May 2020

Understanding Female Veterans' Perceived Social Support as Influenced by Higher Ground Military Program

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UNDERSTANDING FEMALE VETERANS' PERCEIVED SOCIAL SUPPORT AS INFLUENCED BY HIGHER GROUND MILITARY PROGRAM

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Parks, Recreation, and Tourism Management — Recreational Therapy

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by
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May 2020

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ABSTRACT

Female servicemembers are quickly growing as the largest minority within the military, yet female veterans are not often represented widely in the literature (Hawkins & Crowe, 2018a, 2018b; Lundberg et al., 2016). Numerous studies have indicated that female-specific needs are not being met by healthcare agencies and services need to change to fill that void (Hawkins & Crowe, 2018a, 2018b). As such, researchers should conduct studies in order to help develop best-practices regarding the provision of services for this population. This research project was developed to help fill the gap in in the literature regarding the various lived experiences of female veterans with recreational therapy programming post-deployment. Additionally, there is a lack of readily available research indicating how practitioners can facilitate social support for female veterans, another purpose for this study. This study is part of a larger multi methods study with a combination of semi-structured interviews and a survey provided to female veterans who are past participants of Higher Ground's military program (HGMP) in order to investigate how participating in HGMP impacted their perceived social support. This paper will report only the quantitative portion regarding how participating in Higher Ground's military program impacts the perception of social support that female veterans experience post-deployment. The results indicate that participants experienced an increase in post-deployment support and improvement in family experiences. While it was outside the scope of this project to investigate exactly which aspects of programming potentially impacted the perception of social support, it will explore programmatic aspects so practitioners may consider adding them. Further research should look further into these programmatic aspects so practitioners have a guide for facilitating social support.

ACKNOWLEDGMENTS

I would like to thank the staff from Higher Ground for their time and dedication to helping this project be successful. Kirstin and Rich spent a significant amount of time reading through our survey and other documents to ensure that it was as good as possible for the participants. Kirstin also gave us helpful feedback and suggestions for engaging with our participants. Throughout, they kept their participants' best interests at heart and ensured that they were treated with respect through this entire process. They went above and beyond what we asked of them and were gracious and patient as we learned this research process.

I would like to acknowledge and thank my chair, Dr. Brent Hawkins, as well as committee members Dr. Brandi Crowe and Dr. Jasmine Townsend for their time and expertise in reviewing the many many (many) drafts and iterations of this thesis. I would like to thank Dr. Matthew Brownlee, and Dr. Stephen Lewis for their support along the way. Big thank you to Dr. Lauren Duffy for always believing in me and helping to instill my passion for ethical research. I would like to thank each individual participant who completed this survey for sharing their vulnerability and experiences. This thesis isn't going to change the world, but I wanted to help give voice to this population and do my part to help recreational therapists understand how programs impact the social support that veterans experience. Participating in this study had no real tangible external incentives (e.g., gift cards), so everyone who participated did so to help themselves or to help other female veterans, for which I am incredibly grateful.

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CHAPTER ONE

INTRODUCTION

Women in the Military

Historically, women were informally involved in the United States military as early as the American Revolution. Beginning in the early 1900s, the military enabled women to formally work as nurses but they still did not receive equal benefits or rank acknowledgement like their male counterparts received (Holm, 1982; Thomas, 1978).

Women began serving as military police, fighter pilots, and other warship-based roles starting in 1990 during the Gulf War (Carney et al., 2003). After the Gulf War, women could serve in 90% of military roles (Donegan, 1996). Beginning in 1994, the Direct Combat Exclusion Rule was approved, dictating that women were banned from serving units in which their primary task was related to direct combat (Vergun, 2013). Due to the increase in guerilla fighting in wars such as Operation Iraqi Freedom and Operation Enduring Freedom, 2.4% and 2.1%, respectively, of the U.S. soldiers killed during these wars were females despite the Direct Combat Exclusion Rule (Street, Vogt, & Dutra, 2009). Beginning in 2013, female service members began filling a wide variety of military roles that they were previously banned from as the Direct Combat Exclusion Rule was formally rescinded. Over the next two years, women could fill any military occupation (Swick & Moore, 2018). As of 2018, around 16.3 % of active duty U.S. service members identify as female (Defense Manpower Data Center, 2018).

Female service members tend to face numerous challenges throughout their tenure in the military, including misperceptions of women in the military on the part of both

male counterparts in the military and the general public (Arnhart et al., 2013; Service Women's Action Network, 2017). Despite the aforementioned rescinded Direct Combat Exclusion Rule, many people often believe that women are protected during military service and experience safe deployments even though women are integrated into combat-related positions like male service members. This misperception of women in the military often results in the undervaluing and misunderstanding of female service members, which can cause the female experience both during service and post-deployment to differ greatly when compared to their male counterparts (Hawkins & Crowe, 2018a, 2018b; Koblinsky, Schroeder, & Leslie, 2016; Lundberg et al., 2016; Service Women's Action Network, 2017).

Although their numbers are increasing, female service members are still the minority among military personnel, which can result in perceived alienation and misunderstandings within their units during service. Families and friends often have developed misperceptions of their experiences and have mismatched expectations of how their female service member should function upon returning home (i.e., expect high levels of gentile femininity with high emotionality, as opposed to the expected strong, tough, limited femininity in military culture). This mismatch of expectations can sometimes increase the difficulty of navigating the return back home because their personal understanding of their abilities and experiences are often incongruent with their supporters' perceptions and expectations (Strong, Crowe, & Bolton, 2018). A lack of social support can come as a result of the incongruent expectations and perceptions which

can negatively impact coping mechanisms, mental health, and ease of transition into civilian life (Strong, Crowe, & Bolton, 2018).

