facilitate social relationships through shared activities.

Currently the Army models most of its training from this research. Units often undergo intensive training in order to facilitate the groups' ability to accomplish tasks
while at the same time fostering social relationships. However, research has also indicated that time helps to facilitate the formation of a cohesive group, and the Army and military in general have been criticized in the past for too-frequent turnover (Furukawa et al., 1987; Jozwiak, 1999). Horizontal cohesion was hard to accomplish with Soldiers’ time in jobs averaging one and a half to two years. The military has recently been attempting to stabilize its troops and leadership in jobs longer to improve performance and cohesion.

Most of the variables that increase horizontal cohesion also hold true for vertical cohesion, defined as trust of one's leadership. Again, many of the same characteristics that contribute to interpersonal and task-oriented components of cohesion with one's peers hold true for cohesion with one’s leadership: trust fostered by spatial and temporal proximity, shared group membership, and similarity of attitudes, plus confidence in ability to accomplish a mission, and shared successes. However, there are several unique contributing factors to vertical cohesion, including an open channel for communication, clear and concise expectations, and ability to teach new skills (Furukawa et al., 1987; MacCoun, 1996; Siebold, 2007). In their evaluation, Furukawa et al. (1987) also noted that strong leader training as well as consistency in leadership (staying with a unit for an extended period) allowed for more cohesive and productive groups. Trained leaders know how to help and how to teach others below them in an effective manner. It is also important to have predictable expectations as well as consistent methods for getting
individual needs met, such as predictable pay and training schedules. Leaders who also appear open to feedback or suggestions earn loyalty and trust from Soldiers. Another way to earn trust is for leaders to demonstrate their support of Soldiers by showing that they care about their Soldiers and their Soldiers' families. Importantly, researchers often found that vertical cohesion, or a lack thereof, could have a positive or a deleterious effect on horizontal cohesion.

Many of the factors increasing vertical cohesion are present in a mentoring relationship: open channel of communication, teaching of new skills, increased time and proximity, and emotional support of Soldiers. It is hypothesized that having a mentor, or a superior who takes an interest in one's career, could be immensely beneficial to a person's feelings of vertical cohesion, which could also be reflected in increased horizontal cohesion. The benefits of mentoring relationships and a formal mentoring program will now be discussed as a possible solution to the challenges for females previously discussed.

**Mentoring Programs**

As stated above, women encounter unique problems when working in the military that may contribute to documented historical gender differences in level of cohesion: navigating a predominately male society, encountering possible gender discrimination and tokenism, encountering possible sexual harassment, as well as physiological differences that set women apart. Women are at a physical disadvantage when it comes
to men and women also have the added pressure to plan careers around possible families. With all these challenges encountered in the Army there are also great opportunities for women. Access to mentoring could greatly assist female Soldiers in navigating the military environment and achieving higher levels of cohesion with their leaders and peers.

Mentors can help facilitate trust in one's leadership, can help reestablish one's commitment to the mission, and can help increase feelings of group membership. These are all noted ways to increase cohesion, as well as benefits to having a mentor. Comparative research consistently shows that employees with a mentor fare better than employees without. Colarelli and Bishop (1990) show that protégés tend to have greater career commitment than employees without a mentor, and Scandura (1992) further shows that protégés enjoy increased career mobility.

One pivotal study examined the benefits of having a mentor in the civilian sector. Fagenson (1989) conducted a study of 246 employees in the health care industry to see what benefits were available to those who had a mentor compared to those who did not have a mentor. She used questionnaires, which were obtained mostly through Hackman and Oldham's (1980) Job Diagnostic Survey and Kipnis and Schmidt's (1980) Management Survey Audit. Employees were asked about their job satisfaction, career mobility/opportunity, recognition, security, and promotion rate. Through use of a MANOVA, Fagenson found a significant effect for the mentor variable. Specifically,
those who had a mentor reported more satisfaction, greater career mobility/opportunity, more positive recognition, and higher promotion rate than those who were not mentored.

Mentoring can be especially beneficial for women in the workplace. Adams (1997) notes that females who are in mentoring relationships fare better in organizations than those who do not develop mentoring relationships. A mentor can teach a female protégé the ins and outs of an organization, unwritten rules of corporate politics, upcoming job openings, and changes in the organization's technology, structure, and strategy. Adams states that, most importantly, a mentor is invaluable in helping women overcome gender related obstacles and providing growth opportunities. They can help women feel more welcome and accepted, which in turn helps them feel better about their environment and more connected to their peers. A mentor can also be a contact person if a woman is faced with possible issues of gender stereotyping or even sexual harassment. Adams goes on to state that the organization also benefits, as future leaders are prepared employees who are more satisfied and committed than those who are not mentored. Dreher and Cox (1996) concur that it is especially important for females and ethnic minorities to have a mentoring relationship because it has been shown that a mentoring relationship provides increased access to influential decision makers. Extending the arguments of these authors to the military, one can conclude that mentoring could be an effective answer to the challenges that women experience in the Army.

However, one of the challenges women encounter while attempting to gain or
maintain a mentor relationship is the lack of female role models. This has already been cited as one of the challenges women face in the Army. Women must therefore often look outside of their gender for a mentoring relationship, which results in its own challenges, such as different role expectations and the potential need for one person to change their style in order to adapt to the other person’s style. Another challenge encountered in opposite gender mentor relationships, as Adams (1997) states, is the possibility of anxiety developing regarding intimacy and physical attraction. Women fear that attempting to initiate the relationship could be misconstrued as a sexual approach. Further, others outside of the relationship could misconstrue the relationship and perceive it as a sexual one, which would lead to negative consequences for the mentor and protégé.

One possible approach to address many of these limitations and difficulties of women gaining access to informal mentoring is the implementation of a formal mentoring program in the U.S. Military. This would hopefully deter the possible anxiety over misconstrued relationships. This could also help women gain access to relationships in the face of limited options.

Ragins, Cotton, and Miller (2000) noted there are a variety of mentor programs emerging throughout the country in response to literature documenting the benefits of a mentor relationship. The authors found that formal mentor programs can be beneficial to the protégé as long as the relationship is rated satisfactorily. The reported benefits from
these formal, highly satisfying relationships include greater job satisfaction, organizational commitment, satisfaction with opportunities for promotion, career commitment, organization-based self-esteem, and procedural justice with lower intentions to quit. These benefits were reported at higher levels for those with satisfying mentor relationships than for those without a mentor or those who reported being unsatisfied with their mentor relationship. The authors noted that the design of any formal mentor program will be overshadowed by the degree of satisfaction found in the relationship. Therefore they proposed that future research identify ways formal mentor programs can improve satisfaction in relationships.

In conclusion it appears that positive, satisfying mentor relationships can add many benefits to the organization and to the protégé, including commitment to the organization, commitment to one's career, and improved organizational self-esteem. These benefits overlap with factors documented to increase a soldier's vertical and horizontal cohesion. Through strong mentor relationships and a formal mentorship program, a soldier's level of cohesion could increase, which would help that soldier navigate any possible career or life obstacles he or she meets.
Purpose of the Current Study

The research reviewed above demonstrates that high levels of cohesion have a strong positive effect on overall well-being, retention, views on the Army, and perceived combat readiness. Cohesion also serves as a protective factor against PTSD, anxiety, and depression symptoms. Unfortunately, review of the literature indicates that women have historically reported significantly lower levels of cohesion compared to men. As mentoring has documented benefits that parallel factors identified as increasing cohesion, it is thought that access to mentors through a formal mentorship program may increase cohesion for women in the Army.