Outdoor Recreation

Outdoor recreation-based programs for veterans can help facilitate therapeutic outcomes including increased perceived freedom, positive emotions, and social support and decreased Post Traumatic Stress Disorder (PTSD) symptoms (Caddick, Smith, & Phoenix, 2014; Lundberg et al., 2011). Outdoor recreation programs may, for example, include nature-based interventions, adaptive sports, and adventure-based or high-intensity recreation. Recreational therapists can intentionally incorporate outdoor recreation programming for treatment in order to facilitate therapeutic outcomes (Lundberg et al., 2011). Individuals facilitating outdoor recreational activities can emphasize participants' strengths rather than weaknesses by affirming existing and developing skills which can help participants increase their self-confidence (Hawkins, Townsend, & Garst, 2016).

Although recreational therapists have used outdoor recreation with veterans, few studies exist in the literature focusing on implementing outdoor recreation for female veterans. This study was conducted through collaboration with Higher Ground, an organization that facilitates female-only and mixed gender programs and interventions for veterans in outdoor settings in various locations across the country.

Higher Ground

Higher Ground (HG), a non-profit organization, offers a wide variety of outdoor recreation programming for individuals with a variety of abilities. This programming can

be split into two broad categories: military-specific programming for veterans, service members, and their supporters (HGMP), and general adaptive recreation programming for individuals with physical and intellectual and developmental disabilities. HG strives to "…use recreation, therapy, and continuing support to give people of all abilities a better life [and to]... bridge the gap between disability and belonging" (Higher Ground, n.d., p. 1). HG offers programming throughout the nation and is located in Sun Valley, Idaho, throughout New York, and Los Angeles, California.

Justification for the Study

The research team structured this study in order to increase the focus on female veterans both in the literature and in recreational therapy more broadly. Numerous studies highlight the lack of research focused on female veterans, and additional research will help healthcare practitioners provide the best possible evidence-based treatment and services (Hawkins & Crowe, 2018a, 2018b; Lundberg et al., 2016). As such, organizations that serve veterans need to address common challenges that female veterans experience. People in the military experience numerous challenges regardless of gender, but women tend to face additional barriers as well, such as increased risk of military sexual trauma (MST), stigmatization, and gender-based harassment (Benedict, 2009; Hawkins & Crowe, 2018b; Lundberg et al., 2016). Female veterans have indicated that the Department of Veterans Health Administration (VHA) has inadequate services to address these aforementioned challenges (Hawkins & Crowe, 2018a, 2018b). In order to help address the inadequate services, HG offers a female-specific program for veterans within their HGMP, one of only a few organizations in the nation to do so. As such, this

study seeks to understand the experience of female veterans who participated in HGMP, specifically in regard to perceived social support.

Research Questions

Overarching Research Question (RQ): How does outdoor recreation programming at HGMP impact community reintegration, military identity, and social support of female veterans who have acquired a combat-related disability?

RQ 1 (For this specific study): To what extent does HGMP cultivate perceived social support for female veterans?

Definition of Terms Used

Outdoor Recreation: Any recreational activities traditionally done in an outdoor setting.

Service Member: Individual currently serving in the military.

Social Support: Support from others (e.g., friends, family) in various forms, typically categorized as emotional, informational, instrumental, or appraisal (Seeman, 2008; Thoits, 2011; Warren, 2005).

Veteran: A military service member who has separated from the military due to retirement or discharge.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Although more female service members are continuously joining the military (Department of Veteran Affairs, 2017; Strong, Crowe, & Bolton, 2018), perceptions of this population and appropriate healthcare have not adequately kept up with the growing demand (Arnhart et al., 2013; Service Women's Action Network, 2017). Additionally, a lack of support and other issues have emerged as a result of unequal treatment and misperceptions in regard to the female population (Arnhart et al., 2013). This literature review will explore three main categories: (1) gender specific programming, (2) social support, and (3) outdoor recreation.

Gender Specific Programming

Female veterans often desire a safe space in which they can have their needs addressed, which may be different from their male counterparts.

Inadequate services

Women are increasingly involved in the military but continue to under-utilize VHA services and tend to participate in veteran or military service organizations less than men (Hawkins & Crowe, 2018a, 2018b; Koblinsky, Schroeder, & Leslie, 2016; Lundberg et al., 2016; Service Women's Action Network, 2017). The tendency for female veterans to engage less may be because these organizations are often not equipped to assist females and are male-dominated (Hawkins & Crowe, 2018a, 2018b; Koblinsky, et al.,

2016; Lundberg et al., 2016; Suris et al., 2007; Service Women's Action Network, 2017). Female veterans have previously communicated their experiences of feeling marginalized by healthcare providers either within the VHA or other organizations (Hawkins & Crowe, 2018a). Sometimes this perceived marginalization may be due to providers' internalization of misperceptions of the population, as well as lack of knowledge related to specific things that predominately affect women (e.g., MST) (Hawkins & Crowe, 2018a). As such, women often feel unwelcome in these aforementioned spaces and desire female-specific spaces for their supportive services and health care (Hawkins & Crowe, 2018a, 2018b; Koblinsky, Schroeder, & Leslie, 2016; Service Women's Action Network, 2017).

A need for female specific spaces

In numerous studies, a range of female service members have voiced their desire for spaces designed for females, including one specific survey by the Service Women's Action Network (2017) in which 97% of respondents indicated a desire for female-specific organizations. These spaces enable female veterans to connect with other female veterans who have shared similar experiences, which can help process those potentially traumatic experiences (Hawkins & Crowe, 2018a). In a similar survey, female veterans typically report higher rates of depression, anxiety, and other mental health conditions, as well as experiences such as MST, sexual harassment, and gender discrimination than males (Service Women's Action Network, 2018). The authors also recommended developing female-specific services, as peer support can be a protective factor against the aforementioned mental health conditions (Koblinsky, Schroeder, & Leslie, 2016; Service

Women's Action Network, 2017). Despite these benefits from female-specific services, benefits remain for participating in mixed-gender programs, such as helping to increase female service members' visibility and strengthening the relationships between female and male service members (Hawkins & Crowe, 2018a). Both types of programs are often intended to help facilitate increased social support and connection between veterans.

Social Support

Social support is a multidimensional concept, and although it has numerous definitions, this thesis will follow the definition that social support is support or assistance from others (e.g., friends, family) in various forms (Seeman, 2008; Thoits, 2011; Warren, 2005). This section will explore various types, sources, and the impact of social support.

There are four types of social support: emotional, informational, instrumental, and appraisal (Thoits, 2011; Warren, 2005). Emotional support refers to when a person is encouraging, reflecting the emotions of love and affection for that person (Thoits, 2011). For a veteran, emotional support could be a partner providing consistent encouragement during a job search post-deployment. Informational support comes in the form of advice, feedback, and guidance in order to assist with problem solving (Thoits, 2011). If a service member was injured during service, informational support could look like a supporter giving them information about local support groups or medical professionals.

Instrumental assistance is much more tangible, in the form of providing help with tasks or solving problems, such as providing either supplies or physical help (Thoits, 2011).

Looking again at a military example, instrumental support could be a friend helping a veteran find and move into a new apartment or allowing them to stay with them during a period of transition. Appraisal support is less prominent in the research but refers to information provided that enables the person to perform a self-assessment during the stressful time in order to help that person see their situation, and their place in that situation, from a more realistic and positive perspective (Heaney & Israel, 2008).

Appraisal support could be seen in a friendship between two veterans conversing about their experiences, particularly if one is further along in the reintegration process and can take on a mentoring role.

Sources of social support

Sources of social support can broadly divide into two groups: primary and secondary (Thoits, 2011). Primary groups are tight-knit with a strong emotional connection and influence on their life, including friends, family, and romantic partners. Secondary groups are less significant and more structurally-bound, such as church groups, coworkers, or volunteer peers in an organization. Similar others (e.g., other veterans) are another part of the secondary group. People from the primary group typically are less likely to have experienced a similar stressor to the person as compared to people in a secondary group. Right after the stressor, the primary group is typically more likely to provide emotional and instrumental assistance, and as time passes, that person often looks to their secondary group for both emotional support and other support in order to cope with stressors (Thoits, 2011). While there are benefits to both primary and secondary group social support, receiving support from similar others within the

secondary group often proves to be more effective. The impact of spending time with people who have experienced similar stressors, similar others serve as a type of social influence, specifically emotional support. Similar others can, in a way, serve as healing role models by demonstrating healthy coping mechanisms, providing hope for a better future further from the trauma, shaping emotional responses, and increasing a feeling of autonomy in life (Thoits, 2011). In the context of the military, sources of social support are sometimes divided differently, into the military peers or family and friends (Smith, Vaughn, Vogt, King, King, & Shiperd, 2011).

Additionally, it is important to distinguish between perceived and received social support. Perceived social support is the culmination of generalized support someone receives over time, whereas received social support refers to actual, specific actions or gestures during a short, specified period of time (Thoits, 2011). In the context of a veteran's life, perceived support could be over a period of six months post-deployment, a veteran feels or perceives they are supported because of various acts of support (e.g., their significant other providing support during the job search, a neighbor making them dinner, a friend letting them stay with them) from everyone in their life that had a cumulative effect. Received support would be the specific instance of, for example, a neighbor making dinner for their family for the first week after returning home.

Interestingly, the perceived social support has a stronger, more consistently positive impact on physical and mental health as compared to the less effective hit or miss impact of received support (Thoits, 2011). There is also a potential difference between subtle and explicit support. Explicit support can make the person feel useless and weak as a result of

having to ask for the support (Thoits, 2011). If a veteran or service member experiences a traumatic brain injury and needs assistance driving to appointments or errands, having a friend willingly volunteers to assist would be subtle, as compared to the veteran having to call their friends and ask for a ride. Perhaps it is more beneficial when someone in distress receives subtle support as compared to if they had to ask for support.

In the context of the military, social support can be studied prior to, during, and after deployment. Unit support comes from people serving alongside or leading service members and aligns with similar others within the secondary source, while general social support comes from the collective population that veterans and service members interact with before deployment (predeployment social support) or after deployment (postdeployment social support) (Han et al., 2014). Higher social support can help ease the CR process whereas lack of social support also makes the CR process much more challenging (Hawkins & Crowe, 2018a; Hawkins, McGuire, Linder, & Britt, 2015a; 2015b;)