This study employed a mixed methods design in order to better understand the current state of cohesion in the Army and how mentoring relationships may or may not be affecting cohesion. Current cohesion levels for men and women in the Army and current access to a mentor were examined quantitatively. Perceived availability, experiences, barriers, and benefits of mentor relationships in the Army for men and women were examined qualitatively.

Quantitative Hypotheses:

1. Even with increasing numbers of women in the military and with the advances the military has made in integrating women into the field, female military personnel will report lower levels of cohesion compared to male military personnel.

2. Soldiers who report having a mentor will report higher levels of cohesion than those
without.

3. Women who have a mentor will report higher levels of cohesion than women without a mentor.

4. Women will report more barriers to accessing mentor relationships than men.

**Qualitative Questions**

These questions were exploratory in nature and therefore no specific hypotheses were formulated. Please see Appendix B for a full list of questions used.

1. How many Soldiers report having a mentor? What does this relationship look like?

2. How did people acquire their mentor and how easy was it to attain this relationship?

3. What are some noted benefits of having a mentor in the U.S. Army?

4. What are some noted barriers to accessing a mentor in the U.S. Army?
Method

Participants

Participants for this study were 170 active duty members of the United States Army. Most importantly, this sample included a wide variety of people, across different ages, genders, ethnicities, ranks, and branches within the Army (e.g., Combat Arms, Combat Arms Support, etc.) in order to best reflect the current demographics of the Army. Recent statistics show the Army consists of 14% females and 38% racial/ethnic minorities; however, it is currently unknown how many Soldiers report as gay or lesbian (Maxfield, 2011).

Participants were recruited through snowball sampling methods, via recruiting emails and through word of mouth. The researcher disseminated a recruiting email to all possible participants who were personally known current active duty Soldiers, seeking volunteers for the study. A link with the survey as well as a request to forward the survey on to other possible participants was included in the email. The following inclusion and exclusion criteria were used for individual participants: English speaking adults, age 18 years or older, who were serving in the Active Duty Army. The National Guard, Army Reservists, and other military personnel not in the Army were excluded from the survey to help eliminate possible extraneous variables.

Over 260 Soldiers attempted the survey. After eliminating respondents who did not complete all items on the cohesion measure, the sample was reduced to 170
participants. Please see Table 1 for full demographic information on the sample. Of the 170 Soldiers who completed the survey, 129 identified as male and 41 identified as female (24.1% of the sample). The mean age was 33.14 years old, and the sample was overwhelmingly Caucasian (73.5%). The majority of the sample (64.7%, N= 110) identified as Officers and 35.3% (N= 60) identified as Enlisted Personnel. Soldiers were also able to report their specific Army branches; please see Table 2 for further details. The majority of the sample was in the Air Defense Artillery branch at 29.4% (N= 50), and the second most represented branch was Infantry at 12.4% (N= 21).
### Table 1

*Sample Characteristics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>% of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>41</td>
<td>24.1%</td>
</tr>
<tr>
<td>Male</td>
<td>129</td>
<td>75.9%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-25</td>
<td>33</td>
<td>19.4%</td>
</tr>
<tr>
<td>26-30</td>
<td>55</td>
<td>32.4%</td>
</tr>
<tr>
<td>31-35</td>
<td>21</td>
<td>12.4%</td>
</tr>
<tr>
<td>36-40</td>
<td>21</td>
<td>12.4%</td>
</tr>
<tr>
<td>41-45</td>
<td>18</td>
<td>10.6%</td>
</tr>
<tr>
<td>46-50</td>
<td>15</td>
<td>8.8%</td>
</tr>
<tr>
<td>51-55</td>
<td>3</td>
<td>1.8%</td>
</tr>
<tr>
<td>56-60</td>
<td>3</td>
<td>1.8%</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>125</td>
<td>73.5%</td>
</tr>
<tr>
<td>Multi-Racial</td>
<td>22</td>
<td>12.9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>15</td>
<td>8.8%</td>
</tr>
<tr>
<td>Asian/ Pacific Islander</td>
<td>4</td>
<td>2.4%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>2.4%</td>
</tr>
<tr>
<td><strong>Rank</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Officer</td>
<td>110</td>
<td>64.7%</td>
</tr>
<tr>
<td>Enlisted</td>
<td>60</td>
<td>35.3%</td>
</tr>
</tbody>
</table>
Table 2

*Participant Branch of Army*

<table>
<thead>
<tr>
<th>Branch</th>
<th>Number of Participants</th>
<th>Percent of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Defense</td>
<td>50</td>
<td>29.4%</td>
</tr>
<tr>
<td>Infantry</td>
<td>21</td>
<td>12.4%</td>
</tr>
<tr>
<td>Medical Services</td>
<td>17</td>
<td>10.0%</td>
</tr>
<tr>
<td>Engineer</td>
<td>12</td>
<td>7.1%</td>
</tr>
<tr>
<td>Quartermaster</td>
<td>11</td>
<td>6.5%</td>
</tr>
<tr>
<td>Signal</td>
<td>8</td>
<td>4.7%</td>
</tr>
<tr>
<td>Field Artillery</td>
<td>7</td>
<td>4.1%</td>
</tr>
<tr>
<td>Ordnance</td>
<td>7</td>
<td>4.1%</td>
</tr>
<tr>
<td>Adjutant General Corps</td>
<td>7</td>
<td>4.1%</td>
</tr>
<tr>
<td>Military Police</td>
<td>7</td>
<td>4.1%</td>
</tr>
<tr>
<td>Aviation</td>
<td>5</td>
<td>2.9%</td>
</tr>
<tr>
<td>Armor</td>
<td>4</td>
<td>2.4%</td>
</tr>
<tr>
<td>Military Intelligence</td>
<td>4</td>
<td>2.4%</td>
</tr>
<tr>
<td>Finance</td>
<td>2</td>
<td>1.2%</td>
</tr>
<tr>
<td>Chemical</td>
<td>2</td>
<td>1.2%</td>
</tr>
<tr>
<td>Transportation</td>
<td>1</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

**Measures**

*Combat Platoon Cohesion Questionnaire (CPCQ)*

Group cohesion was measured using several subscales of the Combat Platoon Cohesion Questionnaire (CPCQ), which was developed at the Walter Reed Army Institute of Research during the 1980’s (Siebold & Kelly, 1988). The CPCQ has 98 items with
responses ranging on a Likert-like scale from one, “strongly disagree,” to five, “strongly agree.” There are eleven subscales that comprise the measure: Horizontal Bonding-Affective; Horizontal Bonding-Affective, Leaders; Horizontal Bonding-Instrumental; Vertical Bonding-Affective; Vertical Bonding-Instrumental; Organizational Bonding-Affective, Leaders; Organizational Bonding-Affective, Pride; Organizational Bonding-Instrumental, Anomie (regarding the motivating for work environment); and Organizational Bonding Instrumental, Goals. The subscales used for this research project were Horizontal Bonding-Affective; Horizontal Bonding-Affective, Leaders; Horizontal Bonding-Instrumental; Vertical Bonding-Affective; and Vertical Bonding-Instrumental, which together measure the degree of bonding among peers on the small unit level as well as the bonding with immediate supervisors.

In regards to reliability, the authors estimated the reliability for each scale. There were five scales used in the previous study, the following are the list of scales with their alphas: Horizontal Bonding-Affective: .86, Horizontal Bonding Affective, Leadership: .82, Horizontal Bonding Instrumental: .83, Vertical Bonding, Affective: .91, and Vertical Bonding Instrumental: .91. The authors placed 19 items in the survey to assess construct validity and also estimate criterion validity. Each horizontal and vertical bonding scale correlated with the general cohesion construct to a moderate degree and with their specific constructs to a much higher degree. Correlations ranged from .55 to .91 (with all correlations being significant at the .001 level). Within the confines of the questionnaire,
the scale-construct correlations demonstrated good construct validity.

The measure also contained items with which cohesion should be associated, including the ability to perform under stress, whether the platoon was high performing, platoon morale, readiness, and the state of discipline in the platoon. The cohesion scores were thought to be able to predict people's responses to the items estimating these platoon characteristics. The cohesion scales were least correlated with the readiness criterion, which appears to represent a wider and more complex factor. Cohesion was highly correlated with the morale criterion. The authors state that “within the questionnaire, the CPCQ.... the scales demonstrated reasonable predictive validity with items estimating various other relevant platoon characteristics.”

**Demographics Questionnaire**

A demographics questionnaire was created for purposes of this study, which helped ensure a balanced sample. The researcher was able to monitor the diversity of the sample in regards to the traits of rank, branch of the Army, age, sex, and ethnicity. The first two characteristics of rank and branch were thought to be possible covariates. However, not enough diversity of the sample was attained to be able to test for these variables statistically. The demographic questions appear in Appendix B.

**Mentoring Questionnaire**

The researcher developed several questions about mentoring in the Army for purposes of the current study. One question defined mentoring and asked if the soldier
was participating in a mentoring relationship at the time of the survey. This question included a brief definition of a mentoring relationship as well as an example of a possible relationship. There were also several questions to assess benefits and barriers to a mentoring relationship as well as questions about importance that gender plays when looking for a mentor. Questions included checklists as well as free-response text box formats. Please see Appendix B for the full list of questions.

**Research Design & Procedure**

This study uses quantitative and qualitative data to enhance the understanding of cohesion and the use and accessibility of mentor relationships in the Army as well as the benefits of and barriers to those relationships. A secure and anonymous online survey housed the informed consent and study measures.

Quantitative data was downloaded from the online survey to a secure database and analyzed using SPSS for frequency and group differences questions. The qualitative data, information received from the free response questions, was analyzed using guidelines that Smith and Osborn (2008, Chapter 4) formulated for analyzing interviews. This approach was tailored to assess the shorter free response answers from this survey. The responses were read twice to highlight important phrases or words that were vital to the participant's experience. The phrases were then organized into higher, more general categories. Final themes were collected in the last phase by connecting similar patterns and thoughts.
Results

Cohesion Scores

Overall, on the CPCQ, the sample reported moderate to high levels of cohesion ($M=135.74$, $SD=30.5$). Participants’ scores ranged from 28 to 184.

The first hypothesis regarding cohesion was that female Soldiers would report lower levels of cohesion than male Soldiers. An independent-samples $t$-test was conducted to evaluate this hypothesis. Levene's test was used to test for Equality of Variances and was not significant, $p = .36$, indicating that the two groups’ variances were equal. In regards to the Assumption of Normality, the Shapiro-Wilk test was $p = .05$ for the female group and $p < .001$ for the male group. While it was significant for the male group, sample size probably played a role and the goodness of fit test was identifying it as a nonnormal distribution; therefore, visual inspection of the histograms revealed that it appears to be relatively bell-shaped. Although women ($M=131.59$, $SD=34.31$) reported on average lower levels of cohesion than men reported ($M=137.06$, $SD=29.22$), the independent $t$-test was found to be not significant, $t(168) = -1.00$, $p = .32$. The 95% confidence interval for the difference in means ranged from -16.28 to 5.32. The eta square was .006, which is a very small effect.

The second hypothesis was that Soldiers with a mentor would report higher levels of cohesion than Soldiers without a mentor. Of the sample, 54.7% ($n=93$) indicated they
currently had a mentor and 45.3% (n= 77) said they did not have a mentor. An independent samples t-test was conducted to evaluate the second hypothesis. Levene's test for Equality of Variances was found to be significant, p = .032, indicating that equal variances cannot be assumed and, therefore, the transformed data was used. The Shapiro-Wilk test for Assumption of Normality was found to be significant, p < .001 for the group with mentors and p < .001 for the group without mentors, indicating that this sample was not normally distributed. The overall independent samples t-test was significant, \( t(143.62) = -2.22, p = .03 \). Soldiers with mentors (\( M =140.52, SD = 26.78 \)) reported on average higher levels of cohesion than those without mentors (\( M = 129.97, SD = 33.73 \)). The 95% confidence interval for the difference in means ranged from -19.92 to -1.16. The eta square index was .03, falling between a small and medium effect.

The third hypothesis was that women with a mentor would report higher levels of cohesion than women without a mentor. Of the women in the sample, 23 (56.1%) reported they had a mentor and 18 (43.9%) reported they did not have a mentor. An independent samples t-test was conducted. Levene's test for Equality of Variances was not significant, \( p = .11 \). The Kolmogorov-Smirnov test was not significant for the female group without a mentor, \( p = .20 \), or for the female group with a mentor, \( p = .20 \). The independent samples t-test results were not significant, \( t(39) = -.86, p = .03 \). However, women with mentors (\( M =135.66, SD = 28.72 \)) did report, on average, higher levels of cohesion than women without a mentor.
cohesion than those women without mentors ($M = 126.33, SD = 40.62$). The 95% confidence interval for the difference in means ranged from -31.27 to 12.55. The eta square index was .02.

In regards to the fourth and final hypothesis that women would report more barriers to accessing a mentor than men, the first step in the analysis was to collect frequency data. In the survey, Soldiers had the opportunity to endorse any item from a list of possible barriers to accessing mentors. Table 3 displays this data for the whole sample, per gender, and per mentor status. The most frequently endorsed barrier for the entire sample was the “lack of formal mentor programs” at 35.3% of the responses. An independent samples $t$-test was conducted to evaluate the final hypothesis. Levene's test for Equality of Variances was found to be significant, $p = .021$, indicating that equal variances cannot be assumed and, therefore, the transformed data was used. The overall independent samples $t$-test was not significant, $t(54.66) = 1.50, p = .14$. The trend in the data was that male Soldiers ($M = 0.98, SD = 0.83$) reported on average less barriers than female Soldiers ($M = 1.27, SD = 1.12$), but no significant difference was found. The 95% confidence interval for the difference in means ranged from -.10 to .66.
Table 3