Impact of social support

Social support has an abundance of supporting literature defending its link with positive physical and mental health, particularly for people who have experienced traumatic or highly stressful events. Individuals with low social support tend to have higher rates of PTSD than people with high social support who tend to have lower rates of PTSD (Aflakserl, 2010; Guay, Billette, & Marchand, 2006; Dworkin et al., 2017; Lehavot et al., 2018; Ozbay Dimoulas, Morgan, Charney, & Southwick, 2007; Pietrzak, Johnson, Goldstein, Malley, Rivers, & Southwick, 2010). Social support can buffer a

person from stressors and decrease both physiological and psychological effects that a stressor has on a person. The buffering occurs both by mitigating the person's emotional response (e.g., calming them down) and reducing situational demands (e.g., taking on some responsibilities so that person has less to worry about (Kaplan, Cassel, & Core, 1977; Pearson, 1986; Thoits, 2011). Support from peers within the military seems to have a stronger buffering effect (Smith et al., 2011). People may use social support as a coping mechanism, and that perceived social support can also bolster existing coping mechanisms (Mattocks et al., 2012; Strong, Crowe, & Bolton, 2018). There are seven mechanisms underlying social support that have been found to impact overall health and well-being; providing a sense of (a) belonging and (b) purpose, (c) increased autonomy and (d) self-esteem, (e) healthy behavior modeling, (f) positive social comparison, and (g) norm validation (Thoits, 2011). Recreation participation can help facilitate greater social support (Gammonley & Luken, 2001; Lundberg et al., 2016), but even knowing this and the benefits of social support, there is a gap in the literature regarding how exactly it can be facilitated. Because social support has these benefits, investigation into how it can be cultivated for veterans in various settings, especially in outdoor recreation, is warranted.

Outdoor Recreation and Veterans

As mentioned, outdoor recreation can be an effective therapeutic modality when working with veterans. Outdoor recreation can be any outdoor-based recreation including in settings such as adaptive sports, snow sports, adventure recreation, camps, water sports, and community recreation. Outdoor recreation has inherent benefits, but it can

also be used to facilitate therapeutic outcomes such as increased mood stability through strengths-based approaches (Hawkins, Townsend, & Garst, 2016; Lundberg et al., 2016). From a recreational therapy standpoint, Certified Therapeutic Recreational Specialists (CTRS) can use this strengths-based approach to help the participants utilize their strengths in order to achieve individualized goals, a distinct shift from the medical model of focusing on solving the problem (Hawkins, Townsend, & Garst, 2016). The outdoor environment provides the context in which individuals can achieve a very specific goal through the use of their skills. Outdoor recreation can provide an exciting and challenging situation similar to military culture, thus being an effective intervention for veterans (Caddick, Smith, & Phoenix, 2014; Hawkins, Townsend, & Garst, 2016).

Outdoor recreation in group settings can also impact social support. It can be beneficial for veterans, as it provides continuation of the unit-based lifestyle they may have grown accustomed to during service (Mowatt & Bennett, 2011) as well as encouraging therapeutic communication with mutual understanding (Hawkins, Townsend, & Garst, 2016). The camaraderie, or social support, that emerges from this group interaction with similar others can help ease the transition from the formality of group-based military culture (Mowatt & Bennett, 2011) to the often unstructured civilian life, while also providing an additional source of social support. Once they leave the program, they ideally have additional sources of social support.

Summary

The literature broadly acknowledges that female veterans are both understudied and underserved despite being a growing part of the population. Female veterans tend to

experience increase barriers to developing healthy social support. Outdoor recreation can facilitate connections between veterans with shared experiences to bond through overcoming similar barriers. Recreational therapists can use outdoor recreation to help fulfil the needs for services in a way that they desire.

CHAPTER THREE

METHODS

Design of Study

This individual thesis is a part of a larger multi methods study which collected both quantitative data through a Qualtrics online survey as well as follow up phone interviews. This specific thesis will only draw from the demographics and results from two subscales related to postdeployment social support. The quantitative portion followed a retrospective design, meaning rather than the traditional pre-test, then program experience, then post-test, the participants instead answered pre and post-tests simultaneously following participation in the HGMP. This design helps ensure that the participants have an understanding of the concepts and can reflect over a holistic experience, helping to decrease any response-shift bias (Sibthorp, Paisley, Gookin, & Ward, 2007). In the context of this study, this design helps participants report any program outcomes in regards to perceived social support.

Setting

HGMP provides recreational therapy for combat and non-combat veterans by utilizing outdoor recreation and adaptive sports. Participants in the HGMP have a variety of service-related diagnoses or experiences with MST, anxiety, post-traumatic stress disorder, traumatic brain injury, and/or polytrauma (Gillette, n.d.). HGMP has three locations (Sun Valley, Idaho; Los Angeles, California; and throughout the state of New York), and the study was open to participants from all locations. As previously mentioned, HGMP offers camps throughout the year and thus rotates activities and the

theme based on the season. Some camps during the winter are themed as Snow Sports camps, offering activities such as skiing and snowmobiling, while some camps during the summer are themed as Water Sports camps, offering activities such as canoeing or wakeboarding. The programs typically include between eight and 10 participants and last approximately one week, held throughout the year. Program staff uses common attributes like marital status, hometown, gender, and type of injury to set participant groups for each camp. Intentionally planning camp groups for these shared attributes and maintaining small numbers is designed to facilitate peer bonds strong enough to continue after their experience.

There are programs specifically designed either for couples or singles. For couples camps, participants can bring a supporter with them to the HGMP. This could be a husband, wife, partner, or, in some cases, a friend. Gender is another factor that HG uses to differentiate camps by offering female-specific camps in addition to the mixed-gender camps. Regardless of the type or location of the programs, each is led by at least one Certified Therapeutic Recreation Specialist (CTRS), mental health professionals, peer mentors, and sport-specific staff. Program aspects include individual and group therapy sessions as well as sports or recreation and unstructured time.