<table>
<thead>
<tr>
<th>Reported Barriers</th>
<th>Total Sample</th>
<th>Male</th>
<th>Female</th>
<th>Have Mentor</th>
<th>No Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of formal mentorship programs</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td></td>
<td>60 (35.3%)</td>
<td>46 (35.7%)</td>
<td>14 (34.1%)</td>
<td>52 (17.2%)</td>
<td>5 (6.5%)</td>
</tr>
<tr>
<td>Not enough mentors available</td>
<td>43 (25.3%)</td>
<td>35 (27.1%)</td>
<td>8 (19.5%)</td>
<td>33 (15.1%)</td>
<td>6 (7.8%)</td>
</tr>
<tr>
<td>Limited options for female mentors</td>
<td>18 (10.6%)</td>
<td>8 (6.2%)</td>
<td>10 (24.4%)</td>
<td>15 (4.3%)</td>
<td>1 (1.3%)</td>
</tr>
<tr>
<td>Limited options for mentors of same ethnicity</td>
<td>9 (5.3%)</td>
<td>6 (4.7%)</td>
<td>3 (7.3%)</td>
<td>6 (4.3%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>No identified barriers</td>
<td>47 (27.6%)</td>
<td>36 (27.9%)</td>
<td>11 (26.8%)</td>
<td>43 (11.8%)</td>
<td>6 (3.5%)</td>
</tr>
<tr>
<td>Other</td>
<td>49 (28.8%)</td>
<td>32 (24.8%)</td>
<td>17 (41.5%)</td>
<td>30 (8.6%)</td>
<td>8 (10.4%)</td>
</tr>
</tbody>
</table>

Soldiers were also able to write in their own barriers to accessing a mentor. This
data answers the fourth qualitative question about barriers reported by Soldiers. Out of
the entire sample, 63 people gave an additional barrier to accessing a mentor. Three of
those responses did not answer the given question and seven of those responses were
outliers with no connection to the other responses. This left 53 total responses. There
were 25 female responses and 28 male responses. These statements were analyzed for
pervasive themes. The number one reported theme was a “lack of quality Soldiers available to mentor.” For example, some statements were, “good people in general are sometimes hard to find;” “very few people that I would actually want to emulate;” and, “the quality of mentors is erratic...” The second most reported theme of barriers to mentors was a “lack of people who desire to be mentors.” Several responses were, lacking “superiors who have the genuine desire to mentor” and “it's been my experience that most senior officers aren't really interested in being a mentor. It takes a specific type of personality, which unfortunately seems to be few and far between.” Finally, the third most reported barrier to accessing mentors was “time.” Two responses were, “potential mentors too busy to assist due to their own demands on time” and “everyone is busy.”

See Table 4 for a list of themes of reported barriers, and the breakdown of these themes per gender.

Table 4

<table>
<thead>
<tr>
<th>Themes to Reported Additional Barriers to Mentors</th>
<th>Total Participants who wrote in a Barrier</th>
<th>Females</th>
<th>Males</th>
<th>With Mentor</th>
<th>Without Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Quality Mentors</td>
<td>N(%)</td>
<td>N(%)</td>
<td>N(%)</td>
<td>N(%)</td>
<td>N(%)</td>
</tr>
<tr>
<td>24 (45.3%)</td>
<td>14 (56.0%)</td>
<td>9 (32.1%)</td>
<td>11 (32.4%)</td>
<td>13 (44.8%)</td>
<td></td>
</tr>
<tr>
<td>Limited People who Desire to Mentor</td>
<td>10 (18.9%)</td>
<td>3 (12.0%)</td>
<td>7 (25.0%)</td>
<td>3 (8.8%)</td>
<td>7 (24.1%)</td>
</tr>
<tr>
<td>Lack of Time</td>
<td>6 (11.3%)</td>
<td>2 (8.0%)</td>
<td>4 (14.3%)</td>
<td>3 (8.8%)</td>
<td>3 (10.3%)</td>
</tr>
<tr>
<td>Personal Connection</td>
<td>6 (11.3%)</td>
<td>5 (20.0%)</td>
<td>1 (3.6%)</td>
<td>2 (5.9%)</td>
<td>4 (13.8%)</td>
</tr>
</tbody>
</table>
Army is not Mentoring Culture
Do not Want One

| Army is not Mentoring Culture | 4 (7.5%) | 0 (0.0%) | 4 (14.3%) | 3 (8.8%) | 2 (6.9%) |
| Do not Want One | 3 (5.7%) | 0 (0.0%) | 3 (10.7%) | 0 (0.0%) | 3 (10.3%) |

Access to and Benefits of Mentors

In regards to the first qualitative question, of the sample, 54.7% (N=93) indicated they currently had a mentor and 45.3% (N=77) said they did not have a mentor. 65.9% (N=112) of the participants indicated that their mentor was of the same gender. Of the women who responded, 36.6% said they had a mentor of the same gender. Finally, 44.7% of participants indicated that having a mentor of the same gender was important to them, including 39.0% of the women in the sample. To answer the second qualitative question date from the survey was used that asked Soldiers using a 7-point Likert-like scale to indicate the ease with which a mentor was acquired as well as a list of ways people could find their mentor. The scale was anchored at 1 equaling “very easy” to find a mentor and 7 meaning it was “very difficult” to find a mentor. The majority of people responded that it was “neither easy nor difficult”, response 4 on the Likert-like scale (M=4.58, SD = 2.37). The most frequently cited method of accessing a mentor was finding one on his or her own, reported by 57.1% of the sample. Please see Table 5 for further descriptive information.
Table 5
*Mentor Information and Method Acquired Mentor*

<table>
<thead>
<tr>
<th>Mentor Information</th>
<th>Total Sample</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a mentor</td>
<td>93 (54.7%)</td>
<td>23 (56.1%)</td>
<td>70 (54.3%)</td>
</tr>
<tr>
<td>Do not Have a Mentor</td>
<td>77 (45.3%)</td>
<td>18 (43.9%)</td>
<td>59 (45.7%)</td>
</tr>
<tr>
<td>Have Same Gender Mentor</td>
<td>112 (65.9%)</td>
<td>15 (36.6%)</td>
<td>97 (75.2%)</td>
</tr>
<tr>
<td>Have Different Gender Mentor</td>
<td>25 (14.7%)</td>
<td>21 (51.2%)</td>
<td>4 (3.1%)</td>
</tr>
<tr>
<td>Believe Same Gender Important in Mentor</td>
<td>76 (44.7%)</td>
<td>16 (39.0%)</td>
<td>60 (46.5%)</td>
</tr>
<tr>
<td>Believe Gender does not Matter in Mentor</td>
<td>94 (55.3%)</td>
<td>25 (61.0%)</td>
<td>69 (53.5%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How Acquired Mentor</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Found on own</td>
<td>97 (57.1%)</td>
<td>24 (58.5%)</td>
<td>73 (56.6%)</td>
</tr>
<tr>
<td>Assigned to them</td>
<td>15 (8.8%)</td>
<td>4 (9.8%)</td>
<td>11 (8.5%)</td>
</tr>
<tr>
<td>Recommended by another person</td>
<td>2 (1.2%)</td>
<td>1 (2.4%)</td>
<td>1 (0.8%)</td>
</tr>
<tr>
<td>Other</td>
<td>18 (10.6%)</td>
<td>4 (9.8%)</td>
<td>14 (10.9%)</td>
</tr>
</tbody>
</table>

The participants reported several benefits of having a mentor, which answered the third qualitative question. Through the online survey participants were able to pick items from a list of perceived benefits that were applicable for them. From this list, 84.1% of participants endorsed mentors who “teach ins and outs of the Army” and 83.5% of the participants endorsed a mentor as being a “good role model.” Respondents were also given the opportunity to indicate how important they believed having a mentor was to
their career. The item measured responses using a 7 point Likert-like scale. The most
frequently endorsed response was that mentors were “Important”, 2 on the Likert-like
scale, to the mentee’s career with 28.8% of the sample endorsing this item ($M= 3.53$, $SD= 
2.43$). See Table 6 for further information.

Table 6
Benefits of Having a Mentor

<table>
<thead>
<tr>
<th>Benefits to Having a Mentor</th>
<th>Total Sample</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N$ (%)</td>
<td>$N$ (%)</td>
<td>$N$ (%)</td>
</tr>
<tr>
<td>Teaches ins and outs of the army</td>
<td>143 (84.1%)</td>
<td>32 (78.0%)</td>
<td>111 (86.0%)</td>
</tr>
<tr>
<td>Good role model</td>
<td>142 (83.5%)</td>
<td>36 (87.8%)</td>
<td>106 (82.2%)</td>
</tr>
<tr>
<td>Supportive during challenging work environment</td>
<td>120 (70.6%)</td>
<td>30 (73.2%)</td>
<td>90 (69.8%)</td>
</tr>
<tr>
<td>Provides growth opportunities</td>
<td>110 (64.7%)</td>
<td>27 (65.9%)</td>
<td>83 (64.3%)</td>
</tr>
<tr>
<td>Helps make you more viable for upcoming jobs</td>
<td>86 (50.6%)</td>
<td>18 (43.9%)</td>
<td>68 (52.7%)</td>
</tr>
<tr>
<td>Teaches changes in army tech, structure, and strategy</td>
<td>79 (46.5%)</td>
<td>14 (34.1%)</td>
<td>65 (50.4%)</td>
</tr>
<tr>
<td>Makes you aware of upcoming job opening</td>
<td>75 (44.1%)</td>
<td>19 (46.3%)</td>
<td>56 (43.3%)</td>
</tr>
<tr>
<td>Helps give you emotional support</td>
<td>66 (38.8%)</td>
<td>19 (46.3%)</td>
<td>47 (36.4%)</td>
</tr>
<tr>
<td>Helps overcome gender related obstacles</td>
<td>32 (18.8%)</td>
<td>13 (31.7%)</td>
<td>19 (14.7%)</td>
</tr>
<tr>
<td>Supports you through time of sexual or racial harassment</td>
<td>24 (14.1%)</td>
<td>10 (24.4%)</td>
<td>14 (10.9%)</td>
</tr>
<tr>
<td>Helps you navigate a male-dominated work force</td>
<td>21 (12.4%)</td>
<td>12 (29.3%)</td>
<td>9 (7.0%)</td>
</tr>
</tbody>
</table>

Respondents also had the opportunity to write in their own benefits of having a
mentor. These responses were analyzed and grouped according to similar themes. Out of
the entire sample, 30 Soldiers wrote in an additional benefit to the mentor relationship
that was not included in the given responses. After reading and analyzing responses for
consistent themes, it was discovered that there was one overwhelming theme for the
responses, which was the benefit of helping one achieve or plan career-long goals. For
example, one response was, “The mentor should share his/her experiences and provide
scenarios to prepare the Soldier for what is to come in his/her career.” Other examples
included, “helps chart a career path...”; “provides a different perspective on military
options whether it be assignments, working with different leadership types, etc....”; and
“discusses long-term professional goals.”

Participants were asked if they had the same gender mentor and if that was
important to them. The qualitative responses fell into three categories: yes gender matters
when picking a mentor, no gender does not matter, and hesitancy to define if gender
matters. Within each category responses were reread and analyzed for pervasive
subthemes. Please see Table 7 for a list of all themes and subthemes.

Some of the subthemes will be highlighted here. In regards to the first category,
“Gender not Important,” one subtheme reflected the majority of responses, which was a
“Desire for Gender Neutrality.” One quote was, “the Army Officer system is based on
merit and past job performance. Those things are what needs to be mentored.”
However, other Soldiers’ responses were very strong in their desire for a same gender mentor creating the two most frequently endorsed subthemes under “Gender Matters,” which were “Ease and Comfort” and “Shared Experiences.” One such response in “Shared Experiences” was, “although we try not to admit it, gender differences exist in all aspect of our life. We see and interpret things differently.” A response under the subtheme of “Ease and Comfort” was, “because that person would, I feel, be able to better relate to me if they were the same gender.” Under the final category of “Hesitancy” people often stated a desire for mentors of both genders or indicated they thought that having a mentor of the same gender would be beneficial, but was not the only factor when finding a mentor. For example, “I think that having a mentor is important regardless of gender, but in some situations, a mentor of the same gender will in some ways have a more similar experience to yours. Of more importance is having a mentor in the same branch or MOS.”
Table 7  
*Themes on Importance of Mentors' Gender*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Subthemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender of Mentor Not Important</td>
<td>Professional needs only</td>
</tr>
<tr>
<td></td>
<td>Desire for Gender-Neutrality</td>
</tr>
<tr>
<td></td>
<td>Say not possible to pick, so does not matter</td>
</tr>
<tr>
<td></td>
<td>Male only branch</td>
</tr>
<tr>
<td></td>
<td>Limited options</td>
</tr>
<tr>
<td>Desire Similar Gender</td>
<td>Ease and comfort</td>
</tr>
<tr>
<td></td>
<td>Shared experiences</td>
</tr>
<tr>
<td></td>
<td>Help with gender obstacles in Army/Sexism</td>
</tr>
<tr>
<td>Hesitancy</td>
<td></td>
</tr>
</tbody>
</table>

Finally, the responses regarding the importance of gender in a mentor relationship were also split into male and female respondents. The three most common themes that the female group endorsed when finding a mentor were the mentor’s professional role, a desire for a gender-neutral approach to mentor relationships, and finding a mentor who would help navigate gender obstacles within the Army. For males there were four commonly reported themes. The most commonly reported response was that gender did
not matter, and the responses fell under the theme of the “Desire for Gender-Neutrality”. Some examples were, “You need diversity”; “We are all green in the Army”; and “the qualities of a mentor transcend gender.” The second most reported theme, was that gender did matter and those responses fell under “Ease and Comfort” with the subtheme of “Shared Experiences” falling shortly behind. Those responses included, “sometimes it’s just easier” and “relate better if same gender.” Please see Table 8 for further breakdown of responses.

Table 8
Themes on Mentors’ Gender

<table>
<thead>
<tr>
<th></th>
<th>Total Sample</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Gender Does Not Matter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional needs only</td>
<td>27 (15.9%)</td>
<td>18 (14.0%)</td>
<td>9 (22.0%)</td>
</tr>
<tr>
<td>Desire for Gender-Neutrality</td>
<td>53 (31.2%)</td>
<td>45 (34.9%)</td>
<td>8 (19.5%)</td>
</tr>
<tr>
<td>Say no Choice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male only branch</td>
<td>10 (5.9%)</td>
<td>10 (7.8%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Limited options</td>
<td>5 (2.9%)</td>
<td>0 (0%)</td>
<td>5 (12.2%)</td>
</tr>
<tr>
<td>Gender Does Matter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease and comfort</td>
<td>23 (13.5%)</td>
<td>21 (16.3%)</td>
<td>2 (4.9%)</td>
</tr>
<tr>
<td>Shared experiences</td>
<td>21 (12.4%)</td>
<td>17 (13.2%)</td>
<td>4 (9.8%)</td>
</tr>
<tr>
<td>Gender Obstacles</td>
<td>17 (10.0%)</td>
<td>8 (6.2%)</td>
<td>9 (22.0%)</td>
</tr>
<tr>
<td>Hesitancy</td>
<td>14 (8.2%)</td>
<td>10 (7.8%)</td>
<td>4 (9.8%)</td>
</tr>
</tbody>
</table>
Discussion

Both sets of data, the qualitative as well as the quantitative, will be synthesized in order to facilitate a discussion on the four sets of hypotheses: review how the results compare to past research, discuss limitations and strengths of the study, and discuss areas for future research. To review, hypothesis one, which was formulated to be consistent with the literature, proposed that female Soldiers would have lower levels of cohesion than male Soldiers. The second hypothesis proposed that Soldiers with mentors would report higher levels of cohesion than Soldiers without mentors. The third hypothesis examined the interaction of the two previous hypotheses and stated that women with mentors would have higher levels of cohesion than women without mentors. Finally, the fourth hypothesis was that female Soldiers would report more barriers to accessing a mentor than male Soldiers.