While these different camps have factors that differ across them, one main thing that remains the same is the intentional incorporation of therapeutic themes for each day. These include "Bonds Win Battles, Healing Tools, Live Your Passion, I Am Valued, and Taking It Home" (Gilette, n.d., p. 7). *Bonds Win Battles* focuses on creating the feel of a unit with mutual support among participants. *Healing Tools* focuses on specifically

applying how recreation can improve mental and physical health, and relationships, as well as increase social interactions (Gilette, n.d.). *Live Your Passions* encourages participants to think about the kind of life they would like to live after they return home from HGMP, specifically focusing on activities they want to do, either for the first time ever or maybe for the first time post-injury (Gilette, n.d.). *I Am Valued* helps participants reflect on things they internally value about themselves and others, as well as what others may value in them (Gilette, n.d.). This theme is designed to help both participants and their supporters, and HGMP emphasizes this theme more during couples camps (Gilette, n.d.). *Taking It Home* celebrates accomplishments and facilitates time for participants to finalize and share their action plans for once they return home from HGMP (Gilette, n.d.). In addition to these daily themes, there is time set aside for small group discussion, during which staff may facilitate conversation based off group composition and need (i.e., if the group is just veterans, female only, mixed gender, or mixed veterans and supporters, the conversation topics will differ) (Gilette, n.d.). For example, conversation about feeling vulnerable could occur with female veterans who experienced MST, while conversation with supporters could include conversation about preventing learned helplessness (Gilette, n.d.). Intentionally choosing which participants attend which camps (i.e., having couples, female only, male only, etc) allows staff to facilitate therapeutic conversations among participants and, at times, supporters that is likely relevant for all participants as opposed to having a random mix of individuals with widely different experiences (Gilette, n.d.). Shared experiences may help participants create a bond with each other, contributing to the unit feel (Gilette, n.d.). HG also provides unit jackets to

participants that are unique to that specific program in order to create the feeling of a unit to which each participant can belong to, following military culture and tradition (Gilette, n.d.). HG staff also compiles the contact information for all participants and staff and provide this to each participant once the program is complete so participants can stay in contact with each other and with staff (Gilette, n.d.).

The researchers chose this organization because HGMP specifically focuses on facilitating social support in many of the ways identified above (Gilette, n.d.), they serve a high number of female veterans, and they intentionally follow up with participants post-camp, a factor that could potentially help with study participant recruitment. Additionally, Clemson University's Recreational Therapy department was already working to establish a research partnership with HG, so the organization was receptive to the thesis project.

Sampling

With IRB approval, the research team set inclusion criteria to female veterans who participated in any kind of HGMP's camps between June 2017 and June 2019. The researchers identified this timeframe for a number of reasons, including minimizing potential recall error if participants from too many years ago responded, as well as HG infrastructure errors resulting in missing participant data for the months prior to June 2017. Based off HGMP's programmatic inclusion criteria, participants needed to have served in any branch of the military (combat exposure and deployment not required) and have a service-related diagnosis, two factors which are considered the final of three inclusion criteria for this study. HG staff emailed the link for the Qualtrics survey to 87

female veterans who participated in HG programming between June 2017 and June 2019. They sent numerous follow up emails as well, and informally mentioned the project to eligible participants when completing over-the-phone follow up visits. In this email, staff included that the survey was voluntary and not tied to support they could receive from HG in the future (i.e., not participating in the survey would not prevent them from continuing to receive support). From here, prospective participants could click the link, and prior to starting they survey, they had the choice to either consent or deny consent to participating in the survey.

Data Collection Procedures

The larger research project utilized a large Qualtrics survey to collect data and included demographic questions such as VA disability rating, diagnosis, rank in service, when the individual participated in HGMP, and whether they have participated in similar programs before. The survey also included three different standardized measures: the Warrior Identity Scale, the Military to Civilian Questionnaire, and the Deployment Risk and Resilience Inventory-2 (DRRI-2). This thesis will only report information about the two subscales, the Post-Deployment Support and the Post-Deployment Family Experiences, from the DRRI-2 because they target information specifically relevant for social support. Participants answered all questions in both pre and post iterations, with participants answering separately based on their experiences before and after participating in HGMP. There was no time specification for the pre-HGMP reflection; participants were only asked to reflect on their overall experiences pre-HGMP. Data collection lasted for three months (between October 2019 and January 2020) and

included participants who attended HGMP over a span of 24 months (between June 2017 and June 2019). As such, for the post-HGMP reflection, participants may have responded to the DRRI-2 reflecting within a time frame of four to 27 months, depending on when they attending their specific program .

Instrumentation

Deployment Risk and Resilience Inventory 2 (DRRI-2)

The DRRI-2 is an updated version of the DRRI that accounts for the modern style of war and is designed to provide an increased understanding of factors contributing to post-deployment health of veterans, considering factors contributing to both risk and resilience (Vogt, Smith, King, & King, 2012a). This assessment can help practitioners examine a broad scope of factors that impact ones' quality of life post-deployment. By understanding a wholistic picture of circumstances in all stages of a veteran's life, perhaps the practitioner can better help that individual. The DRRI-2 has been found to have content validity with an average .39 for PTSD symptom severity and between .20 and .51 for anxiety symptom severity across the entire DRRI-2 (Vogt, Smith, King, & King, 2012a). Additionally, the DRRI-2 is psychometrically sound, efficiently short, and reliable (Vogt, Smith, King, & King, 2012b). The DRRI-2 has 17 individual subscales including pre-deployment life events, childhood family experiences, deployment environment, combat experiences, post-battle experiences, exposure to nuclear, biological, or chemical agents, deployment concerns, training and deployment preparation, support from family/friends, unit support, relationships during deployment, life and family concerns, family events, postdeployment life events, postdeployment

support, and postdeployment family experiences, but each scale has been approved to be administered independently (Vogt, Smith, King, & King, 2012b). Thus, in order to gain relevant information without overwhelming the study participants, this study only used two subscales related to interpersonal factors: Post-Deployment Support (reliability score of .90) and Post-Deployment Family Experiences (reliability score of .96) in order to investigate different aspects of social support. Both use Likert scales (1 = strongly disagree to 5 = strongly agree) and are scored with sum item totals. The Post-Deployment Support Scale has 10 total questions and a higher score indicates higher levels of perceived social support post-deployment. The Post-Deployment Family Experiences scale includes 12 total questions, and higher scores indicate more positive family experiences (Vogt, Smith, King & King, 2012b), a factor used in this study to give a more wholistic view of perceived social support specifically from a family standpoint.