Impact of Gender on Cohesion

This study found no significant difference between the genders in their reported cohesion levels on the CPCQ. Both genders reported moderately high levels of cohesion. However, this finding appears contrary to the previously cited literature. Authors in previously mentioned studies discussed how female Soldiers have a unique experience in the Army for a variety of reasons. This unique experience would lead one to expect differences in cohesion levels. For example, women make up a small percentage of Soldiers in today’s Army. This minority status can lead to the phenomenon of tokenism, being constantly made aware of the differences between the minority and the majority population, and the following power differential. The differential status in
power can lead to feeling that these innate or social differences of the minority group, along with the lack of power, mean the group is not acceptable or equal in the eyes of the majority population. Naturally, this experience makes those in the minority feel less than worthy and not close or engaged to their employee counterparts. Oftentimes, minorities take on internalized prejudice or, in this case, sexism, and begin to openly disparage any characteristics that belong to or are identified with the minority culture. A frequently seen example of internalized sexism would be female Soldiers making sexist jokes and taking on masculine qualities while attempting to shed any female identifying qualities.

As previously noted, a study at the Air Force Academy found that stereotypical male traits were placed in high priority amongst the cadets of both genders. Even the female Air Force cadets placed masculine traits as highly desired traits for leaders to possess, more than female traits. This internalized sexism or open shunning of more feminine traits, while promoting more masculine traits, could lead to isolation for females or feelings of worthlessness; isolation is the definition of low cohesion. However, it appears that in this particular study, the female sample does not feel isolated and are not reporting low levels of cohesion.

Another theory that suggested there would be differing cohesion levels deals with the recent trends in sexual assault reports. The number of sexual assaults reported by female Soldiers has exponentially increased over the past three years (Department of Defense, 2013). This appears to indicate an unsafe working environment for women. Therefore, it would be consistent to assume low levels of cohesion for the threatened population. Again, this study’s conclusions do not appear to be consistent with the
assumptions made in the current literature.

So what accounts for the similar levels in cohesion among the genders? One hypothesis is an alternate potential explanation for research indicating an unsafe and non-cohesive environment for women, namely the emerging information about sexual assault. The ever-increasing statistics on sexual assault could perhaps (hopefully) be measuring women's feelings of empowerment and ability to finally report sexual assault. It has been postulated that the rise of sexual assaults might not be the rise of actual assaults, but the increase of victims reporting the assaults. These statistics could indicate a safer than previous environment that is finally promoting victims’ rights and could be consistent with better cohesion for women. Granted, this is a very optimistic outlook and the assault statistics do cause great concern. It is noteworthy to add that the numbers of reported assaults are increasing for males and females alike. Currently, there is no data to confirm either of the two theories on sexual assault in the military. At this point, future studies are needed and researchers can only make hypotheses about the cause of the increasing number of reports.

Another possible reason for the conflict between this study's data and the current research is the apparent oversampling of Caucasian, female officers. This fraction of women in the Army appears to have more privilege than other minorities or enlisted personnel and appears to be most similar to the dominant population of Caucasian, male officers. The slightly skewed sample and the shared privilege between these women and white men are a possible reason for similar cohesion scores among the genders in this study. These women have more power and fewer obstacles to face than other minorities.
They also may feel less isolation due to the overwhelming numbers of Caucasians in the military. Finally, officers hold an important amount of power in the military. The majority of women sampled in this study were officers. This power contributes to one's sense of autonomy and also one's self esteem. It may be easier for people to find friends and feel connected to others when they have greater feelings of self-worth. This is possibly one of the reasons for the non-significant findings.

Finally, it is possible that the culture of the military has changed significantly since cohesion and gender differences were last explored and the culture is now more appreciative of minority viewpoints, including females. For example, recently, the Former Secretary of Defense Leon Panetta opened up all positions in the Army to every gender. Women are now allowed to serve in front line positions, attend Ranger school, and be trained for combat. This is a major indication that the overall mood towards women in the Army is changing. Another important indication of change and growth in the military culture is the repeal of Don't Ask Don't Tell, allowing gay and lesbian service members to serve openly. When researchers polled Soldiers anonymously on their views of serving with homosexual Soldiers, the overwhelming response was support for LGBT service members. These are all positive signs that military leaders are learning to be more open and accepting of minority viewpoints.

Also, the most recent study that examined the differences between males and females took place in the late 1990's, almost 20 years previous to this study. The mentality of Soldiers appears to be changing and these results could be consistent with this change.
Impact of Mentors on Cohesion

Continuing on to the second hypothesis, the results of this study appear to be consistent with the literature: mentor relationships do have a significant effect on reported cohesion levels in the Army. The results of this study indicate that Soldiers with a mentor reported significantly higher levels of cohesion than did those Soldiers without a mentor. Previous research indicated that mentors helped their mentees by teaching them the ins and outs of an organization to include its unwritten rules of office politics and social norms. Mentors can also help with organization-specific knowledge, for example, specific technology uses, organizational structure, and organizational strategy. Finally, as previously discussed, mentors are extremely beneficial to those of minority status, because the relationship allows them access to the decision makers of an organization. This connection further helps the mentee network and learn of upcoming job opportunities. The benefits reported in the literature are consistent with the benefits Soldiers in this study reported. This sample endorsed that mentors most help with learning the “ins and outs of the Army,” providing a “good role model,” and are “supportive during a challenging work environment.” In addition, Soldiers were able to write in their most perceived benefit from having a mentor not already included on the survey list. The number one reported write-in benefit was “help in establishing and attaining career long goals.” Mentors have the benefit of experience and can help younger Soldiers map out their career plans and help them attain these goals. Soldiers noted that they often were able to meet with their mentors and plan out jobs or trainings that would allow them to attain their desired careers. Mentors had the experience and
understanding to help Soldiers make complicated decisions that would allow them to attain their career goals. Mentors in the Army have more years working in the bureaucratic system and navigating the sometimes daunting and nebulous government system. This knowledge can be used to help navigate the career paths of younger Soldiers. Mentors can take into account a soldier's personal goals, family life, and other extraneous factors that a boss would not necessarily be able to think about or accommodate. They can help Soldiers find assignments that would meet all of their career, personal, and family needs. This relationship taps into both social support and career support. All these benefits appear to be strongly associated with a person's connectivity to their work environment and, therefore, appear to speak to why Soldiers with mentors reported having higher levels of cohesion in this study.

**Interaction Between Gender and Mentorship on Cohesion**

As discussed in the previous sections, this study found no significant difference between male and female Soldiers on their scores measuring cohesion. The second hypothesis, however, of Soldiers with a mentor reporting higher levels of cohesion than those without was found to be significant. The third hypothesis focused on the interaction between the variables of gender and mentorship. It was hypothesized that women who have a mentor would report higher levels of cohesion on the CPCQ than women without a mentor. However, this hypothesis was not found to be significant, which again appears to be inconsistent with the literature and also with other findings in this study. It is worthwhile to note that the cohesion data did trend in the direction of the hypothesis, but not to the degree of statistical significance.
Other data from this study may offer some insight as to why there was no effect of mentorship on cohesion for women. In examining other aspects of the data, women reported at higher percentages than men that a mentor was not important to their career. Only 19.5% of the women in the survey, compared to 31.8% of men, reported that having a mentor was important to their career. A further 17.1% of women reported feeling neutral when asked if a mentor was important to their career. It is possible that having a mentor is not a value that woman hold in the Army, or that they may not know to value something they have never experienced. When looking at the analysis of qualitative data, several of the free responses that women wrote in this study were consistent with this finding. One woman stated, “Most females in the army are very involved with their own business that not many mentor others.” This participant, as well as the lower percentages of women who report the importance of a mentor, indicate that other values may take precedence for women in the Army, such as work/life balance, financial issues, academics, and extended family needs. Other respondents stated, “potential mentors too busy to assist due to their own demands on time” and “everyone is busy”. Therefore, the factor of having a mentor may have little influence or effect on cohesion levels. However, it would be beneficial to see the impact a mentor has on females’ reported cohesion levels with a more equably distributed sample of officers and enlisted personnel.

Another theory about the possible differences women and men may have when thinking about career mentors came from the qualitative data in this study. One woman stated, “I have to find someone I can relate to and that I feel can understand me. Also, I have to respect that person and think highly of them and their professional performance
as well as family life balance.” It is hypothesized that women may have high and complicated standards for their mentors. This leads one to question how accessible mentors are in the military and how accessible mentors are for females in the military. Barriers and limitations for mentors will be further discussed in the next section, but it is important to note that a limited supply of military mentors may lead female Soldiers to feel frustrated and eventually give up on having a mentor. This mentality may lead people to also place low importance on having a mentor in general. Women may look elsewhere to get their social and career needs met. This theory will be further discussed in the next section.

Another, final theory about why there were no differences on cohesion for women with a mentor versus women without a mentor in this study is about the type of woman serving in the Army. Since there is still such a small population of women in the Armed Services, the military branches tend to attract women who are self-starters and pioneers. This character prototype may be less likely to seek a mentor and to instead take their career responsibilities solely on their own shoulders. All these theories would need further research, though, before any real conclusions could be made.

**Barriers to Mentors**

Finally, the fourth hypothesis posited that female Soldiers were likely to have more barriers to a mentor than male Soldiers would. However, there was no significant difference found between the sexes on number of reported barriers. There are several possible explanations for this finding. The first explanation is that the sample was not enriched enough to reflect all women in the Army. This sample again appears most
similar to Caucasian, men in the Army who have more societal power. This sample of women with their higher rank and education may face fewer barriers than enlisted personnel or women of color. It is important to find a more appropriate sample to assess current barriers faced by women and men in the Army.

As previously stated though, these results may accurately reflect a cultural shift in the Army. The military is undergoing extensive changes in its societal make-up, which may cause more awareness and open mindedness, leading to more equality between the sexes.

A further examination into items endorsed will also help assess current trends. Through the survey women and men were able to endorse possible barriers to mentors from a given list, and top responses were generated. Female Soldiers' top three reported barriers were “other barriers” at 41.5% of the responses, a “lack of formal mentor programs” at 34.1% of the responses, and “limited options for female mentors” at 24.4% of the responses. 26.8% of female Soldiers' responses indicated having “no identified barriers” to accessing a mentor. This is similar to the 27.9% of the male responses who also indicated that there were “no reported barriers” to accessing a mentor. In regards to the male respondents, their top three identified barriers were a “lack of a formal mentor programs” at 35.7%, “not enough mentors available” at 27.1% of the responses, and “other barriers” at 24.8% of the responses. When comparing the responses of the two genders it is important to note that the top two responses appear to be very different. Female responses indicated “other barriers” as the biggest problem facing women. The number one barrier endorsed by male participants was the “lack of a formal mentor
program”. There appears to be a different response style for the genders in this sample, but examination of the qualitative data will help elucidate this information.

In examining the free response data, patterns were first established, and pervasive themes were determined. Five different themes emerged from the qualitative data: “an overall lack of time on the part of possible mentors, limited people who desire to be a mentor, the lack of quality mentors, the need for a personal connection, the Army's culture not fostering mentoring relationships, and people not wanting a mentor”. The top theme for women is “the lack of quality mentors” at 56% of the responses. This, too, was the most endorsed theme for men, falling at 32.1% of the responses. Some examples of Soldiers' statements included, “Good people in general are sometimes hard to find”; “very few people that I would actually want to emulate”; and, the quality of mentors is erratic...” Both gender responses appeared to be consistent for the most endorsed theme.

To summarize the data, it appears that women and men do experience similar barriers to accessing mentors, but no significant differences were found in the amount of barriers reported for both sexes. Both men and women endorsed that the lack of quality mentors was a large impediment for them. However, it appears that women endorse this barrier at a higher rate than males do. The topic of barriers to mentors in the Army is an important area for continued research, especially since existing research on the topic is so limited. There may be some comparison to the research on barriers for minorities when attempting to access a mentor in the private sector. It has traditionally been harder for a person of minority status to access mentors of power because the mentors are, again, traditionally mostly Caucasian men. This is one hypothesis why women appear to be
claiming that they are having a hard time accessing quality mentors at higher rates than men. This data also begs the question about the type of mentors and leaders who are in the Army and what is making them undesirable as mentors. Are the issues of quality mentors dealing with issues of sexism or does this problem of quality leaders come from other ethical issues? Another viewpoint could be that the measure was not sensitive enough to the population to identify issues and track if they are prominent throughout the Army or just a sampling of an outlier population. A final important question to be posed by future researchers is whether or not a formal mentor program might be the answer to this problem or would people choose not to participate in such a program due to the perceived lack of quality mentors available?

In light of the above findings about men and women expressing difficulty accessing quality mentors, further examination of the qualitative data was done. It was noted that 56% of female respondents indicated having problems accessing a mentor, which is more than the males reported. What might make it more difficult for women? Earlier in the survey, 39% of the female participants indicated that they wanted a mentor of the same gender. Soldiers had an opportunity to include reasons why the gender of a mentor was or was not important. For those who felt gender match was important, the subthemes were, “shared experiences,” “ease and comfort,” and “help navigating gender obstacles.” Women sought out a mentor of the same gender because they thought their mentor could “relate better” if she was female. Another participant stated, “although we try not to admit it, gender differences exist in all aspect of our life. We see and interpret things differently.” This could indicate a problem for female Soldiers’ ability to access a
mentor because women only make up 14% of the Armed Services. 43.9% of the female participants indicated that it was “somewhat difficult” to “extremely difficult” to access a mentor, whereas only 26.8% reported that it was “somewhat easy” to “very easy” gaining access to a mentor. Looking at the methods Soldiers reported using to access mentors, 58.8% of women reported they found their mentor on their own. Taken together, these findings appear to support the hypothesis that women desire same gender mentors, but cannot access them due to the limited population.

However, when directly asked if limited female leaders is a barrier, only 24.4% of women indicated that this was true. Several factors could account here for the low number. A small percentage of people taking the survey responded to this question and it was placed near the end of the survey. It appears that the sample may have grown weary towards the end of the assessment. However, there could also be other reasons why there are not “quality” mentors that have nothing to do with gender and gender issues. Again, barriers for mentors in the Army would be a very worthwhile topic for future research.