Data Analysis

For the purpose of this thesis study, the researcher only analyzed the DRRI-2, specifically the Postdeployment Support and Postdeployment Family Experiences, in order to assess changes in perceived social support. After the completion of data collection, 37 individuals started the survey. Participants who did not start the DRRI-2 portion of the survey were removed from the study. The results for both the 10-item Postdeployment Support and the 12-item Postdeployment Family Experiences subscales were initially visually inspected to check for missing data.

Postdeployment family experiences subscale

In order to check for normality of data, the team explored the variables using SPSS. In order to check for internal consistency within the DRRI-2 (Laerd Statistics, 2015), the researcher tested the reliability of the items using Cronbach's Alpha, which indicated high internal consistency (= .819). The results from the family subscale failed to meet assumptions for skewness (1.630), kurtosis (2.825), Shapiro-Wilk ($p < .05$), and visual inspections of histograms, Q-Q plots, and box plots (Laerd Statistics, 2015). Due to this non-normal data, as well as small sample size (n=19), the Postdeployment Family Experiences subscale was analyzed using the Legacy Dialogue Wilcoxon Signed Rank test. Next, effect sizes were manually calculated. Then, median scores were created for each to see the median scores for the overall pre and post iterations.

Postdeployment support subscale

Similar to the previous procedures to test for data normality, the team explored the postdeployment support subscale using SPSS. The Cronbach's Alpha indicated high internal consistency (.744), and unlike the family subscale the support subscale did meet assumptions for skewness (.211), kurtosis (-1.024), Shapiro-Wilk ($p>.05$), and visual inspections of histograms, Q-Q plots, and box plots (Laerd Statistics, 2015). Although this indicates normally distributed data, due to the small sample size (n=19), the Postdeployment Support subscale was also analyzed using the Wilcoxon Signed Rank test. Effect sizes were then manually calculated. Next, the pre and post scores medians were run based on overall totals.

CHAPTER FOUR

RESULTS

Thirty-seven people responded to the survey, but as a result of the analysis (See Table 1), 18 participants were manually deleted because they exited the survey before completing these two portions of the questionnaire (n=19). All participants who started the DRRI-2 completed the entirety of both subscales. Participants either attended HGMP at the Sun Valley location (n=17) or the New York location (n=2), and most had previously participated in a similar recreation program (either outdoor recreation, adaptive sports, or general recreation) in the past (n=11). 78.9% reported some percentage of VA disability rating between 60 % (n=1), 70% (n=2), 90% (n=3), and 100% (n=9). Participants reported the following ranks: E-3 (n=1), E-4 (n=7), E-5 (n=4), E-6 (n=2), W3 (n=1), O-3 (n=2), Lieutenant Colonel (n=1), and Petty Officer Third Class (n=1). In term of diagnoses, participants self-disclosed PTSD (n=18), brain injury (n=4), GAD (n=12), hearing impairment (n=3), visual impairment (n=1), and depression (n=16). The following sections outline the analysis for each individual subscale.

Postdeployment Family Experiences Subscale

The Wilcoxon Signed Rank Test indicated that out of the 19 participants, 13 of their scores increased, two scores decreased, and four showed no change. Overall, there was a statistically significant increase in scores for Family Experiences from the pretest to the posttest iterations (*Mdn*=38, Mdn=48; $z = -3.18$, $p < .001$) with a medium effect size of .73 (Cohen, 1988; Laerd Statistics, 2015).

Postdeployment Support Subscale

Out of the 19 participants, 14 of their overall scores increased, one score decreased, and four stayed the same, based on the Wilcoxon Signed Rank Test. Individuals who participated in HGMP experienced a statistically significant increase in postdeployment social support from their pretest to posttest (*Mdn*=30, *Mdn*=39; z= -3.04, p= .002), with a medium effect size of .70 (Cohen, 1988; Laerd Statistics, 2015).

Table 1: Demographics

Disability Rating	60% = 1 70% = 2 90% = 3	100% = 9 Not answered/Not applicable = 4
Military Rank	E3 = 1 E4 = 7 O3 = 2 Lieutenant Colonel = 1	E5 = 4 E6 = 2 W3 = 1 Petty Officer 3rd Class = 1
Higher Ground Camp Location	Sun Valley = 17	New York = 2
Higher Ground Camp Year	June 2017 = 3 August 2017 = 1 September 2017 = 2 October 2017 = 3 January 2018 = 1	July 2018 = 2 August 201 8= 4 December 2018 = 1 May 2019 = 2
Diagnosis	PTSD = 18 Brain Injury = 4 Spinal Cord Injury = 1 GAD = 12 Hearing Impairment = 3	Depression = 16 Borderline Personality Disorder = 1 Chronic Pain = 1 Eating Disorder =1 Visual Impairment = 1

CHAPTER FIVE

DISCUSSION AND CONCLUSIONS

In an effort to help address the gap in the literature regarding female veteran experiences (Hawkins & Crowe, 2018a, 2018b; Lundberg et al., 2016), the purpose of this thesis was to investigate how participation in HGMP impacted perceived social support for female veterans post-deployment. The DRRI-2 was modified, asking participants to reflect on different aspects of perceived support before and after attending HGMP. By asking in these questions with the direct framing around their HGMP experience, the research team hoped to see how the participants' perceived social support was impacted by their participation in HGMP. The individual questions from the support and family experiences subscales each asked about something different, but the overall scores reflect the culmination of their perceived social support as opposed to specific instances of received support (Thoits, 2011). This study was also designed to contribute to the literature which has previously indicated that recreation and mutual participation can facilitate social support for participants or clients (Lundberg et al., 2016). Findings indicated an increase in perceived social support when participants compared their experiences prior to participant in HGMP to after HGMP. The results also show increased scores related to family experiences as measured by the DRRI-2.

Because perceived support is the generalized support over time (Thoits, 2011), a number of sources of support could have led to the increase in scores for both subscales of the DRRI-2. HGMP provided therapeutic programming that intended to increase social

support in different ways, from the participants' family, the staff, and other participants. HGMP provided the space where the participants were with similar others who have gone through similar experiences (Thoits, 2011), and facilitated conversations that could help them navigate their new normal life by talking with their peers. Sharing these experiences could have helped the participants feel less alone, increasing their perception of social support. Also, HGMP may have opened these participants up to receive support. For example, one theme was "I Am Valued" (Gilette, n.d.,), which may have helped the participants process and understand how other people in their lives had already been supporting them, but the participants may not have allowed themselves to see it before.

For participants who brought supporters with them, the supporters' perception of the veteran may have also changed as a result of supporter-focused conversation and seeing their participant successfully engage in challenging recreation at HGMP. As such, the participants' perception of family experiences may have improved because they feel more understood. For participants who did not bring supporters with them, even discussing their family life with other participants may have changed their own perception of their family life.

This study did confirm the results from prior studies (Gammonley & Luken, 2001; Lundberg et al., 2016) by indicating that participating in recreation programs with others can impact social support. Additionally, the results from this study contribute to a gap in the literature regarding social support and recreational therapy programming by suggesting that recreational therapy programming can contribute to the increase in social support.

Implications for Future Research or Practice

Although the small sample size and limited demographic data means this study does have limited generalizability, there are relevant applications for practice. The results suggest that in some cases an outdoor-based RT program may help facilitate an increase in perceived social support for female veterans. Perhaps HG programmatic structures contributed to the development of social support, which could indicate that other RT programs should adopt similar structures. As previously mentioned, HG offers continued support after the program in a number of ways; they schedule follow-up calls to check in with participants, allow their staff to communicate informally with participants, and provide financial assistance for participants to continue engaging in recreation post-HGMP. They have daily themes dedicated to facilitating bonds between participants and intentionally create unit ties between participants at each program iteration. This study has highlighted how further research is warranted into how these different programs facilitate social support for this population. This study indicated that participation could improve perceived social support, but not how. If future research unpacks the "how," programs can be more intentional. Because social support has widespread benefits that could help female veterans have a better quality of life, then programs serving female veterans should perhaps intentionally provide therapeutic programs that can facilitate increased social support. Additionally, HGMP allows participants to bring a supporter, and groups campers based on similar attributes (e.g., gender, location within the US, and marital status). Other practitioners can consider adopting similar policies in order to increase perceived social support for female veterans.

Because of the sample size, this study can serve as primarily an explorative, initial study that future studies to build upon and expand in numerous ways. For example, this study evaluated a program that offered follow up support, but additional studies could explore how the effectiveness of camps that provide follow up support differ from those that only offer during-camp support in terms of increasing social support. The participants were asked to reflect on their overall experiences before and after attending the HGMP, thus their reflections may have included support received after camp, but the survey did not differentiate this.

Another factor in the present study was that some participants attended female specific camps while others attended mixed gender camps. While this study was not able to analyze these groups separately due to the small sample size, future studies could investigate if the gender differences in camps impact the resulting change in social support. Also, some participants brought supporters with them to the program, and an additional study could look whether or not bringing supporters has a significant effect on social support after the program. Finally, while this study did indicate an increase in social support, contributing to the limited literature, future studies should still look at programmatic features and structures that may facilitate this increase in social support so that practitioners can intentionally incorporate this as a therapeutic outcome.

Limitations

With any study comes a number of limitations. Although the research team intentionally chose a retrospective design for the aforementioned benefits, there may have been some accurate recall challenges (Sibthorp, Paisley, Gookin, & Ward, 2007) due to

time since programming as well as certain health diagnoses (e.g., brain injury). Also, while the authors of the DRRI-2 indicated that the subscales could be administered separately from the entire measure (Vogt, Smith, King, & King, 2012b), this does hinder the research team from seeing the holistic picture of who that individual is and what they experienced before, during, and after service. Additionally, this study included a small sample size not necessarily representative of the female veteran population largely. Accessing the female veteran population typically presents challenges for researchers because there are limited amounts of female veterans who participate in programming for veterans. As such, the results of this are not generalizable, instead being more of an exploration into these specific HGMP participants. Additionally, the research team did not control who HG originally recruited which both potentially allows for a potential bias from respondents and limits the generalizability. There was also limited demographic information collected, and some demographic questions did not accurately reflect the vast nature of military culture; for example, there was a question asking for the number of deployments the individual completed, but not everyone was deployed, and the question regarding their rank did not include all ranks. In other words, this survey was developed for combat veterans only when in reality many participants were non-combat veterans who were never deployed.

Also, while there are numerous dimensions and types of social support (e.g., informational, instrumental), the measures chosen did not specifically look at these in a differential way. For example, while questions may have included a clear form of social support such as informational support in the question "I could go to my family members

or friends when I needed good advice," not all questions do, and there is not an even mix across the subscales. Although the questions were framed in their HG experiences, the results may have been impacted simply by a natural improvement in family experiences and social support that comes with increased time since being back home after service.

Some participants went to camps without any supporters with them, while others brought supporters with them; sample sizes were too small to analyze differences between these groups. With this, the questions did not differentiate specifically who they received support from. In other words, there was no real way to differentiate the change in support they may have experienced from the supporter they brought with them to camp versus other people in their life who may support them. Not differentiating between people who did or did not bring supporters may have covered up other potential results. This did not allow the researcher to investigate if HGMP facilitated an improvement in social support mainly for those who brought a supporter or if it was the support between fellow participants. Did an extraneous change in the participants while at camp change their perspective of how they have been supported? There are lots of additional factors that were not fully considered when designing this study.

Conclusion

Female servicemembers are an increasingly growing minority group within the military, but female servicemembers and veterans often report encountering a lack of adequate services, and they are also underrepresented in the literature (Hawkins & Crowe, 2018a, 2018b; Lundberg et al., 2016). Minority groups often lack adequate social support (Balcazar, Kelly, Keys, & Balfanz-Vertiz, 2011), but social support is widely

accepted in the literature to have positive impacts on health such as increased positive coping, improved community reintegration, and decreased posttraumatic stress symptoms (Aflakserl, 2010; Dworkin et al., 2017; Guay, Billette, & Marchand, 2006; Kaplan, Cassel, & Core, 1977; Lehavot et al., 2018; Ozbay Dimoulas, Morgan, Charney, & Southwick, 2007; Pietrzak, Johnson, Goldstein, Malley, Rivers, & Southwick, 2010). It has been indicated in some literature that social support can be facilitated through recreation (Gammonley & Luken, 2001; Lundberg et al., 2016). This thesis investigated if an outdoor recreation-based program could impact social support that female veterans experienced postdeployment by using two subscales from the DRRI-2 and found a statistically significant increase in postdeployment support and postdeployment family experiences. Practitioners can use this study to explore if their program can facilitate social support for their participants and if they should incorporate similar program aspects that HGMP implements. This study had numerous limitations such as small sample size, and thus can serve as more of an exploration into the effect of outdoor recreation on perceived social support for female veterans, while indicating that future studies should investigate which programmatic aspects impact the perceived social support for female veterans. Future studies can also differentiate between participants who bring supporters with them versus participants who do not.

APPENDICES

Appendix A

Deployment Risk and Resilience Inventory-2: Postdeployment Family Experiences Subscale

The sentences below refer to family experiences. Please mark how much you agree or disagree with each statement. If you spend time in more than one family setting, please answer these questions about the family in which you spend the greatest amount of time.	**Pre HG**	**Post HG**
1. My input was sought on important family decisions.	1 2 3 4 5	1 2 3 4 5
2. I felt like I fit in with my family.	1 2 3 4 5	1 2 3 4 5
3. My family members knew what I thought and how I felt about things.	1 2 3 4 5	1 2 3 4 5
4. I felt like my contributions to my family were appreciated.	1 2 3 4 5	1 2 3 4 5
5. I shared many common interests and activities with family members.	1 2 3 4 5	1 2 3 4 5
6. My opinions were valued by other family members.	1 2 3 4 5	1 2 3 4 5
7. I was affectionate with family members.	1 2 3 4 5	1 2 3 4 5
8. I played an important role in my family.	1 2 3 4 5	1 2 3 4 5
9. I spent as much of my free time with family members as possible.	1 2 3 4 5	1 2 3 4 5
10. My family members told me when they were having a problem.	1 2 3 4 5	1 2 3 4 5
11. I could be myself around family members.	1 2 3 4 5	1 2 3 4 5
12. I got along well with my family members.	1 2 3 4 5	1 2 3 4 5

Figure A-1: This is a mock model of the DRRI-2, modified to be a retrospective pre-post format, as shown to participants.

Appendix B

Deployment Risk and Resilience Inventory-2: Postdeployment Social Support Subscale

The next set of statements refers to social support. Please mark how much you agree or disagree with each statement	**Pre HG**	**Post HG**
1. The American people made me feel at home.	1 2 3 4 5	1 2 3 4 5
2. People made me feel proud to have served my country in the Armed Forces.	1 2 3 4 5	1 2 3 4 5
3. My family members and/or friends made me feel better when I was down.	1 2 3 4 5	1 2 3 4 5
4. I could go to family members or friends when I needed good advice.	1 2 3 4 5	1 2 3 4 5
5. My family and friends understood what I had been through in the Armed Forces.	1 2 3 4 5	1 2 3 4 5
6. There were family and/or friends with whom I could talk about my deployment experiences.	1 2 3 4 5	1 2 3 4 5
7. My family members or friends would have lent me money if I needed it.	1 2 3 4 5	1 2 3 4 5
8. My family members or friends would have helped me move my belongings if I needed help.	1 2 3 4 5	1 2 3 4 5
9. If I were unable to attend to daily chores, there was someone who would have help me with these tasks.	1 2 3 4 5	1 2 3 4 5
10. When I was ill, family members or friends would have helped out until I was well.	1 2 3 4 5	1 2 3 4 5

Figure B-1 This is a mock model of the DRRI-2, modified to be a retrospective pre-post format, as shown to participants.

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