**Strengths of the Study**

Two strengths of the current study in particular are worth mentioning. Although it may have skewed some study results as previously mentioned, the oversampling of officers offered an important new contribution to the topic of cohesion. Previous studies on cohesion in the Army have used samples comprised of enlisted personnel. While this is understandable due to the higher proportions of enlisted Soldiers than officers, this tends to leave officers out of research, especially on cohesion. Most cohesion measures, including the CPCQ used in this study, are written to measure cohesion levels at the
platoon or company level, which has a low percentage of officer membership. Therefore, this study was extremely helpful in highlighting how officers feel towards their peers, a previously undocumented area. The second strength of this study was the qualitative methodology, which allowed the researcher to assess areas that were previously unexplored. Asking Soldiers about barriers to mentors and what characteristics they are looking for in a mentor is new data. Future researchers can build on this data in follow up studies.

**Limitations and Proposed Future Research**

Along with strengths of the study there are three noteworthy limitations to discuss. The first limitation speaks to the measures used to assess barriers to accessing a mentor. In order to properly study gender differences in reported barriers to accessing a mentor, the questions could have been phrased and coded differently in order to properly track individuals' responses. If the researcher had been able to track individual participants' responses, a means comparison test could have been used to arrive at a better understanding of hypothesized differences among the genders. It also would have been helpful to monitor individuals to assess whether any outliers were skewing the data. The second noteworthy limitation is the cohesion measure, the CPCQ. Much of the previous cohesion research used the CPCQ or one of its several variants of the CPCQ, one reason this measure was selected for use in the current study. However, as previously noted, this measure was written with enlisted personnel in mind. Career paths and trajectories, including interpersonal relationships, vary greatly between officers and enlisted. They also vary greatly between newly enlisted and Commissioned Officers and enlisted
personnel with years of experience. Questions about working with one’s peers would look differently based on one’s position. The questions on the CPCQ were general enough that they could be applied to anyone, but considering the heavy sampling of officers it might have been beneficial to use a different measure to ensure proper assessment of the cohesion construct. The third and final weakness, although also a strength, was the oversampling of officers. In order to have a better understanding of women's issues in the Army, it would have been best to have a sample that appears more representative of the entire population. There are some hypotheses that the oversampling of female officers led to skewing of the data, because Caucasian female officers appear the most similar in terms of power to the Caucasian male officers. Further research could be conducted to see how cohesion levels appear when a more enriched data sample is used.

Other areas for future research should see if this study's results are generalizable to other military services. It was previously noted that the study could have improved with a more enriched sample, a better variety of rank and ethnicity. This would allow the results to be better generalized to the Army has a whole. However, it would also be important to assess the climate of other branches of the Army. All branches are undergoing a current programmatic shift that allows women to be in combat positions, which they have never had access to in the past. It would be important to assess how these women feel in regards to cohesion as they move into new roles and assess for possible cultural shifts. Again, future studies should have a rich data sample that would include all branches within the specific services and all levels of rank.
One final area for future research includes how the Army can increase access to mentors. Two frequently endorsed barriers to accessing mentors were the lack of formal mentor programs and the lack of available mentors. Further research should assess how to improve accessibility to mentors. Questions should be asked such as, is the environment conducive to mentor-protégé relationships? Does the work schedule allow for time and access to higher ranking Soldiers? Researchers need to look into what prevents the relationships from starting if the time is available. What is causing the problem that was reported of lack of quality mentors available? Where are the quality problems coming from? Does there need to be education and training that would make people more desirable for mentorship? This would all be important as it has been shown that mentoring relationships can be a way to foster cohesion, an important protective factor for Soldiers.
Conclusion

In conclusion, the data from this study indicates that Soldiers in this sample, females and males, felt relatively close with their peers. Also, having a mentor appeared to increase one's feelings of cohesion. Having a mentor was reported by the sample to help navigate the vast Army system, to give a positive role model to follow, to offer support during challenging work environments, and to help in planning out one's military career path. However, there do appear to be some barriers to accessing mentors and some possible gender differences within these barriers. Women report having problems accessing “quality” mentors at a higher rate than men. They also appear to have more difficulty accessing mentors than their male counterparts report. Some of this could be reflective of the desire for having a same sex gender mentor and not being able to find one. However, further studies need to be conducted allowing researchers to find possible gender differences in barriers to mentors and reasons for any differences. It is also recommended that future studies have a more balanced sample of officers and enlisted as well as oversampling female Soldiers to increase the likelihood of valid and generalizable results. Nevertheless, this study highlights potential exciting cultural shifts within the Army, where the documented gender differences in cohesion may be vanishing.
References


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Appendix A

Demographic and Mentor Questions

What is your:

1. Gender: (Male/Female)

2. Age: (18 and above)

3. Ethnicity: (African American, Caucasian, Latino/Hispanic, Asian American/Asian Pacific Islander, American Indian/Alaska Native, Bi-racial/Multi-racial, Other)

4. What branch of the Army do you serve in? (Infantry, Engineering, Armored, Military Intelligence, Military Police, Medical Services)

5. What is your rank? (W1, W2, W3, W4, W5, O1, O2, O3, O4, O5, O6, O7, O8, O9, O10, E1, E2, E3, E4, E5, E6, E7, E8, E9)

Mentoring Questions

A mentoring relationship is defined as developmental relationship between an individual and a more senior professional; the more senior professional provides career (exposure and upper-level visibility, direct forms of coaching and sponsorship) and social support (role model, friend, and counselor) to the protégé.

1. Do you currently have a mentor in the Army? (y/n)

2. If not currently, have you ever had a mentor in the Army? (y/n)

3. Is (or was) your mentor of the same gender? (y/n/don’t have one)

4. Is (or was) your mentor of the same ethnicity? (y/n/don’t have one)

5. Do you feel having a mentor of the same gender is or would be important? (y/n)
   Why or why not? (free text)

6. Do you feel having a mentor of the same ethnicity or race is or would be important? (y/n)
   Why or why not? (free text)

7. How did you acquire your mentor? (assigned to me/ found on my own/ recommended by other person/ other with an option to provide text / don’t have one)

8. How easy was it to find a mentor? (1-7; don’t have one)
9. How important has having a mentor been to your career growth (such as getting promoted, accessing key training opportunities, etc)? (1-7; don’t have one)

10. If you don’t have a mentor, how easy do you think it would be to access one? (1-7; have one)

10. What have been or do you imagine would be the benefits of having a mentor? Check all that apply.
   - Teaches “ins and outs” of Army organization and unwritten rules of Army politics
   - Made you aware of upcoming job openings
   - Helped make you more viable candidate for upcoming promotions
   - Teaches changes in the Army technology, structure, and strategy
   - Helps you overcome gender related obstacles
   - Provides growth opportunities
   - Supportive during challenging work environment
   - Support you through time of sexual or racial harassment
   - Helps you navigate a male-dominated work force
   - Good role model
   - Helps give you emotional support
   - Other (please specify)

11. What have been or would likely be the largest barriers to finding a mentor? Check all that apply.
   - (Same listing type response options as above)
   - Not enough mentors available
   - Limited options for female mentors
   - Limited options for mentors of same ethnicity
   - Lack of formal mentorship programs
   - No identified barriers
   - Other please specify: