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The invisible home front : impact, coping, and needs assessment of family and friends of unmarried U.S. military service members deployed to Iraq and Afghanistan

Sarah Elizabeth Keyes
Smith College

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Deployed to Iraq and Afghanistan

Abstract

Purpose: U.S. military institutions define service members' loved ones as including only dependent (married) spouse and children and provide information and support services to this group. However, around 50% of active duty military service members are unmarried and have "nondependent" loved ones such as parents, siblings, significant others, and friends who cannot access any of the military-provided information and support services. The aim of this study was to document the impact of war zone deployments on the family, significant others, and friends of unmarried service members and their coping methods, and to describe the support resources needed by this group. Methods: An innovative methodology pioneering social networking media for recruitment was piloted. Original data collection tools were developed to capture the needs and perceived availability of resources; standardized protocols were employed to measure perceived stress and coping. Nonpurposive convenience sampling recruited 22 nondependent family and friends (NDFFs) of unmarried U.S. military service members deployed to Iraq or Afghanistan to complete a mixed methods online survey. Findings: Findings align with extant literature on military spouses and NDFFs. Participants are deeply impacted by deployment and both desire and need support in coping. Discussion: Strengthening this invisible home front has important implications not only for those left behind, but also for the adjustment of our returning combat veterans. Recommendations for addressing these complex issues and suggestions for future research are discussed.

The Invisible Home Front: Impact, Coping, and Needs Assessment of

Family and Friends of Unmarried U.S. Military Service Members

Deployed to Iraq and Afghanistan

A project based upon an independent investigation,
submitted in partial fulfillment of the requirements
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Sarah Keyes

Smith College School for Social Work
Northampton, Massachusetts 01063

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Chapter I

Introduction

The impact of combat deployments on the loved ones of service members is a current concern given that the United States' and other countries' military forces are currently fighting two large-scale wars. In fact, since the beginning of combat operations in Afghanistan in October 2001, the United States military has deployed nearly 1.9 million service members to Iraq and Afghanistan (Institute of Medicine, 2010).

While some research on the deployment experiences of military spouses exists, little is known about the loved ones of unmarried service members and veterans. As of September 2008, approximately 55% of the active duty military force was married. Rates of married service members range across all branches of the military—from 45% in the Marine Corps to 60% in the Air Force. Data indicate that 52% of enlisted members of the active duty military force are married, while the figure is 70% among officers (Defense Manpower Data Center, 2008). Extrapolating from this data, we can estimate the around 45% of the total active duty military force is unmarried; 48% of enlisted members and 30% of officers. Thus, with approximately 50% of the current active duty force identifying as unmarried, it is important that the body of research be expanded to include not just spouses of married service members, but the extended family and friend networks of unmarried service members as well.

Knowing more about the cumulative impact of deployments on the families, friends, and communities of unmarried service members and married LGBT service members involved in the current wars will help inform and direct practice with this population, specifically in terms of

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targeted outreach; will inform and direct further research; and will inform and direct policy, specifically relating to the organization of systems for communication, provision of health and mental health care, and training and education of clinicians.

The Veterans Affairs (VA) administration of the federal government is the largest employer of social workers in the United States, currently employing 4,400 MSW social workers (NASW, 2008), compared to 628,000 social workers employed nationwide in 2008 (U.S. Department of Labor, 2009b). As well, each year between 600 and 700 graduate-level social work students are trained at VA centers across the country compared with around 15,000 MSW graduates each year (NASW, 2008). These figures give a conservative estimate of the number of social workers working with this population. They do not include those working at military installations around the world, those who work with veterans who receive care through public agencies, and social workers in private practice. In short, it is likely that most social workers will encounter the veteran population in the course of their careers.

It is even more likely that social workers will encounter a loved one of a service member in the course of their careers (Knox & Price, 1995). It is estimated that 60 to 90 million people are directly impacted by the wars in Afghanistan and Iraq when counting close family members of service members (i.e., spouses/partners etc., children, parents, siblings) as well as those who comprise a larger definition of family (i.e., grandparents, grandchildren, uncles, aunts, nieces, nephews, cousins, close friends, and colleagues). One third of these 60 to 90 million are children ages zero to 18. 700,000 children currently have a parent deployed to Iraq or Afghanistan (Darwin, 2009).

This study was motivated in part by the researcher's personal experience as the sibling of an active duty service member who has deployed to Iraq and Afghanistan multiple times. Over

the course of this sibling's military duty, the researcher experienced great difficulty finding support groups and other resources open to her; while there seemed to be many resources directed to meeting the substantial needs of spouses and dependent children of service members, there was a distinct absence of programs aimed at anyone else impacted by this sort of experience. It was not until several years into her sibling's career, when this researcher was able to connect with other military loved ones, that the researcher began to truly grasp the impact of these wars on herself and others like her.

This was an exploratory pilot study. The purpose of the research was twofold: to develop and pilot a methodology for looking at this complex set of issues, with the goal of adding to our knowledge about the impact on family and friends of having a valued friend or family member deployed to war in addressing the following question: among those who identify as impacted by the war-time service of a valued friend or family member, what is the impact of this experience, how do they cope, and what are their needs? The next section of this paper will survey the literature on this topic.

Chapter II

Literature Review

This literature review comprises four major sections bound by this introduction and a summary. It begins by describing military deployments in their current context. The next section provides a theoretical framework for the rest of the literature review as well as the overall study using the lenses of stress process theory and ecological theory. From there, the review examines the practical and clinical significance of the study's research question. Next is a discussion of the existing research on loved ones and military deployments in three areas: impact, coping strategies, and needs assessment. Finally, the review ends with a formal statement of purpose of the study and a discussion of the implications of the relevant body of literature on methodological considerations for this study.

Military Deployments in the Current Context

   Characteristics of the current conflicts. Since the beginning of combat operations in Afghanistan in October 2001, the United States military has deployed nearly 1.9 million service members to Iraq and Afghanistan (Institute of Medicine, 2010). The modern-day military is an all-volunteer force; that is, unlike prior large-scale military mobilizations, there is no military draft. The active component[1] of the U.S. Armed Forces is also smaller than in past conflicts

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[1] The active component of the U.S. Armed Forces is comprised of those military service members who serve full-time duty, sometimes known as "active duty." On the other hand, those who serve as part of National Guard or Reserve units are together known as the "reserve component" of the U.S. Armed Forces (Kadis & Walls, 2006).

which means, among other things, that service members are being sent on repeated deployments to the wars in order to sustain an extended conflict. Around 40% of current military service members have deployed more than once to Iraq or Afghanistan. Pressure upon human resource needs in the current conflicts has resulted in service members serving longer tours of duty—as long as 18 months in some cases—and having less time between deployments. Another unique difference between current and historical conflicts is a dramatically increased demand upon the National Guard and Reserves to staff the wars. In fact, of the more than 1.9 million service members who have deployed to Iraq and Afghanistan, roughly 300,000 and 240,000 of them are members of National Guard and Reserve units, respectively (Institute of Medicine, 2010).

Composition of the military force. The composition of the United States' all-volunteer military force serving in Iraq and Afghanistan is notable and in many ways different than that of previous wars.

Gender. Women make up 11% (200,000) of current forces deployed to the theaters under study, as compared with the 7,494 women who served in Vietnam (Institute of Medicine, 2010).

Age. According to Defense Manpower Data Center statistics for 2009, the average ages of military service members across all branches vary depending on rank and component (as cited in Institute of Medicine, 2010). The largest proportion of enlisted personnel is 20-24 years of age in both active (47%) and reserve (28.6%) status. For officers in active status, the largest proportion (26.2%) is 25-29 years old; for those in reserve status, the highest proportion (24.0%) is older: 35-39 years of age (Institute of Medicine, 2010).

Race. According to the Armed Forces Health Surveillance Center, of service members who have deployed to Iraq or Afghanistan, 66% are white, 16% black, 10% Hispanic, 4% Asian,

and 4% other race (as cited in Institute of Medicine, 2010). U.S. Census 2000 data for the total population of the United States in terms of racial identity was 75% white, 12% black or African American, 1% American Indian or Alaska Native, 4% Asian, and 6% some other race; a separate measure of ethnicity yielded 12.5% Hispanic origin in the total population (Grieco & Cassidy, 2001).

Dependents. Of those in active status across all branches and ranks, 43% have children; roughly 50% in this group are married (Institute of Medicine, 2010). The marital status rates of service members in these conflicts will be discussed later in this review and is a central aspect of the focus of this study.

Experience of service members.

Physical and mental health outcomes. The physical and mental health outcomes for veterans of the Iraq and Afghanistan wars have been well documented (Institute of Medicine, 2010; Hoge, Auchterlonie & Milliken, 2006). As of April 2011, 42,913 service members had been wounded in action in Iraq or Afghanistan; 5,958 had been killed (Iraq and Afghanistan Veterans of America, 2011). Service members wounded in action during the current conflicts have higher rates of survival than those in previous wars because of the widespread use of body armor, improved medical care available in the midst of battle, and advances in evacuation capabilities. As a result, more service members are returning home with serious and often debilitating physical and psychological injuries than ever before (Institute of Medicine, 2010).

Social outcomes. The social outcomes for veterans of the current wars have been reported as well (Institute of Medicine, 2010; Williamson & Mulhall, 2009; U.S. Department of Labor, 2009a; Bowling & Sherman, 2008; Galovski & Lyons, 2004; Demers, 2009). For example, these service members are experiencing higher rates of unemployment than the general

population (U.S. Department of Labor, 2009a), elevated rates of distress in intimate relationships (Riggs, Byrne, Weathers & Litz, 1998; Lyons & Root, 2001; Galovski & Lyons, 2004; Demers, 2009) and increased rates of divorce and domestic violence (Bowling & Sherman, 2008; Galovski & Lyons, 2004; Demers, 2009). Recent data on the reasons for which service members seek care at military mental health facilities indicate that a substantial proportion of inquiries are for relationship counseling (Department of Defense Task Force on Mental Health, 2007). It bears noting that, though a great many service members experience significant difficulty following deployment to war zones, historically and within the current conflicts, the majority of those who are sent on military deployment return without physical injuries, successfully readjust to community life, and show no signs of psychological difficulty (Hobfoll et al., 1991; Demers, 2009).

Experience of loved ones. A full consideration of the experience of having a loved one deploy to the current conflicts will be addressed later in this literature review. For now, an overview of the stressors experienced by loved ones will be provided.

Caretaker roles. Caring for a seriously injured service member can cause enormous amounts of stress on caregivers and on the relationship between the service member and loved ones caring for them (Demers, 2009). In fact, according to Blais and Boisvert and Calhoun et al., long-term changes in service member behavior or ability has been associated with higher divorce rates and increased risk for depression in the caregiver spouse (as cited in Institute of Medicine, 2010). Caring for a seriously injured service member may require relocating to be closer to health and mental health care services.

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Combat deaths. While many more service members are surviving wounds sustained on the battlefield, many others are not. The loved ones of service members killed in combat are left to grieve this loss (Defense Mental Health Task Force, 2007).

Suicides. Loved ones also lose service members through suicide with the rate of suicide in the military population (13.1% per 100,000 in 2007; Defense Manpower Data Center, 2011) higher than that in the general population (11.3% all ages, age adjusted per 100,000 in 2007; U.S. Census Bureau, 2011) in the most recent statistics. This researcher was unable to find any literature on the impact of a service member's suicide on loved ones, including his or her fellow unit members.

Daily life stressors. Besides caring for an injured service member, or grieving a loss, loved ones of service members face many unique deployment-related stressors, the likes of which are not found in the daily experiences of civilians. Deployments cause extended, and often repeated, separations from loved ones, sometimes with very little notice (Eaton et al., 2008; Albano, 1994; Darwin, 2009). Daily life in this context involves a great degree of uncertainty— from if or when a service member will deploy again, to the exact whereabouts of a deployed service member, to whether a service member will be injured or even killed while on deployment (Darwin, 2009; Black, 1993). Further, military families experience frequent moves and geographic distance from extended family support networks (Black, 1993).

As significant and "negative" as these stressors are, it bears noting that some studies identify important "positive" stressors related to having a loved one sent on military deployment; these will be discussed in a later section of this chapter. Suffice it to say for now that military deployments are stressful experiences (Warner, Appenzeller, Warner & Grieger, 2009; Padden,

Connors & Agazio, 2011). First, though, it is important to understand the meaning of the term *stress* as it applies in this context.

Theoretical Framework

Stress process theory. A diffuse concept like stress can be difficult to condense into tidy definitions or descriptions. Even a full review of the concept of stress in the context of military deployments is outside the scope of this study.

Pearlin (1999), in his stress process theory, asserts that there are three components to the stress process: stressors, moderators, and outcomes. *Stressors* are anything that disturbs one's natural capacity for adaptation. Many sorts of events or strains cause stress and, often, important stressors generate additional stress; this process is known as *stress proliferation*. Military deployments could be seen as causing stress proliferation for service members' loved ones. Stressor events which are unexpected—*unscheduled events*—such as premature death or involuntary job loss usually have negative consequences on a person's well-being, whereas *scheduled events* such as the predicted end of a rental lease have less of an impact.

Stressors can also take the form of *chronic stressors*—those which are often rooted in social structures and roles and thus are more enduring than event stressors. Chronic stressors can be broken into three categories: status strains, role strains, and contextual strains. *Status strains* are "stressors that arise directly from one's position in social systems having unequal distributions of resources, opportunities and life chances, power, and prestige" (Pearlin, 1999, p. 165). Examples of such social systems are socioeconomic status, class, race, ethnicity, gender, age, ability, and sexual orientation. *Role strains* are "stressors that arise within the context of institutionalized roles" (Pearlin, 1999, p. 165). People often experience role strains in the context of family or occupation roles. Various types of role strain can be seen: (a) conflict with

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those with whom one interacts in the course of carrying out a particular role; (b) difficulty meeting the demands of multiple, simultaneous roles; and (c) situations where the demand of the role exceeds the capacity of the incumbent.

Related to the latter type of role strain is Pearlin's concept of *role captivity* where a person does not wish for a role that circumstances force them to take (1999). Finally, *contextual strains* are stressors that derive from the "hardships and problems that derive from one's proximal environments, such as neighborhood and community" (Pearlin, 1999, p. 166). A discussion of contextual strains related to military deployment bears examining. Terr's concept of the psychological impact of the anticipation of trauma (1991) hypothesizes that prolonged exposure to the anticipation of traumatic events result in "massive attempts to protect the psyche and to preserve the self" (Terr, 1991, p. 15), and these efforts at self-protection can result in long-term personality changes.

People respond to stress by using resources at hand: coping skills, social support, and mastery. *Outcomes* describe the degree of mental health or well-being versus mental illness and disorder. In Pearlin's (2009) stress process theory, the stress process is entirely negative; he describes the process in terms of difficulties, strains, reductions in capacity, for example. This concept does not address the experience of positive stress: stress that motivates, leads to adaptation, creates opportunities for mastery, for example. Later in this chapter, existing research on the deployment experiences of spouses and other loved ones will provide examples of positive stress. While stress process theory does not address positive stress per se, its conceptualization of risk and protective factors provides the outlines of a structure that could incorporate an understanding of stress as both positive and negative. Risk and protective factors will now be discussed.

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Risk and protective factors. Pearlin (1999) describes a model for researching the stress process that focuses on groups of people involved in lasting and fundamentally challenging situations that may give rise to a variety of stressors. People in these situations will not necessarily face the same stressors; likewise, those who experience the same stressors may not do so with similar intensity. Thus, by targeting the situation rather than the specific stressor, a researcher may be able to learn about factors—often called *risk factors* and *protective factors*— that contribute to such differential experiences.

Ecological theory. The concepts of risk and protective factors are not only grounded in stress process theory but also ecological theory as ecological theory helps begin to explain the differential impact of similar stressors across populations. In general, ecological theory focuses on the "community embeddedness of persons and the nature of communities themselves" (Trickett, 1984, p. 265). The field of social work is rooted in the concepts that ecological theory holds. Indeed, Mary Richmond was one of the first ecological theorists, articulating the impact of the social environment on psychological functioning of individuals (as cited in Pardeck, 1996), known as the person-in-environment perspective.

It is important to point out that ecological theory in some respects is not a theory but rather a framework; it does not seek to explain the cause and effect behind a phenomenon, but instead to provide a model and language for understanding and describing phenomena (Trickett, 1984; Pardeck, 1996). As Munger (2000) puts it, "to think ecologically is to concentrate on the interrelationships between all levels that comprise an organism and its environment" (p. 11). Ecological theory provides a framework for addressing issues on multiple levels such as individual, family, small group, and larger society (Pardeck, 1996; Munger, 2000; Trickett, 1984;

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Moos, 2001). Likewise, this approach can both accommodate micro (clinical) and macro (policy and advocacy) interventions (Pardeck, 1996).

Commonality as to the defining tenets of ecological theory exist in the literature: (a) a person is understood to be influenced by multiple interacting factors which transform over time; (b) people and their social environments are interdependent; (c) individual problems are the result of transactions between the individual and his or her environment, and; (d) emphasis is placed on personal and environmental strengths, on growth and development, and on the attainment of goals (Pardeck, 1996; Kelly, 1979). In addition, Pardeck (1996) emphasizes a focus on the whole person rather than on individual pathology. Kelly (1979) holds that each time a new person or activity is introduced into an environment there is an impact, whether direct, observed, and/or positive. This latter point is particularly relevant to the planning of research designs and methods.

> As applied in the context of psychological trauma, ecological theory holds that:
> Psychological attributes of human beings are best understood in the ecological context of
> human community, and that individual reactions to events are best understood in light of
> the values, behaviors, skills and understandings that human communities cultivate in their
> members. (Harvey, 1996, p.4)

It follows then that interventions with traumatized populations would aim to help strengthen the person-in-environment by, for instance, lessening isolation, cultivating social skills and positive coping, and building a sense of connectedness in relevant social communities (Harvey, 1996).

More generally, empirical research results indicate that the types of issues precipitating poor mental health outcomes are multi-determined (Munger, 2000; Moos, 2001). In this regard,

using ecological theory as a framework for understanding mental health outcomes brings to light the many and varied factors in play. Indeed, those studying stress, coping, and their relationship have suggested that research in these areas has historically failed to integrate the impact of a person's environment on outcomes (Tashakkori, Brown & Borghese, 2010). The authors call for an approach to such research that uses a mixed methods or systems design and point out:

> An advantage to a systems approach is that it considers the individual's . . . milieu as an interconnected whole and not as a collection of isolated parts. By contextualizing stress and coping, such an approach provides a stronger possibility for examining the role and impact of people and institutions that influence . . . stress and coping in systems. (Tashakkori et al., 2010, p. 38)

It is only on the basis of such a culturally-informed, person-in-community-focused understanding that viable practice and policy interventions may begin to be constructed (Moos, 1973; Pardeck, 1996).

Social support. The concept of risk and protective factors illustrate one intersection of stress response theory with ecological theory. Another example of the intersection of these two theories is the concept of social support. Pearlin (1999) considers social support among the resources people use to respond to stress. Other resources, according to Pearlin, include coping skills and mastery (1999). Others seem to agree with Pearlin in describing social support as having the potential for producing a stress response, or for adding to coping mechanisms (for instance, Lazarus & Folkman, 1984; Stewart, 1989; Ozbay et al., 2007; Moos, 1973). Further, social support is seen as a resource "linked in a dynamic process of transactions between the individual and his or her social environment" (Vaux, 1988, p. 28). Lazarus and Folkman (1984)

add to this definition; for them, social support is a transactional process that changes with the demands of the stressful encounter. In summary, social support is an important coping resource that exists in complex interaction with the stress process itself and with the individual's larger ecosystem, or social environment.

Practical and Clinical Significance

  Impacted population. As outlined earlier in this chapter, military deployments set the stage for risk of psychological and psychosocial stress and distress. The experience of extreme stress has differential effects on individuals and communities. Depending on unique risk and protective factors, in general, greater risk for psychological and/or psychosocial stress turns on two main factors: the greater the threat of loss or actual loss, the higher the risk and; those with few coping resources are more likely to become overwhelmed and, thus, are at greater risk (Hobfoll et al., 1991; Lazarus & Folkman, 1984). Hobfoll et al. (1991) note that military service members as well as their loved ones have the potential to meet both risk criteria as a result of their experiences related to military deployments.

  Military service members. A demographic description of military personnel deployed in the current conflicts was discussed earlier in this chapter. As the focus of this study is the loved ones of deployed service members, this literature review will not go into further detail on the experiences of the service members themselves.

  Loved ones of military service members.

  Spouses and legal dependents. Roughly 50% of active component service members are married (Defense Manpower Data Center, 2008) meaning that approximately 700,000 spouses of these service members have experienced one or more deployments; in the reserve component,

49% are married (Institute of Medicine, 2010) for a total of around 270,000 spouses who have experienced one or more deployments.

Across both active and reserve components, on average, 38% have two children age 23 and younger (Institute of Medicine, 2010). That is, about 940,000 service members who have deployed in the current conflicts are parents of an estimated 1.8 million children. Among children of active component service members, the largest group is zero to five years old. For the reserve component, this group is six to 14 years old (Institute of Medicine, 2010). In summary, 700,000 spouses and 1.8 million children 23 and under have experienced the deployment of a spouse or parent, respectively.

Loved ones other than spouses and legal dependents. Dr. Jaine Darwin, co-founder of the pro bono mental health project SOFAR (Strategic Outreach to Families of All Reservists) notes that "there is no soldier without a family" (Darwin, 2009). However, while a wide array of demographic statistics regarding spouses and dependent children are available, very little is known as to demographics of the extended family of service members, such as the service member's parents, unmarried partner, siblings, grandparents, aunts and uncles, as well as members of his or her nonfamilial social support network, such as friends and neighbors (Institute of Medicine, 2010; Department of Defense Task Force on Mental Health, 2007). Yet, there is reason to believe that families and friends certainly are impacted by deployments regardless of the service member's marital status (Department of Defense Task Force on Mental Health, 2007; Sherman, 2003; Demers, 2009). For example, one researcher reported that in the first three years of a family psychoeducation intervention that was open to both family members and/or caregivers, less than half of those attending identified as the spouse of a veteran (Sherman, 2003).

Darwin estimates 11.8 million people comprise the immediate family—spouses and dependent children plus parents and siblings—of service members who have served in Iraq and Afghanistan (Darwin, 2009). She estimates that a figure that would include aunts, uncles, nephews, nieces, friends, neighbors, and co-workers increases to 60 to 90 million people (Darwin, 2009). This is a staggering number, especially considering that spouses and dependent children of all service members who have deployed to the current conflicts comprise only 2.5 million of this 60 to 90 million figure.

Given the magnitude of people who make up the larger network of loved ones of service members involved in the current wars, and the extent to which their needs and capacity to serve as a resource to service members are underrepresented in the literature, this study will focus on the extended family and friends of service members who have deployed to the wars in Iraq and Afghanistan.

Status from perspective of military institutions.

Definition of **family.** The federal military institutions—namely the Department of Defense (DoD) and the Veterans Administration (VA)—essentially define the service member's *loved ones* as his or her family; these institutions define *family* as legal spouse and dependent children (Institute of Medicine, 2010). In this report, those in the subset of loved ones that includes a service member's legal spouse and dependent children will be referred to as *military-endorsed benefit-eligible* (MEBE).

In essence, under the federal military institutions' definition, people who might be recognized by the general public as family—those such as partners, boyfriends, girlfriends, fiancé/es, parents, siblings, adult children and grandparents (not to mention friends and other non-kin)—are excluded under this definition. Likewise, under the so-called Don't Ask Don't

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Tell policy which prevented LGBT men and women from serving openly in the U.S. Armed

Services, the legally married same-sex spouse of a service member would also not be recognized

by these institutions. Even with the recent steps to repeal this policy, the Defense of Marriage

Act bars same-sex spouses of military service members from receiving benefits and other legal

statuses and rights that opposite-sex spouses receive. For this study, those falling into a second

subset of loved ones will be referred to as *nondependent family or friend* (NDFF). This group

includes nondependent family of service members such as parents, siblings, adult children,

grandparents, aunts, uncles, cousins and others in the larger extended family network; same-sex

spouses of LGBT service members; nonmarried significant others; and other non-kin such as

friends, neighbors, and co-workers.

   Implications of nondependent family or friend status. One implication of military

institutions' particular definition of family is that, technically speaking, an unmarried service

member has no family. Put differently, the loved ones of unmarried service members and, to a

similar extent, same-sex spouses (both NDFFs) are not only ineligible for services provided by

the DoD and VA, such as health and mental health care, but they are also denied access to

important information and communication systems.

   In addition to their general anonymity in the formal statistical and research literature,

members of this population experience special obstacles in accessing services, resources, and

information. For instance, in general, only MEBEs are eligible for benefits from the DoD or VA

(Department of Defense Task Force on Mental Health, 2007).

   Similarly, NDFFs report needing access to military installations in order to provide

support, especially to unmarried service members. However, they are not typically eligible to

hold a military identification card which would allow such access. As a result, the process for

gaining entrance to military installations is often cumbersome for this population. Likewise, NDFFs lack access to information from the military. Topics of interest to NDFFs from the literature include the service member's whereabouts and well-being during a deployment; the health and mental health of the service member; how to recognize signs of combat stress, post-traumatic stress disorder (PTSD), substance abuse, and other mental health issues; what to expect when a service member returns home and how to handle challenging situations during this reintegration period; and how to access support for themselves before, during and after deployment (Department of Defense Task Force on Mental Health, 2007).

Further, NDFFs want access to communication networks such as those available to members of official military support groups for families such as the Army's Family Readiness Groups (Department of Defense Task Force on Mental Health, 2007). Given the important implications of nonfamily status, this study will focus on the NDFFs of unmarried service members and married LGBT service members.

Summary. This section identified those at risk for psychological and psychosocial distress resulting from military deployments, namely deployed service members themselves and also their loved ones. Descriptive statistics and demographic information on loved ones was provided and highlighted an important reality: research and statistics on the experience, impact, coping strategies, and needs of the MEBEs dominates while very rarely are the same areas addressed as regards NDFFs. Nonetheless, the total number MEBEs and NDFFs of those service members who have deployed to the current conflicts is estimated as high as 90 million.

The federal military institutions' narrow definition of family to include only spouses and dependent children, and the implications of this definition, were considered. Most relevant to the purpose of this study is that, though the current active duty force is split 50/50 in terms of marital

status (Defense Manpower Data Center, 2008), the NDFFs of unmarried service members are all but absent from the research literature. Further, not only are NDFFs ineligible for services provided by the DOD and VA such as health and mental health care, they are also denied access to important information and communication systems as sources of support. Similar difficulties faced by same-sex spouses of LGBT service members were also addressed. Given the underrepresentation of NDFFs in the body of literature, this study will focus exclusively on NDFFs of unmarried service members and married LGBT service members who have deployed to Iraq and/or Afghanistan.

Critical Analysis of Relevant Research

Impact on MEBEs and NDFFs.

Overview. Most studies of the impact of deployment on military loved ones have focused on the secondary effects of service members' military-related trauma on MEBEs (Bowling & Sherman, 2008; Dekel & Goldblatt, 2008; Suozzi & Motta, 2004; Leiner, 2009; Riggs et al., 1998; Lyons & Root, 2001; Galovski & Lyons, 2004; Erbes, Polusny, MacDermid & Compton, 2008; Peebles-Kleiger & Kleiger,1994; Rosenheck & Fontana, 1998; Sherman, 2003; Figley, 1993; McCubbin, Dahl, Metres & Hunter, 1974; Lyons, 2007).

Several recent reports have detailed such impact through the intergenerational transmission of trauma of the individual service member's combat experiences (Dekel & Goldblatt, 2008; Suozzi & Motta, 2004; Leiner, 2009; Darwin, 2009). An empirical study of the relationship between the intensity of combat exposure of Vietnam veterans and the transmission of trauma symptoms to their adult children used several self-report instruments to gather data that revealed that the adult offspring of combat veterans show secondary trauma symptoms with severity relative to the intensity of the parent's combat experience (Suozzi & Motta, 2004).

Another report noted that combat trauma is transmitted intergenerationally through over disclosure, reenactment, identification, and silence (Leiner, 2009).

The impact on intimate partners of service members returning from Iraq and Afghanistan is seen in elevated rates of distress in intimate relationships (Riggs et al., 1998; Lyons & Root, 2001; Galovski & Lyons, 2004) and increased rates of divorce and domestic violence (Bowling & Sherman, 2008; Galovski & Lyons, 2004). Likewise, recent data on the reasons for which service members seek care at military mental health facilities indicate that a substantial proportion of inquiries are for relationship counseling (Department of Defense Task Force on Mental Health, 2007).

While the impact on MEBEs and NDFFs of an intimate partner or parent's war-related trauma is a significant concern, the literature also seems to indicate that military deployments impact MEBEs and NDFFs regardless of the existence of war-related trauma and/or PTSD (Warner et al., 2009; Padden et al., 2011; Demers, 2009; Wheeler & Torres Stone, 2010; Davis, Ward & Storm, 2011; Darwin, 2009). For instance, in one study MEBEs were impacted in the lead up to even their first deployment (Warner et al., 2009).

The nature of the impact of deployment on MEBEs and, to a lesser extent, on NDFFs described in the literature includes elevated levels of stress and perceived stress (Padden et al., 2011; Demers, 2009; Eaton et al., 2008; Darwin, 2009; Lyons, 2007), physical symptoms (Padden et al., 2011; Demers, 2009; Dimiceli, Steinhardt & Smith, 2010), decreased mental well-being (Padden et al., 2011; Demers, 2009; Eaton et al., 2008), emotional "roller coaster" (Wheeler & Torres Stone, 2010; Davis et al., 2011; Demers, 2009; Darwin, 2009), verbal or physical abuse and/or domestic violence (both victimization and perpetration thereof) (Demers, 2009; Darwin, 2009),substance abuse (Demers, 2009; Eaton et al., 2008), financial difficulties

(Darwin, 2009), and personal growth and other positive outcomes (Wheeler & Torres Stone, 2010; Davis et al., 2011; Demers, 2009; Lyons, 2007).

Multiple studies have found that deployments were stressful for MEBEs and NDFFs (for example, Demers, 2009; Padden et al., 2011). In multiple studies on the impact of deployment on MEBEs stress was negatively related to the participant's age, his or her spouse's age, and number of years of service (Padden et al., 2011; Davis et al., 2011). Likewise, higher perceived stress was related to lower physical and mental well-being.

MEBEs show elevated perceived stress scale scores. In one recently published study, 295 spouses of Army members were surveyed as they prepared for deployment (Warner et al., 2009). Participants were administered the 14-item Perceived Stress Scale and their scores were higher than the norm for this population (Warner et al., 2009). Of those surveyed, 90% reported "feeling lonely" and "the safety of my deployed spouse" as sources of stress. More than half of respondents endorsed role strains such as "raising a young child while my spouse is not present" and "balancing between work/family obligations" as well as "having problems communicating with my spouse," as additional sources of stress (Warner et al., 2009). Other recent publications have endorsed similar role strains and difficulty with communication (Demers, 2009; Darwin, 2009).

Padden et al. (2011) examined stress, coping and well-being among a group of 105 female spouses of active duty Army members stationed at an East Coast Army post and currently on deployment. Stress was measured with the 10-item Perceived Stress Scale (Padden et al., 2011) with mean scores for the sample of 17.5, which were higher than those in a normative civilian probability sample (13.7) of N=2,387 adult male and female residents of the United States (Cohen & Williamson, 1988).

Notably, this study collected data on two characteristics discussed rarely in the body of literature: whether the spouse grew up in a military family, and whether the spouse supported the current wars.

MEBEs experience a roller coaster of emotions. In one of the few studies of spouses of National Guard service members deployed to the current conflicts, Wheeler and Torres Stone (2010) examined the impact of deployment on Army National Guard spouses by conducting semi-structured interviews with nine white, non-Hispanic, highly educated female spouses of officers and noncommissioned officers. Participants talked about the impact of deployment on themselves, their spouse, their marriage and their children, if applicable. Then they described how they coped with deployment, who was helpful to them in this experience, and any other relevant information. Common emotional and psychological effects were concerns for the spouse's safety, and a "roller coaster" of emotions, and difficulty concentrating (Wheeler & Torres Stone, 2010). The spouses also described physical effects including nausea and disrupted sleep.

Perhaps the most interesting finding in this study was that some of these women reported positive outcomes resulting from the deployment experience. The women described a sense of gratitude for existing things in their lives, and greater self-awareness. The deployments were a time where some of these spouses introduced positive changes into their lives and experienced important personal growth (Wheeler & Torres Stone, 2010).

Participants in Davis et al.'s (2011) qualitative study of 11 spouses of active duty Army service members then-deployed to Iraq also identified having felt a "roller coaster of emotions." They described the lows as fear about the spouse's safety, loss and grief for all of the sacrifices they were making in the deployment, and a sense of powerlessness in the face of the multiple

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uncertainties of their lives (2011). On the other hand, the highs included positive marital changes, increased self-confidence, self-discovery, and pride in their accomplishments (2011).

Deployments are stressful for NDFFs. One study explored the experiences of parents, spouses, partners, siblings, uncles, cousins and in-laws of services members who had completed repeated deployments to the current conflicts (Demers, 2009). Purposive sampling recruited a small sample (N=23, of which two were spouses and the balance were NDFFs) and qualitative data was gathered through focus groups taking place in the San Francisco Bay area. Participants exhibited symptoms of emotional distress (i.e., anxiety, behavioral disorders, and anger) and it was supposed as likely that some of them were suffering with depression (Demers, 2009). They also reported negatively impacted relationships (with the service member, other family members, friends and co-workers), role strain (balancing dealing with their own emotions with helping their children and grandchildren understand and process their responses), feeling unprepared to care for or even live with their returned service member, victimization (by verbal or physical abuse and/or domestic violence), and substance abuse (Demers, 2009). More than one participant identified as a Vietnam veteran and endorsed a resurgence of emotional pain from their combat experiences with the deployment of a loved one to the current wars (Demers, 2009).

Summary. Literature on impact indicates that deployment is a stressful experience for both MEBEs and NDFFs and that stressors derive from a wide variety of triggers, ranging from psychosocial stressors such as reduced family income, to psychiatric difficulties, to physical symptoms, to emotional crises. Both risk and protective factors were identified across studies, although deployment has a differential impact.

MEBE and NDFF coping strategies.

Overview.   Stress resulting from a loved one's military deployment necessitates coping.
A survey of relevant literature on how MEBEs and NDFFs cope with deployment finds both
problem-focused and emotion-focused strategies are used. Problem-focused efforts are aimed at
changing or managing the source of the problem. Emotion-focused strategies target managing or
reducing emotional distress (Lazarus & Folkman, 1984).

MEBE coping strategies – research examples.   Participants in Davis et al.'s (2011)
study of spouses of active duty Army service members then-deployed to Iraq endorsed the
following coping strategies: positive thinking, realism, self-determination, setting self-protective
boundaries (for example, abstaining from taking in news reports about the wars), reaching out to
others, and staying busy.

Wheeler and Torres Stone (2010) found that spouses coped by engaging in expressive
outlets, keeping busy (especially by spending time with friends and family), relying on their
spirituality, maintaining contact with the deployed spouse through use of communications
technology, and avoidance. Particularly interesting was that two women reported that when
relying on friends and family for help, to the extent that they had friends and family who had
been through the deployment of a spouse, this was even more helpful (Wheeler & Torres Stone,
2010).

Dimiceli et al. (2010) conducted a quantitative examination of coping strategies used by
military spouses during deployments and found that acceptance, planning, active coping,
religion, self-distraction, emotional support, and positive reframing were most often used.

Padden et al.'s study of 105 Army spouses rated coping behavior using the 60-item
Jalowiec Coping Scale which scores responses on the basis of eight different coping styles

(2011). Results indicated that greater use of evasive (i.e., denial/disengagement) and emotive (e.g., venting of emotions) coping styles were related to decreased mental and physical well-being.

NDFF coping strategies – research examples. Demers' (2009) study identified two primary categories of coping among NDFFs (n=21) and MEBEs (n=2): "reacting, which emerged as states of hyperarousal, and seeking to avoid feelings or thoughts about their circumstances" (Living with Deployment section, para. 2). Many participants described reacting to the stress of their experiences with anxiety or depression and a few male participants in Demers' study articulated rage relating to lack of control over their loved one's safety while deployed, and distress in the relationship with the service member when he or she returned home. In contrast to these hyperarousal responses, other participants in Demers' study described the desire to numb their emotional pain, which they attempted to do by withholding their thoughts and worries in order to protect themselves and other loved ones, and by consuming alcohol (2009).

In a rare study that included in its research question both spouses and unmarried significant others of service members, Spera (2009) used data from the Air Force Community Assessment of 65,000 active duty personnel to examine the service member's perceptions of his or her spouse's or significant other's ability to cope with deployment. The study found that "a higher percentage of midgrade and senior enlisted personnel with a significant other compared to their [married] counterparts reported their partner would have a serious or very serious problem coping" (Spera, 2009, p. 302). Regarding perceptions of spouses' ability to cope:

The proportion of active duty members indicating their spouse would have a problem

coping declined as levels of support from leadership, formal base agencies, and

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community social support (including the perceived efficacy of the collective community of spouses) increased. . . . Perhaps the most encouraging implication of these findings is that they lend support to the notion that spouses' ability to cope with deployment is not solely a fixed trait based on personality (e.g., temperament) but rather is something that is malleable and therefore related to being 'well connected' to their military leadership and their community at large, especially other military spouses. (Spera, 2009, p. 302)

The suggestion that spouses' ability to cope improves with increasing levels of support from the community points to the importance of an ecological approach to assessment and intervention in this area.

 Summary. Like their service member loved ones, the literature shows that many MEBEs and NDFFs value self-sufficiency and indeed show notable resourcefulness, resilience, and adaptive coping. However, many others are struggling to adapt to the circumstances of their loved one's deployment and to cope with related, often chronic, stressors. Notably, in Demers' (2009) qualitative study of military loved ones (n=21 NDFFs and n=2 MEBEs), participants' primary coping strategies were avoidance and hyperarousal, two of the hallmark responses to traumatic stress. The definition of what methods constitute successful, healthy coping seem to vary widely across individuals, indicating multidimensional factors are at play in any loved one's environment. However, research does indicate that over the long-term, coping strategies which are inflexible, or continue to be used despite obvious failure at adaptation, can have negative impacts on outcomes (Erbes et al., 2008).

MEBE and NDFF needs assessment.

Overview. Literature on the resource needs of MEBEs and NDFFs and on barriers to access for this population is rich in that it is informed by researcher findings and recommendations as well as the observations of MEBEs and NDFFs themselves. MEBEs and NDFFs need psychoeducational resources, skills training, tangible support, improvements in quality of mental health care, access to information about their service members while they are deployed, and opportunities for socialization and further integration into their communities. Barriers to access are systemic and many MEBEs and NDFFs have already been deeply disappointed in their attempts to seek help. Civilians and military leaders have important roles in meeting the needs of MEBEs and NDFFs, and must do so rapidly.

Remove systemic barriers to access. Research has found that across clinical populations, low participation rates for family interventions are a challenge (Galovski & Lyons, 2004). Military families seem to be no different (Lyons & Root, 2001). Reasons for nonattendance cited by MEBEs as well as NDFFs are most often: schedule conflicts chiefly with work, difficulty with transportation, lack of childcare, and travel distance (Lyons & Root, 2001).

Increasing access also involves shifting the focus of interventions with military families. In their 2004 review of 141 peer-reviewed journal articles on the impact of PTSD on service members' families (mostly MEBEs, but also NDFFs), Galovski and Lyons concluded that:

> Given the level of distress among veterans' family members indicated in a number of studies, research must expand to address interventions aimed at reducing the impact on family members rather than solely viewing interventions as ancillary to the veterans' care and veterans' treatment goals. Collaboration among VA, community groups, and family

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members is needed to generate creative options and increase the range of clinical services

and social activities available to families. (2004, p. 496)

Others have called for increased access to clinical and social services for both MEBEs and

NDFFs (Sherman et al., 2005; Spera, 2009; Demers, 2009). In particular, MEBEs and NDFFs

have asked that the basic eligibility requirements for participating in programs and receiving

services be revised to allow wider and easier access (Sherman et al., 2005; Demers, 2009; Lyons

& Root, 2001). It is not solely NDFFs who encounter problems resulting from limited access to

services and resources; indeed, MEBEs want the ability to access services and resources

regardless of whether the service member makes use of them, too. Galovski and Lyons noted

that "some VA medical centers, Vet Centers, and many veterans' organizations sponsor

occasional family outings or holiday gatherings, but in many locales these are infrequent and

families have access only through the participation of the veteran" (2004, p. 495). Tying access

to participation of the service member is a significant barrier to access when the service member

is opposed to participation. Likewise, those who do not reside near the service member are

essentially excluded from using such resources under this policy.

   Prior attempts to seek help have failed. MEBEs and NDFFs in various studies talked

about their disappointment when attempts to get help with coping with the stress of deployment

were unsuccessful, even disastrously so (Demers, 2009; Davis et al., 2011; Peebles-Kleiger &

Kleiger, 1994). Efforts to process thoughts and feelings with the service member, other family,

friends, and even fellow MEBEs and NDFFs had fallen short. Among the negative responses to

these attempts that MEBEs and NDFFs described were: being judged, being labeled as

unpatriotic, and being told they were complaining excessively. As a result, MEBEs and NDFFs

often felt silenced and found that they had no outlets for emotional support (Demers, 2009; Davis et al., 2011).

Reduce anonymity and isolation. In the literature, MEBEs and NDFFs have described a sense of loneliness and aloneness relating to the deployment experience (Warner et al., 2009; Davis et al., 2011; Lyons & Root, 2001; Lyons, 2007) and researchers have pointed out the distinct absence of research and literature on the well-being of military families and communities (Hoshmand & Hoshmand, 2007). However, the existing literature indicates that MEBEs and NDFFs need and want to be less anonymous and to feel less isolated (Demers, 2009; Spera, 2009; Davis et al., 2011). Indeed, in Demers' (2009) study of NDFFs (n=21) and MEBEs (n=2) with a service member deployed to Iraq:

> Participants had a very strong desire to locate sources of support, particularly the need to talk about their experiences with others who were either living with similar circumstances or who were compassionate and could listen without judging or bringing politics into the dialogue. (Seeking Support section, para. 2)

Similarly, as mentioned in the Coping section of this chapter, Spera's (2009) review of service members' perceptions of their spouse and/or significant other's ability to cope with deployment showed that significant others (NDFFs) were perceived to have considerably greater difficulty coping. The study went on to suggest areas for expanded assessment of needs:

> While it makes intuitive sense that significant others may not yet be accustomed to coping with deployment, this group (i.e., midgrade and senior enlisted with a significant other) may warrant additional attention from military human service providers and leadership with respect to deployment preparation support. It is important to recognize

the need to provide deployment support services not only to spouses but also to

significant others who may be likely to have a hard time coping with deployment and

may also be unlikely to have strong connections with other spouses or significant others

in the unit or community who are separated from their loved one. (Spera, 2009, p. 302)

In addition to carrying out needs assessments focused on NDFFs, researchers have

suggested that comprehensive screening at various levels in the community can help to identify

those loved ones—NDFFs in particular—who would otherwise likely remain invisible and

anonymous. Throughout the literature are recommendations that mental health clinicians,

counselors in school settings, physicians, teachers, nurses, and clergy routinely ask those they

come in contact with if they have a loved one in the military (Demers, 2009; Darwin, 2009;

Davis et al., 2011; Eaton et al., 2008; Peebles-Kleiger & Kleiger, 1994; Black, 1993). Further,

researchers recommend establishing support/self-help groups available to not only to MEBEs but

also to NDFFs, where they can safely discuss their fears and concerns about their service

member and deployment (Demers, 2009; Black, 1993).

   Deliver psychoeducation and skills training. Researchers have recommended psycho-

educational campaigns to inform service members, MEBEs, and NDFFs (Peebles-Kleiger &

Kleiger, 1994; Darwin, 2009; Knox & Price, 1995). The dissemination of such information

could help to identify earlier those at risk, normalize stress responses among loved ones and

service members, address myths and stigmas about mental health services, and help prepare for

life changes caused by military deployments (Darwin, 2009; Knox & Price, 1995). Lyons and

Root (2001) surveyed MEBEs and NDFFs participating in two VA PTSD family programs and

found that while MEBEs felt they were already well-informed about PTSD symptoms, NDFFs

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expressed strong interest in receiving such information. MEBEs and NDFFs expressed interest

in learning communication skills and social skills to help strengthen relationships (Lyons &

Root, 2001; Darwin, 2009) as well as in accessing resources to address tangible needs (e.g.,

financial and/or legal difficulties; Lyons & Root, 2001; Kolakowsky-Hayner, Miner & Kreutzer,

2001).

Improve quality of mental health care. For the most part, MEBEs are referred to

civilian mental health clinicians in the community because military resources are at capacity

treating service members (Eaton et al., 2008; Hoshmand & Hoshmand, 2007). For NDFFs,

seeing a civilian mental health clinician in the community is the only option. This means, in

effect, that MEBEs and NDFFs receive mental health care almost entirely from civilian

clinicians. Given these realities, many researchers have underlined the importance of training

civilian clinicians on the unique needs and circumstances of military loved ones, both MEBEs

and NDFFs (Eaton et al., 2008; Darwin, 2009; Erbes et al., 2008; Hobfoll et al., 1991; Peebles-

Kleiger & Kleiger, 1994; Knox & Price, 1995; Demers, 2009).

Civilians' role in meeting needs.

As neighbors. Davis et al. (2011) heard from participants in their qualitative study many

ideas for ways that civilians could support MEBEs. The authors summarized this concept as

"taking supportive action" (Davis et al., 2011, p. 60). It was important to the MEBE participants

in this study that deployment be recognized, regardless of one's views about the wars, and that it

be recognized as a joint effort of the service member plus those impacted by his or her service

(Davis et al., 2011). Participants wished for friends and strangers to say "thank you" so that they

might feel acknowledged and "not alone" (Davis et al., 2011, p. 59). They also welcomed

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tangible support from the community in the form of offers to babysit, cook, or help around the house.

As mental health clinicians. The needs of MEBEs and NDFFs should be of critical concern to the mental health community (Hoshmand & Hoshmand, 2007; Black, 1993). Hoshmand & Hoshmand recommend that mental health clinicians take up efforts through a combination approach of systems theory, ecological theory, and community organizing beginning with a thorough needs assessments and research on resiliency factors and opportunities for community-military partnerships (2007).

Based on their interviews with MEBEs, Davis et al. (2011) also made a number of recommendations for mental health clinicians working with MEBEs and NDFFs: (a) listen attentively, (b) normalize the emotional ups and downs of deployment, (c) help identify positive coping skills and negative influencers, (d) help loved ones communicate their needs to civilian friends and family, and (e) represent positive military-civilian connections regardless of political views on the war by recognizing MEBEs' and NDFFs' sacrifices. Hobfoll et al.'s (1991) research on Operation Desert Storm made similar recommendations for clinicians.

Military leaders' role in meeting needs. Research on work separation demands has indicated that support for MEBEs from the work organization (Spera, 2009; Orthner, 2009; Black, 1993) and social support connections (Orthner, 2009) are significant protective factors in maintaining their personal well-being. When work organizations provide a supportive climate for families of employees (for example, by providing health and mental health care, child care assistance, flexible scheduling), MEBEs better adjust to life during the separation (Orthner, 2009; Knox & Price, 1995). Work organizations can provide further support for employees and their families by encouraging the maintenance of strong marriages or intimate partnerships

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(Orthner, 2009), an area that the military has been targeting through initiatives such as the Army's Strong Bonds program which provides relationship skills training to service members and their spouse or intimate partner. Military leaders can also help MEBEs and NDFFs sustain themselves during deployments by providing timely information about the service member and his or her unit in order to prevent rumors and additional worry and stress (Black, 1993; Demers, 2009; Department of Defense Task Force on Mental Health, 2007).

Summary

Since the wars in Iraq and Afghanistan started, 1.9 million U.S. military service members have deployed to these conflicts (Institute of Medicine, 2010). Around 40% have deployed more than once. The operational tempo of these conflicts is such that deployments are lasting as long as 18 months with shorter and shorter rest periods between deployments. The toll that military service in the current conflicts has taken on the service members themselves has been widely documented. And, while a relatively robust literature exists on the experience of military deployments for the spouses, or MEBEs, of service members, less is known of the experience of the larger network of loved ones such as parents, siblings, grandparents, aunts and uncles, friends and neighbors, the NDFFs. This leaves a wide gap in the literature.

One exploratory study of NDFFs indicated that multiple stressors affect this group and that they experience significant challenges in finding support services to meet their needs (Demers, 2009). As to the latter, federal military institutions (namely the DoD and the VA) define the service member's *loved ones* as his or her family and they define *family* as legal spouse and dependent children, or MEBEs (Institute of Medicine, 2010). This definition excludes partners, boyfriends, girlfriends, fiancé/es, parents, siblings, grandparents, friends and other non-kin, all of whom are collectively referred to in this report as NDFFs. Likewise, the so-

called Don't Ask Don't Tell policy prevents these same institutions from recognizing the legally married same-sex spouse of a service member. This means that NDFFs of unmarried service members and legally married LGBT service members are ineligible for services provided by the DoD and VA and have difficulty accessing information about the service member (Department of Defense Task Force on Mental Health, 2007). Importantly, the current literature on MEBEs and NDFFs' experiences paints a complex picture of chronic stress alongside personal growth, adaptive coping alongside impaired mental and physical well-being, resiliency and resourcefulness alongside gaps in services.

Using the dual lenses of stress process theory and ecological theory, this study aimed to capture the complexity of experience for the NDFFs of those who have deployed to the current conflicts. Stress process theory provides a definitional framework for the concept of stress. The theory understands that: stress is a larger process that operates in relationship with a person's environment; people in similar situations will not necessarily face the same stressors; and, similarly, those who experience the same stressors may not do so with similar intensity (Pearlin, 1999). That stress process theory and ecological theory inhabit common ground in their acknowledging the existence of differential impact of similar experiences across populations lent their dual use to the goals of this study. Indeed, ecological theory helps explain this differential impact through its focus on the "community embeddedness of persons and the nature of communities themselves" (Trickett, 1984, p. 265). Known in social work as the person-in-environment perspective, concepts of ecological theory provide structure for addressing issues on multiple levels such as individual, family, small group, and larger society and accommodate both micro (clinical) and macro (policy and advocacy) interventions (Pardeck, 1996; Munger, 2000; Trickett, 1984; Moos, 2001).

Notably, though the current active duty force is split 50/50 in terms of marital status, research on the impact of the deployment experience, coping, and needs of NDFFs of unmarried service members and married LGBT service members is sparse. Given this gap in the literature, this study targeted NDFFs of unmarried service members and married LGBT service members who have deployed at least once to Iraq or Afghanistan. In this way, the study methods aimed to identify and understand (a) the impact on participants of having a loved one deploy to Iraq or Afghanistan, (b) how NDFFs have coped with this experience, and (c) their perceived needs for services, resources and other supports.

In the following chapter, the methodology for this study will be discussed. Included in this discussion will be (a) an explanation of the study's research design; (b) a description of the sample together with the inclusion criteria, exclusion criteria, and sample size; (c) an account of the recruitment procedures as well as ethics and safeguards, including the risks, benefits, and voluntary nature of participation, precautions taken to safeguard information, and human subjects review board approval; (d) a description of the screening process, informed consent procedures, and the survey instrument; (e) an explanation of the data analysis process; and (f) a discussion of the strengths and limitations of the methodology.

Chapter III

Methodology

The goal of this exploratory study was to add to our knowledge about the impact of having a valued friend or family member deployed to war. Specifically, the study aimed to survey the loved ones of unmarried service members and married LGBT service members who have deployed to the wars in Iraq or Afghanistan. There is a substantial and growing literature documenting the impact of deployments, coping strategies, and needs of spouses and dependent children of married service members, but little is known relative to loved ones of unmarried and married LGBT service members. In part, this gap has to do with official definitions of *family* and the implications for those who fall outside of this definition.

The federal military institutions—namely the Department of Defense (DoD) and the Veterans Administration (VA)—essentially define the service member's *loved ones* as his or her family; these institutions define *family* as legal spouse and dependent children (Institute of Medicine, 2010). In this report, those in the subset of loved ones that includes a service member's legal spouse and dependent children will be referred to as *military-endorsed benefit-eligible* (MEBE).

In essence, under the federal military institutions' definition, people who might be recognized by the general public as family such as partners, boyfriends, girlfriends, fiancé/es, parents, siblings, adult children and grandparents (not to mention friends and other non-kin) are excluded. Likewise, under the so-called Don't Ask Don't Tell policy which prevented gay and lesbian men and women from serving openly in the U.S. Armed Services, the legally married

same-sex spouse of a service member would also not be recognized by these institutions. Even with the recent steps to repeal this policy, the Defense of Marriage Act bars same-sex spouses of military service members from receiving benefits and other legal statuses and rights that opposite-sex spouses receive. For this study, those falling into a second subset of loved ones will be referred to as *nondependent family or friend* (NDFF). This group includes nondependent family of service members such as parents, siblings, adult children, and the larger extended family network; same-sex spouses of LGBT service members; nonmarried significant others; and other non-kin such as friends, neighbors, and co-workers.

In summary, the study's target population was NDFFs of unmarried service members and married LGBT service members who had deployed at least once to Iraq or Afghanistan. The study was designed to address the following research question: among those who identify as impacted by the war-time military deployment of a valued friend or family member, what is the impact of this experience, how do they cope, and what are their resource needs?

It is useful to continue to articulate some operational definitions in advance in order to lend clarity to the research plan. As such, important terms relating to areas of the design such as sample selection criteria and the nature and purpose of the research question will be defined.

For this study, *service in the military* includes active duty component (full-time service) and reserve component (part-time service, for instance, in the National Guard or Reserves) in any of branch of the U.S. Armed Services (i.e., Army, Navy, Marine Corps, Air Force, or Coast Guard). This definition does not make distinctions among experiences during service (e.g., overseas deployments, deployments to combat zones, or hazardous duty).

Likewise, someone who has *deployed to the current conflicts* includes those military service members who have been sent to Iraq and/or Afghanistan on official military orders in

support of Operation Iraqi Freedom (OIF) and/or Operation Enduring Freedom (OEF), that is, the war in Afghanistan.

Finally, in the general lexicon, the term *service member* indicates someone currently in active status with the military—either on an active duty (that is, full-time) or reserve (part-time, on-call) basis. On the other hand, a *veteran* is normally understood to be someone who has served in the military and is currently not in active status. This study aims to explore the experiences of NDFFs of those who have deployed to Iraq or Afghanistan since these conflicts began and so the distinction between the two terms is less clear and less important for this study. The term service member was used throughout the study's recruitment materials and survey instrument and, in keeping with the exploratory research design, no precise definition of the term was provided; instead, participants were allowed to self-define the term. The term service member will be used throughout this report, though the definition is similarly vague and intended to include both those traditionally thought of as service members and as veterans.

Research that adds to our knowledge about the cumulative impact of deployments to the current wars on the NDFFs of unmarried service members and married LGBT service members will help inform and direct practice with this population, specifically in terms of targeted outreach; will inform and direct further research; and will inform and direct policy, specifically relating to the organization of systems for communication, provision of health and mental health care, and training and education of clinicians.

Research Design

This study employed a mixed methods exploratory design with a nonprobability purposive sample. The study incorporated both quantitative and qualitative data to allow for depth and breadth of information in order to gain better understanding of the questions being

explored. This choice of design reflects the fact that little research exists on the experiences of NDFFs of unmarried service members or married LGBT service members who have deployed to the current conflicts, nor the impact upon them of such experiences, their coping strategies, or their needs.

A general examination of the phenomena—traditionally captured through qualitative research design—was an appropriate place to begin in order to take the broadest view possible and capture all potential nuances in the experiences of this population (Rubin & Babbie, 2010). At the same time, however, personal experience of the researcher and consultation with experts working with and researching this population indicated that finding a large enough sample, even for a purely qualitative study, would have serious challenges. A quantitative research design would allow the use of online surveying technology and online social networking recruitment methods, two design features that showed promise for finding an adequate sample, based on consultations with experts in social work research. For these reasons, a mixed methods design, which allowed the flexibility to combine the strengths of qualitative and quantitative research designs, seemed a good fit.

Further, this study's research focus on impact, coping, and needs assessment within an ecological framework was quite complex. Those studying stress, coping, and their relationship have suggested that research in this area has historically failed to integrate the impact of a person's environment on outcomes and that an integrative approach that combines qualitative and quantitative methods can facilitate understanding of these concepts, their intersections, and their interrelationships (Tashakkori et al., 2010). Mixed methods research designs are not without downsides, however. For example, a mixed methods design requires extensive and varied data collection, analysis of both narrative and numeric data is time-consuming, and the

researcher must be familiar with both quantitative and qualitative research techniques (Creswell, 2009).

In addition to the choice of methods in a research design is the choice of strategy. The strategy determines the order in which the essential procedures of the design are carried out (Creswell, 2009). This study's design employed the concurrent embedded strategy. The concurrent embedded strategy of mixed methods design uses one data collection phase to collect quantitative and qualitative data simultaneously (Creswell, 2009). This strategy identifies a primary method that drives the procedure and a secondary method that supplements and supports the process and is embedded within the primary method. In the case of this study's design strategy, the quantitative method was primary and the qualitative method embedded within it. The qualitative data stood separately from the quantitative data though the data sets certainly related to each other and, together, provided a composite view of the research problem. Like the decision to use a mixed methods design, the choice of this particular strategy allowed the study to gain a broader perspective while also addressing the practicalities of time and ability as they related to the design, approval, recruitment, data collection and analysis processes of the project.

Sample

Inclusion criteria. Eligibility to participate in the study was determined on the basis of eight possible screening questions (Appendix F). Eligibility criteria required that individuals: (a) were 18 years of age or older, (b) were able to read and write in English, (c) identified as impacted by someone else's military service, (d) resided in the United States (including Puerto Rico and the District of Columbia) at the time of study enrollment, and (e) were not a member of the U.S. Armed Services at the time of enrollment. A subset of the eligibility criteria pertained to the service member whose service had impacted the potential participant. This service

member: (a) must have deployed at least once to Iraq and/or Afghanistan, and (b) at the time of enrollment must have been unmarried (i.e., divorced, separated, widowed or single/never married) or in a marriage that is not recognized by the U.S. Armed Forces because of the Don't Ask Don't Tell policy.

Exclusion criteria. Those not meeting inclusion criteria were excluded from participating. Specifically, anyone who was a member of the U.S. Armed Services at the time of screening for the study was not eligible to participate.

Sample size. Forty-eight potential participants visited the survey and attempted the screening questions. Twenty-five of these 48 met the eligibility requirements for participation as determined by their answers to the initial screening questions (Appendix F). Twenty-three potential participants were ineligible to participate based on their answers to the screening questions: (a) one potential participant was excluded due to not residing in the United States; (b) two were excluded due to being members of the U.S. Armed Forces; (c) four were excluded because they indicated they had not been impacted by another person's military service; (d) three were excluded because the service member whose service had impacted them had never deployed to Iraq or Afghanistan; and (e) 12 were excluded because the service member was married and his or her marriage was not affected by the Don't Ask Don't Tell Policy.

Of the 25 potential participants (52.1%) who passed all of the screening questions, three did not agree to the informed consent and were, thus, not eligible to respond to the survey. In total, 22 participants (45.8%) passed all of the screening questions, agreed to the informed consent and responded to at least part of the survey. Of these, 12 (25%) continued the survey to the end. However, data from the 22 participants who responded to the survey in some part was useable for presenting the findings of this study. Of the 22 participants whose responses were

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analyzed in this study, 20 accessed the survey by way of the Facebook recruitment method and two retrieved the survey through the e-mail recruitment method.

Recruitment Procedures

A nonprobability purposive (snowball) technique was used to recruit individuals age 18 years or older who volunteered to participate after reviewing the study's informed consent. Each participant was asked to complete a five-part online survey that included open-ended questions as well as two previously validated multiple-choice questionnaires.

Recruitment was carried out using two advertising sources simultaneously to disperse study fliers to potential participants: (a) social networking (Facebook) and (b) three members of the researcher's social network used e-mail to advertise the survey to their personal contacts. The recruitment fliers for dispersion via Facebook (Appendix E) and e-mail (Appendix D) differed slightly in appearance, but both provided a description of the purpose of the study and how data would be used, listed inclusion criteria, and gave a brief identification of the researcher. The survey fliers and the Facebook page post (Appendix A) included several photos of service members with family and friends which were accessed through DefenseImagery.mil, a U.S. government website maintained by the Defense Visual Information (DVI) Directorate, a Federal organization that "develops policy, guidelines, procedures and programs that support Department of Defense (DoD) objectives and operations" (DVI, About Us). These photos were used in accordance with this website's Terms and Conditions which indicate that photos provided on this site are considered part of the public domain (DVI, Terms & Conditions) and the photos were attributed when possible.

The process for advertising the study through Facebook proceeded as such. The researcher posted on her Facebook page (Appendix A) on March 2, 2011 a link to the

SurveyMonkey survey, the opening screen of which was the study recruitment flier (Appendix E). From this Facebook post, the researcher invited others in her Facebook network to assist with recruitment (Appendix B) by sharing her post with those in their own Facebook networks by posting it onto their own Facebook profile using the 'Share' button. This way, the link to the study information was disseminated (snowball) to others on Facebook. The researcher re-posted this same post on her Facebook page for the length of the data collection phase from March 2, 2011 through April 14, 2011. Further, in the electronic survey itself, each page contained a link providing the participant the opportunity to share the survey with others in his or her Facebook network by posting the survey to his or her own Facebook profile.

At the same time, the survey flier (Appendix D) was distributed via e-mail (Appendix C). This strategy involved three members of the researcher's personal social network who indicated willingness to help disseminate via e-mail the recruitment message and flier to their personal contacts. These three individuals understood that they should not participate in the study themselves.

In planning the recruitment strategy, the researcher consulted informally with several experts in the field with regard to participant recruitment feasibility issues. These consultations produced a positive picture of the feasibility for recruitment of this population using social networking and e-mail as advertising sources. Specifically, it was recommended that the researcher disclose to potential participants the fact that she is the sibling of a service member as, it was explained, this aspect of the researcher's identity was an important asset when it came to recruitment. One expert explained that the study's target population could be difficult to locate and, further, hard to engage due to a wariness of voyeurism; however, if potential participants knew that the researcher was "one of them" they likely would be more apt to participate (J.

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Darwin, personal communication, January 24, 2011). The researcher incorporated these recommendations into the recruitment strategy by identifying herself as a military sibling in survey fliers. Finally, several of those consulted offered to actively assist with recruitment by sharing the profile post on their own Facebook pages. These offers, along with the disclosure of the researcher's status as a military sibling, strengthened the recruitment strategy and grew the pool of possible participants.

Human Subject Review Board (HSRB) approval was received on March 1, 2011 and recruitment began immediately. Recruitment and data collection lasted six weeks, from March 2, 2011 through April 14, 2011.

Ethics and Safeguards

Risks of participation. It was possible that participants could experience distress as a result of thinking about their experiences of having a loved one on deployment. Though the study did not ask questions of participants regarding traumatic experiences per se, it was possible that the process could bring up depression or anxiety around the impact on him or her of deployment. Participants' identities and answers to survey questions were kept anonymous as the survey was configured to not collect participants' names, e-mail addresses or IP addresses. Further, participants were advised not to include identifying information in their written responses to open-ended questions. The fact that a person had taken the survey was confidential as well. It was possible, however, that as a result of sharing the study flier or survey link as participants were invited to do, others might wonder as to whether the person had indeed participated in the survey him or herself.

All participants received as an attachment to the informed consent form a list of three nationwide referral sources that anyone may access (i.e., resources that are not restricted by

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payment or insurance) including one resource, Give an Hour, whose target population overlaps

closely with that of this study. Toll free phone numbers, websites, and TTY telephone numbers

were provided for each referral source, as applicable. A copy of the informed consent document

including the list of referral sources is provided in Appendix H.

Benefits of participation. Participants may have benefitted by having had the

opportunity to reflect about their experiences through gaining new perspectives. Participants

may also have benefitted insofar as the goal of this research was to contribute to improved

clinical practice methods, increased access to services, and informed policy relevant to the

population of which they are a part. It was also the goal of this study to help to advance further

research about this population.

Voluntary nature of participation. Participation was voluntary and participants were

able to end the survey early. Aside from the opening screening questions, participants were able

to choose not to answer any question in the survey simply by skipping it. Because of the

anonymous nature of participation in this survey, it was impossible for participants to withdraw

from this study once their survey materials had been submitted as it would not have been

possible to identify a participant's materials.

Informed consent procedures. A copy of the Informed Consent can be found in

Appendix H and is discussed in further detail in the Data Collection section of this chapter.

Precautions taken to safeguard confidential and identifiable information. The

research design and methods aimed to protect to the greatest extent possible participants'

confidentiality, including their identities and answers to survey questions. The survey was

constructed in SurveyMonkey and disseminated using this product's "Facebook Collector" and

"Web Link Collector." The researcher configured the survey's settings such that participants

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accessed the survey and their answers were gathered without tracking names, e-mail addresses or IP addresses. Also, participants were explicitly advised both in the informed consent as well as in the survey instructions to refrain from incorporating identifying data into any of their narrative (i.e., typed) answers. In this way, participants' identities and survey answers remained anonymous, including to the researcher.

In the survey settings, Secure Sockets Layer (SSL) encryption was enabled. SSL encryption technology "protects respondent information using both server authentication and data encryption, ensuring that user data is safe, secure, and available only to authorized persons as it moves along communication pathways between the respondent's computer and SurveyMonkey servers" (SurveyMonkey, 2010). Further, SurveyMonkey is "hosted in a secure data center environment that uses a firewall, intrusion detection systems, and other advanced technology to prevent interference or access from outside intruders. The data center is a highly protected environment with several levels of physical access security and 24-hour surveillance" (SurveyMonkey, 2010).

Participants' responses were associated with a code number automatically generated by SurveyMonkey. Data analysis was performed by the researcher, with consultation from the research advisor and other Smith College School for Social Work faculty and staff. The research advisor had access to the data after any possible identifying information (e.g., if a participant were to have written identifying information in any of the narrative opportunities) had been removed. Published data disguises participant identities by presenting demographic data in summarized form.

Electronically stored data was stored on encrypted, password-protected media. The computer storing data had password-protection such that only the researcher has access to

computer. This computer also has antivirus and antispyware software meeting Federal

government standards for protection of electronic data. All data will be kept secure for three

years as required by Federal regulations. After that time, they will be destroyed or continue to be

kept secured as long as the researcher needs them for research purposes. When no longer needed,

data will be destroyed.

Human subjects review board. The Human Subject Review Board (HSRB) at Smith

College School for Social Work approved this study after assuring that all materials met Federal

and college standards for protection of human subjects. A copy of the HSRB's approval letter is

provided in Appendix K.

Data Collection

Overview. The data collection instrument was a five-part online survey that included

open-ended questions, two previously validated multiple-choice questionnaires, and three

questionnaires developed by the researcher.   In the first section, participants provided

demographic information about the service member. Sections two and three incorporated the use

of two previously validated scales measuring dimensions of stress and coping.

The first instrument was a 10-item global measure of perceived stress called the

Perceived Stress Scale (PSS; Cohen & Williamson, 1988).   The second instrument was a 13-

item reduced form of the Coping Self-Efficacy Scale (CSES) developed by Chesney, Neilands,

Chambers, Taylor & Folkman (2006). In the fourth section of the survey, questions were

designed to determine participants' needs for services, resources, and other supports. In

addition, this section explored potential barriers to access and access-facilitating factors by

asking participants questions about their values and preferences. In the fifth and final section of

the survey, participants provided demographic information about themselves.

Screening process. Potential participants who accessed the survey flier either through Facebook or e-mail distribution were routed to the SurveyMonkey site which hosted the study instrument. The opening screen was a copy of the recruitment flier which provided a brief introduction to the researcher, a description of the purpose of the study and how this research would be used, and listed inclusion criteria.

If a potential participant chose to access the online survey by clicking 'next', they were presented with the first of eight possible screening questions (Appendix F) that would verify that they met selection criteria. The screening questions, in order, were:

1. "Are you 18 years of age or older?"

2. "Are you able to read and write in English?"

3. "Do you currently reside in the United States?"

4. "Are you currently a member of the U.S. Armed Services?"

5. "Have you been impacted by someone else's military service?"

The remaining screening questions and corresponding inclusion criteria pertained to the service member whose service had impacted the potential participant:

6. "Has this service member deployed at least once to Iraq or Afghanistan?"

7. "Is this service member's current marital status single?"

If a potential participant answered "no" to question 1, 2, 3, 5, or 6 or "yes" to question 4, the survey directed them to a screen (Appendix G) where they were informed that they were not eligible to participate, thanked for their interest, and invited to share the survey with anyone else they knew who might be interested and eligible. If a potential participant answered "no" to question 7, they were asked an additional question:

8. Does the so-called Don't Ask Don't Tell policy prevent this service member's marriage from being recognized by the U.S. military?

A "no" response to question 8 directed the respondent to the ineligibility screen (Appendix G); a "yes" response allowed the potential participant to continue.

A potential participant met all of the inclusion criteria if they answered "yes" to questions 1, 2, 3, 5, and 6; "no" to question 4; and either "yes" to question 7 or a combination of "no" to question 7 and "yes" to question 8. If a respondent met the inclusion criteria they advanced to a screen in the survey that indicated that they qualified to participate based on their answers to the screening questions. This same screen presented the respondent with the informed consent document (Appendix H).

Informed consent procedures. Ensuring that individuals were fully informed about the research study and their participation in it was a critical component of the research design. Potential participants meeting inclusion criteria were next presented with the informed consent letter (Appendix H). This document was also linked to the survey through embedded HTML code so that when the participant clicked on the link in the survey, the document opened in a new window as a web document (Appendix I). This way, participants could save or print the informed consent document for future reference. Participants read the information provided in the letter, including information about three nationwide referral sources for mental health services, should they decide to access these services after completing the survey.

Once participants reviewed the informed consent letter, including referral source information, they indicated their consent electronically. Respondents who indicated consent by marking a box labeled "I agree" were allowed access to the first question of the actual survey. Those who indicated "I DO NOT agree" were automatically routed to an end screen (Appendix

G) and, thus, prevented from accessing the survey. At the end screen they were informed that they were ineligible to participate, thanked for their interest and invited to share the survey with anyone else they knew who might be interested and qualified to participate.

SurveyMonkey settings were enabled that prohibited participants from going back to previous parts of the survey. Likewise, due to limitations of the survey software, participants were not allowed the opportunity to review their answers. This research study was intended to interview adults 18 years of age and older who were English-speaking. Thus, it was not necessary to obtain parental or guardian consents, nor to provide a copy of the forms in translation.

Survey instrument.

Overview. The official survey (Appendix J) continued in online format and included open-ended and multiple-choice questions in five areas: (a) nonidentifying demographic data about the service member, (b) data measuring the impact on participants of having a loved one go on deployment to Iraq or Afghanistan, (c) data on how participants coped with this experience, (d) data about participants' needs for services, resources and other supports to help them with this experience, and (e) nonidentifying demographic data about the participant. Participation was voluntary and participants were able to end the survey early. Further, aside from the opening screening questions, participants were able to choose not to answer any question in the survey simply by skipping it.

If a participant continued the survey until the end, they reached a screen where they were informed that their responses would be submitted when they clicked "submit." After clicking submit, the participant advanced to a final screen where they were thanked for their time and

interest, and were invited to share the study information (i.e., the flier and/or survey link) with others who might be interested and eligible to participate.

Completing the entire survey took 20 to 30 minutes on average, including the screening and informed consent procedures. This figure was based on several timed test runs of the draft survey. The burden placed upon participants was kept to the minimum necessary to meet the needs of the project. The researcher used SurveyMonkey features in the survey instruments that helped to reduce the burden on the participant: "question logic" and "page logic" features allowed participants to skip past certain questions or pages that did not apply to them, based on their responses to previous questions.

Demographic data – service members. In the first section of the survey, participants provided demographic information about the service member. Data collected about the service member included: military branch (i.e., Army, Navy, Air Force, Marine Corps, or Coast Guard), military rank, total length of military service, age, gender, total number of deployments to Iraq and/or Afghanistan, nature of the participant's connection to the service member (e.g., sibling, grandparent, co-worker, neighbor, roommate, partner), length of time participant has known the service member, length of time since return from most recent deployment, and whether the participant and the service member lived in the same household at the time of survey enrollment.

Quantitative measures.

Perceived stress scale. In the second section, participants responded to the 10-item Perceived Stress Scale (PSS-10; Cohen & Williamson, 1988). The PSS is an instrument "designed to measure the degree to which situations in one's life are appraised as stressful" (Cohen, Kamarck & Mermelstein, 1983, p. 386). Items on the PSS "tap how unpredictable, uncontrollable, and overloaded respondents find their lives" (Cohen & Williamson, 1988, p. 34)

and assess how much stress a person perceives in his or her life in general rather than related to a specific stressor. Questions ask about the frequency with which participants have experienced stress-related thoughts and feelings in the past month. Responses are based on a 5-point Likert scale from 0 (*never*) to 4 (*very often*). The PSS produces an overall score produced by reversing the answers to four of the 10 questions and then summing them. The PSS is not a diagnostic instruments so there are no score cut-offs. Rather comparisons can be made among the scores of participants in this and other studies.

The PSS was designed for use in community samples with a junior high school education or above (Cohen & Williamson, 1988). It is sensitive to "stress resulting from events occurring in the lives of friends and relatives, and to expectations concerning future events" (Cohen & Williamson, 1988). The scale's creators were informed by an ecological perspective where stress, coping, and outcomes are dependent upon the transactions between a person and his or her environment. Further, this scale was used in published studies of MEBE populations (for instance, Warner et al., 2009; Padden et al., 2011). Likewise, normative data has been published using the PSS in large community samples (for instance, Cohen & Williamson, 1988; Cohen et al., 1983).

The PSS-10 has been shown to have good internal reliability (Cronbach's alpha coefficient=.78) and construct validity (Cohen & Williamson, 1988). According to Dr. Cohen's website, specific permission to use the PSS is not necessary when it is being used for "academic research or educational purposes" (Laboratory for the Study of Stress, Immunity and Disease, 2011). See Appendix L for a copy of the scale, scoring instructions, and permissions for the PSS.

Coping self-efficacy scale. Section three included the 13-item reduced form of the Coping Self-Efficacy Scale (CSES) developed by Chesney, Neilands, Chambers, Taylor and Folkman (2006). The CSES scale measures "one's confidence in performing coping behaviors when faced with life challenges" (Chesney et al., 2006, p. 421). The CSES is grounded in Lazarus and Folkman's stress and coping theory (1984) which understands stress and coping in the context of transactions between a person and his or her environment. Respondents were asked "When things aren't going well for you, or when you're having problems, how confident or certain are you that you can do the following:_____?" They used an 11-point scale with anchor points 0 (*cannot do at all*), 5 (*moderately certain can do*), and 10 (*certain can do*), to describe the extent to which they believed they could perform various coping skills. The CSES is provided by the Center for AIDS Preventions Studies (2011) at no cost to researchers for use, adaptation, and modification.

The CSES produces an overall score by summing the item ratings. Respondents must have answered at least 80% of the scale items; once this threshold was reached missing items are estimated by taking a mean for the items answered and adding this mean for each skipped item. The resulting score was known as a "corrected sum."

The CSES' psychometric properties have been tested in two clinical trials of an intervention aimed to decrease psychological distress and improve mood in a sample (N=348) of men coping with chronic illness. Exploratory and confirmatory factor analyses of the CSES indicated three distinct factors: "use problem-focused coping," "stop unpleasant emotions and thoughts," and "get support from friends and family" (Chesney et al., 2006). Sub-scores for each of these three factors can be calculated. Cronbach's internal consistency coefficient alpha for the CSES was strong, ranging from .80 on "get support from friends and family" to .91 for the

remaining two derived factors (Chesney et al., 2006). Likewise, internal validity and reliability was strong for all three derived factors. Limitations of this study were that the sample was relatively small, self-selected, and comprised of only men positive for HIV. Generalizability is limited for populations including women, and healthy people. See Appendix M for a copy of the scale and its scoring instructions.

Questionnaires. In the second section, the Deployment Impact (DI) questionnaire (Keyes, 2011b) asked participants to consider how the experience of having a loved one deploy to the current conflicts affected them in the following domains: stress level, sleep, self-esteem, mood, physical health, mental health, relationship to the service member, personal relationships in general, work performance, finances, legal issues, and how the participant communicates with others. These categories were identified through a review of literature on the population of interest (see Chapter II). Participants rated the effect in each of these domains using a 5-point Likert scale from 1 (*very negative*) to 5 (*very positive*) or *N/A*.

In section three, the Deployment Coping Methods (DCM) questionnaire (Keyes, 2011a) asked participants about coping strategies they have used in the deployment experience, choosing all applicable possibilities from a list of coping strategies. This list was derived from the literature and from informal discussions with loved ones of service members who this researcher knows personally.

The fourth section of the survey contained the Military Loved Ones Needs Assessment (MLONA; Keyes, 2011c), a tool made up of three multiple choice questions designed to determine participants' needs for services, resources, and other supports as well as barriers to access and access-facilitating factors. All three questions were formulated based on the literature (see Chapter II). First, participants rated, on a 5-point scale from 1 (*very unlikely*) to 5 (*very*

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likely), the likelihood they would use 19 different services, resources, and other supports to help them with this experience. Second, participants were presented with a list of eight factors oft-cited in the literature as having influenced decisions about accessing services, resources, and other supports. Respondents rated, using a 5-point scale from 1 (*not important*) to 5 (*extremely important*), the hypothetical importance to them of each factor in making similar decisions. Third, participants were presented with a list of 10 phrases describing attitudes, preferences, and values toward accessing services, resources, and other supports. They used a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*) to indicate the degree to which these phrases described their own values and preferences in this regard.

Qualitative measures. The final question in the second, third, and fourth sections of the survey offered respondents the opportunity to provide additional information in response to variations on the open-ended question: "What else would you like mental health workers, policy makers, and social service administrators to know about _____? Please provide examples, if possible." The specific topic that respondents commented upon corresponded to each section: "how this experience has impacted you," "how you cope with this experience," and "your needs for resources, services, and other supports" for sections two, three, and four of the survey, respectively.

Demographic data – participants. In the fifth and final section of the survey, participants provided demographic information about themselves including age, marital status, gender, race/ethnicity, and highest level of education attained.

Data Analysis

Responses were examined to explore: (a) the impact on participants of having a loved one deploy to Iraq or Afghanistan, (b) how they have coped with this experience, and (c) their

perceived needs for services, resources and other supports to help them with this experience. At the end of data collection, survey data were downloaded, carefully checked for identifying information and errors, and analyzed. Each respondent was given a unique identifier and demographic, quantitative, and qualitative data were coded and organized.

Demographic data. Demographic data for the service member and for the participant were analyzed using descriptive statistics with the help of the statistical consultant. Summary level details were derived, such as measures of central tendency, multiple response analysis and frequency distributions.

Data such as military branch, service member's gender, participant's gender, nature of participant's connection to service member, participant's marital status, participant's highest level of education, and whether the participant and the service member live in the same household were described using frequency distribution. Military rank, total length of military service, age of service member, age of participant, total number of deployments to Iraq and/or Afghanistan, length of time participant has known the service member, and length of time since return from most recent deployment were described using measures of central tendency as well as frequency distributions. Finally, the participant's race/ethnicity was described using multiple response analysis.

Quantitative data. Responses to the PSS-10 (Appendix L) and CSES (Appendix M) were scored using scoring rubrics specific to each scale. Individual scores for the PSS-10 were compared to normative data from two previous studies using the same instrument: one with a large, civilian community sample (Cohen & Williamson, 1988) and another with a sample of 105 spouses of service members (Padden et al., 2011). T-tests were run to determine whether

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differences existed between scores on the PSS-10 two other variables. A Pearson correlation was run to test for association between PSS-10 scores and overall CSES scores.

Data derived from the DI (Keyes, 2011b), DCM (Keyes, 2011a), and MLONA (Keyes, 2011c) questionnaires were analyzed using descriptive statistics with the help of the statistical consultant. Summary level details were derived such as measures of central tendency, multiple response analysis and frequency distributions.

Qualitative data. Qualitative data from open-ended questions were analyzed using inductive logic in several forms. Throughout this process, the researcher kept careful, detailed notes of the process for defining codes, preliminary observations about connections between data, ties to theory, and other thoughts. A qualitative content analysis was performed to identify phenomena in the data (e.g., participants reporting differences between their experiences, coping strategies, and needs) and describe the frequency of such phenomena in the sample.

Qualitative content analysis uses a structured, step-by-step process that incorporates inductive methods in order to identify themes, categories, and underlying ideas (Vonk, Tripodi & Epstein, 2006). First, a thematic analysis was conducted using an open coding process in which categories for organizing the data were determined by closely examining the narrative data itself (Rubin & Babbie, 2010). The researcher read through all of the narrative responses and then began to identify themes or ideas in order to "provide a framework for meaningful division of the information" (Vonk et al., 2006, p. 139). Loftland suggests six categories of patterns in data: frequencies, magnitudes, structures, processes, causes, and consequences (as cited in Rubin & Babbie, 2010). The researcher used these categories as a framework as she began to examine patterns in the data. Close attention was also paid to data that seemed to fall outside of popular patterns or categories.

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Second, the researcher reviewed the responses phrase-by-phrase and assigned each phrase to a theme. This sometimes required reworking the original categories. Third, the researcher took the phrases within each theme and came up with ways to further categorize them into sub-ideas within each theme. This process was repeated until the point where "no additional codes [were] needed to capture the participants' experiences and meanings" (Drisko, 1997, p. 193). Fourth, the researcher calculated frequencies of the responses within each theme. Finally, narrative passages were selected to illustrate the themes identified in the data and the passages were included in Chapter IV.

Strengths and Limitations of the Methods

Strengths. A primary aim of the study was to develop and pilot a methodology for looking at this complex set of issues. In this regard, the study was innovative and successful. The methodology that was piloted in this study was based on a thorough review of relevant literature, made use of standardized measurement tools where available, and pioneered social networking media as a recruitment tool.

As discussed previously in this chapter, the choice of mixed methods design with a concurrent embedded strategy allowed for a larger sample of participants through the use of online social networking and e-mail to recruit participants. Further, social networking and e-mail made snowball dissemination of the survey flier convenient. Indeed, 77 members of the researcher's Facebook network re-posted the link to the survey on their own Facebook profiles and, thus, shared the link with countless others in their networks. Including e-mail dissemination in the recruitment strategy allowed for the inclusion in the pool of participants those who did not have a Facebook account but did use e-mail.

Another possible strength of the research design was the fact that it was anonymous and could be completed privately without interaction with the researcher. The rigor of the mixed methods design was increased as well through the use of two previously validated instruments, the PSS and the CSES.

Limitations.

General. Because of the anonymous nature of the data, and the online data collection strategy, it was not possible to ask follow-up questions of participants or to clarify questions that participants might have had. Nor was it possible to gather feedback as to unexplained phenomena that manifest in the data such as the fact that several participants exited the survey without finishing or that, despite efforts to recruit NDFFs of married LGBT service members, no such individuals participated in the survey.

The methodology also had a certain amount of subjectivity. For instance, qualitative, narrative data is inherently subjective. Likewise, interpreting and analyzing these narratives also involved subjectivity.

The study's findings are of limited generalizability due to the small sample size, the fact that sampling was nonrandomized, and the existence of selection bias in the recruitment methods. However, generalizability and statistical significance of findings were not the goals of this study.

Methodological bias. The study's methodology had bias. First, selection bias was generated by the fact that the sample for this study was relatively small in size and nonrandomized. Further, only those with access to a computer with internet, who were able to navigate SurveyMonkey, and who could read and write in English could participate.

In addition, given the multiple references in the literature to expectations in military culture that spouses uphold military values like self-sacrifice and courage (for example, Black, 1993; Eaton et al., 2008; Warner et al., 2009; Davis et al., 2011; Figley, 1993), these must be considered potential values of NDFFs as well. If this is indeed the case, then measurement bias in the form of social desirability bias could have been expected on the part of the participants who may have been influenced to convey a favorable opinion of themselves, their relationships with significant people in their lives, and their ability to cope with the demands of deployment. The research design attempted to mediate this form of bias by clarifying in the informed consent and survey instructions that the survey was anonymous, so neither the names, e-mail addresses, nor the IP addresses of participants were known.

Personal bias of researcher.

Insider researcher. Literature on the process of research has identified the insider researcher, someone who conducts research with communities of which one identifies as a member (for example, Kanuha, 2000). Although the researcher has never served in the military, she is the sibling of an unmarried military service member who has deployed to Iraq and Afghanistan. Considering this identity, the researcher was an insider researcher in terms of the conduct of this study.

Kanuha (2000) writes about her experience as an insider researcher and notes a number of "complex and interrelated reasons that [she] was drawn to study '[her] own kind'" (p. 441). The researcher found similarly complex and interrelated aspects of her own identity drew her to this research. The first aspect was her own life experience, specifically of attempting to support her brother and herself over the course of his deployments, while finding herself outside the definition of military family. Second, as a researcher, she wanted to find out whether and what

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those in similar situations have experienced. Third, as a social worker, she hoped to be able to help those similarly-placed loved ones of service members to find resources and recognition and to ease the struggle of coping with stressors inherent to the circumstances.

The researcher was aware that her experience biased her approach to this study. Kanuha (2000) points out that "the need to separate [her] own experiences and subsequent analyses from those of study participants, with [their] natural connections yet distinctive roles as researcher-researched, was the most profound methodological process [she] had to learn" (p. 442). At the same time, the researcher was also aware that her experience in no way rendered her an expert in this area, rather, as Hayano notes, "an insider's position is not necessarily an unchallengeable 'true' picture; it represents one possible perspective" (as cited in Kanuha, 2000, p. 443).

Recognizing her personal bias deriving from being a military wife conducting research on the experiences of other military wives, Davis (Davis et al., 2011) kept a journal of her "personal thoughts, feelings and values" throughout the research process in order to "potentially moderat[e] humans' tendency to select information that is congruent with their already developed schemas (Dattilio, 2005)" (p. 54). As a way of addressing her own preconceptions, the researcher conducting the instant study put an emphasis on grounding the formulation and analysis of the study in the literature (Kanuha, 2000) and observed her own responses to the research experience in discussion with colleagues.

Other aspects of researcher's identity. Other aspects of the researcher's identity, such as being a white woman, also needed to be considered as she planned, conducted, and analyzed the research. For instance, the researcher was aware of the possibility of neglecting to ask questions about certain aspects of the participants' experiences out of bias caused by her own personal experiences and identity.

Chapter IV

Findings

This was an exploratory study using a mixed methods design and concurrent embedded data collection strategy. The purpose of the research was twofold: to develop and pilot a methodology for looking at this complex set of issues, with the goal of adding to our knowledge about the impact on family and friends of having a valued friend or family member deployed to war in addressing the following research question: among those who identify as impacted by the war-time military deployment of a valued friend or family member, what is the impact of this experience, how do they cope, and what are their resource needs? The study surveyed NDFFs of unmarried service members who have deployed to the wars in Iraq or Afghanistan.

This chapter contains a summary of the major findings of the study, a demographic description of the sample, summaries of the quantitative and qualitative data, and inferential statistics. To illustrate the major findings, sample quotes from participants' narrative responses supplement descriptive summaries of the data. These quotes are taken from a total of 15 narrative responses that seven participants provided to three open-ended questions. The quotes are reproduced exactly as the participants typed them in their original responses, including the original spelling, grammar, punctuation, and word choices.

Due to the small sample size in this pilot study, the external and internal validity of the findings are not reliable and should not be read as such. However, some observations and inferences can be made for further exploration.

Major Findings

Participant responses to the study revealed ten major findings across three areas of focus: impact, coping, and needs assessment.

Impact.

- the experience of having a loved one deploy to the current conflicts impacts participants in several important domains;

- the nature of such impact is both negative and positive depending on the domain;

- participants perceive more stress in their lives than those in community samples;

Coping.

- participants' confidence in their ability to cope with life challenges is generally lower than in a similar, community sample; however, their perception of their ability to seek and use social support to cope with problems and reduce stress is higher than in similar community samples;

- there was a significant, negative, strong correlation between perceived stress and coping self-efficacy;

- a variety of mechanisms have been used by participants to cope with the deployment experience;

- the most frequently used coping mechanisms were relying on friends, staying in touch with the service member, seeking out information, keeping busy, and relying on family;

Needs assessment.

- participants offer a long "wish list" of services and resources they need, the majority of which are already available to MEBEs;

- participants are keenly interested in resources that would facilitate communication

  with the service member and opportunities for socializing, especially with others

  who are experiencing or have experienced similar situations;

- the most important barriers to access were the federal military institutions'

  definition of the family of the service member, accessibility of evening and/or

  weekend hours, travel distance from home, and time commitment; and

- several factors influence decisions to access resources including preferences to

  discuss one's problems with people who have been through similar experiences

  and/or who one knows and to solve one's problems on one's own.

Demographics

Service members. The demographic characteristics of the service members are

illustrated in Tables 1 though 7.

Table 1

Military Branch and Duty Status of Service Members (N=22)

Demographic characteristic	Frequency	Percent
Branch/duty status		
Army active duty	11	50.0
Marine Corps active duty	4	18.2
Army Reserves	2	9.1
Marine Corps Reserves	2	9.1
Army National Guard	1	4.5
Navy active duty	1	4.5
Air Force active duty	1	4.5
	22	99.9

With regard to the service member's military branch, 14 of 22 participants (63.6%)

identified as having been impacted by the military service of a member of the Army and 27.3%

(n=6) reported having been impacted by that of a member of the Marine Corps. NDFFs of

service members in the Navy and the Air Force were also among the respondents, with one response in each group endorsing having been similarly impacted.

In terms of the duty status of the service member, 17 of 22 participants (77.3%) identified as having been impacted by a military service member on active duty status; 18.2% (n=4) in the Reserves and 4.5% (n=1) in the National Guard reported similarly.

With branch and duty status combined, 50% of participants (n=11) endorsed having been impacted by a member of the active duty Army followed by active duty Marine Corps (n=4, 18.2%). NDFFs of members of the Army Reserves, Marine Corps Reserves, Army National Guard, active duty Air Force, and active duty Navy were also represented. See Table 1.

Table 2

Military Rank of Service Members (N=21)

Demographic characteristic	Frequency	Percent
Military rank		
Officer	1	4.8
Noncommissioned officer	15	71.4
Junior enlisted	5	23.8
	21	100

Fifteen of 21 respondents (71.4%) identified as having been impacted by the military service of a noncommissioned officer[2]. NDFFs of service members holding junior enlisted ranks[3] and officers represented 23.8% (n=5) and 4.8% (n=1) of the sample, respectively.

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[2] Noncommissioned officers (NCO's) are those holding ranks E-4 through E-9 who hold increasing authority and responsibility by having been promoted through the enlisted ranks (Kadis & Walls, 2006).

[3] Junior enlisted ranks are E-1 through E-3 and usually training ranks (Kadis & Walls, 2006).

Table 3

Total Length of Military Service (N=17)

Demographic characteristic	Frequency	Percent
Total length of military service (months)		
0-36	4	23.5
37-52	4	23.5
53-88	3	17.7
89-216	5	29.5
217 or more	1	5.9
	17	100.1

Seventeen of 22 (77.3%) participants provided data on the service member's total length

of service. The mean number of months of military service was 92.7, the median was 61.0

months, the standard deviation was 105.2, and the range was from 16 to 456 months.

Table 4

Total Number of Deployments (N=18)

Demographic characteristic	Frequency	Percent
Total # of deployments		
1	9	50.0
2	4	22.2
3	3	16.7
4	1	5.6
10 or more	1	5.6
	18	100.1

Eighteen of 22 participants (81.8%) responded. Respondents were split 50/50 in terms of

those whose loved ones had deployed once versus multiple times. The mean number of

deployments was 2.2 and the median 1.5 deployments, with a range from 1 to 10 deployments.

Table 5

Redeployment Status and Length of Time since Redeployed (N=18)

Demographic characteristic	Frequency	%
Service member has returned from most recent deployment		
Yes	10	55.6
No	8	44.4
	18	100
Time since return (months)		
0-2	2	11.1
3-8	2	11.1
9-24	2	11.1
25-36	2	11.1
37-48	2	11.1
Not applicable	8	44.4
	18	99.9

At the time of study enrollment, more than half (55.6%, n=10) of participants' service members had redeployed (i.e., returned home) from their most recent deployment. Among this group, the mean number of months since the service member returned home was 21.8, the median was 18.5 months, the standard deviation was 18.3, and the range was 0 to 48 months. Eight participants (44.4%) reported that their service member was currently on a deployment.

Table 6

Age and Gender of Service Members (N=18)

Demographic characteristic	Frequency	Percent
Age		
19-24	4	22.2
25-26	4	22.2
27-30	5	27.8
31-42	5	27.8
	18	100.1
Gender		
Man	17	94.4
Woman	1	5.6
	18	100

Eighteen of 22 participants (81.8%) provided the service member's age. Ages ranged

from 19 to 42 years old; the mean age of service member was 28.3 years old, and the median was

27 years old. The service members were majority men (n=17, 94.4%) and n=1 woman (5.6%).

Table 7

Participant's Relationship to Service Member (N=18)

Relationship characteristic	Frequency	Percent
Nature of connection		
Friend	7	38.9
Girlfriend/Boyfriend	4	22.2
Unmarried partner	2	11.1
Parent	2	11.1
Sibling	2	11.1
Co-worker	1	5.6
	18	100
Length of time known (years)		
1-2	5	27.8
3-4	5	27.8
5-12	3	16.7
13-35	5	27.8
	18	100.1
Service member, participant live in same household		
No	14	77.8
Yes	4	22.2
	18	100

Eighteen of 22 participants (81.8%) provided data on the nature of their connection to the

service member, the length of time they have known the service member, and whether they live

in the same household as the service member. In terms of the nature of their connection, the

modal response was "friend" n=7 (38.9%) followed by (in order of frequency):

"girlfriend/boyfriend" n=4 (22.2%), "unmarried partner" n=2 (11.1%), "parent" n=2, "sibling"

n=2, and "co-worker" n=1 (5.6%).

As regards the number of years the service member and participant had known each other

at the time of enrollment in the study, the mean was 9.9 years, the median was 4 years, the

standard deviation was 10.8, and the range was 1 to 35 years. Ten of 18 respondents (55.6%)

had known the service member 4 years or less at time of enrollment. Finally, the large majority

of service members (77.8%, n=14) did not live in same household as the participant.

       Participants. The demographic characteristics of the participants are illustrated in

Tables 8-10. Twelve of the 22 participants (54.5%) responded to 80% or more of the questions

in the participant demographics section of the survey.

Table 8

Age, Gender, and Race/Ethnicity of Participants (N=12)

Demographic characteristic	Frequency	Percent
Age		
19-21	3	25.0
22-26	3	25.0
27-31	3	25.0
32-56	3	25.0
	12	100
Gender		
Woman	11	91.7
Man	1	8.3
	12	100
Race/Ethnicity		
White	7	58.3
White, Hispanic	2	16.7
Black or African American	1	8.3
Native Hawaiian or other Pacific Islander	1	8.3
Hispanic, Latino, or Spanish Origin	1	8.3
	12	99.9

       Twelve of 22 participants (54.5%) provided data on their age, gender, and race/ethnicity.

The respondents' mean age was 31.75 years old; the median age was 27.5 years old; the modal

ages were 21, 25, and 31 years old; and the age range was 19 to 56 years old. In terms of gender,

n=11 (91.7%) identified as women and n=1 (8.3%) identified as a man. Participants identified

their race/ethnicity as follows: "white" n=7 (58.3%); "white, Hispanic" n=2 (16.7%); "black or

African American" n=1 (8.3%); "native Hawaiian or other Pacific Islander" n=1 (8.3%); and

"Hispanic, Latino, or Spanish origin" n=1 (8.3%).

Table 9

Marital Status of Participants (N=12)

Demographic characteristic	Frequency	Percent
Marital status		
Single / Never married	10	83.3
Married	1	8.3
Divorced	1	8.3
	12	99.9

       Twelve of 22 participants (54.5%) provided data on their marital status. The majority

were single/never married (n=10, 83.8%) along with married n=1 (8.3%) and divorced n=1

(8.3%).

Table 10

Highest Level of Education of Participants (N=9)

Demographic characteristic	Frequency	Percent
Highest level of education		
Bachelor's degree	4	44.4
Master's degree	3	33.3
Some college, no degree	1	11.1
Associate's degree	1	11.1
	9	99.9

       Nine of 22 participants (40.9%) provided data on their highest level of education

achieved. The median and mode responses were "Bachelor's degree" (n=4, 44.4%), along with

"Master's degree" n=3 (33.3%), "some college, no degree" n=1 (11.1%), and "Associate's

degree" n=1 (11.1%).

Impact

       In the second section of the survey, participants considered how the experience of having

a loved one deploy to the current conflicts impacted them. The major findings in this regard

were that (a) the experience of having a loved one deploy to the current conflicts impacted participants in several important domains, (b) the nature of such impact was both negative and positive depending on the domain, (c) participants perceived a higher degree of stress in their lives than those in similar community samples have perceived, and (d) that unique characteristics of the deployment experience—in particular, high levels of uncertainty, chronic emotional distress, anonymity, and pervasive news media coverage of the wars—impacted participants.

Quantitative data.

Deployment impact questionnaire. Participants responded to the Deployment Impact (DI) questionnaire (Keyes, 2011b) and considered to what extent the deployment experience affected them in a number of specific domains. The 17 participants who responded to the question rated the effect in each of these domains using a 5-point Likert scale from 1 (*very negative*) to 5 (*very positive*) or *N/A*. Participants indicated overwhelmingly that the deployment experience had a negative impact on their stress level with 88% (n=15) indicating a "somewhat" or "very" negative effect. Other domains that respondents indicated were negatively impacted were sleep (59%, n=10), mood (71%, n=12), and mental health (59%, n=10) while 47% (n=8) indicated a positive impact on how the respondent communicated with others.

Perceived stress scale. The 10-item Perceived Stress Scale (PSS-10) measures how "unpredictable, uncontrollable, and overloaded respondents find their lives" (Cohen & Williamson, 1988, p. 34). Questions ask about the frequency with which participants have experienced stress-related thoughts and feelings in the past month, using a 5-point Likert scale from 0 (*never*) to 4 (*very often*). Sixteen of 22 participants (72.7%) completed the PSS-10. Their mean score was 19.2, median score was 21, standard deviation was 8.3, and range of

scores was 3 to 32. The PSS-10 is not a diagnostic scale but rather provides a benchmark score

for comparison purposes.

A t-test was run to determine if there was a difference in the mean response to the PSS-10

by service member's return status (i.e., whether, at the time of the participant's enrollment in the

study, the service member had returned from the most recent deployment). The hypothesis was

that those whose service member had returned from the most recent deployment would have a

lower PSS-10 score than those whose service member had not yet returned. No significant

difference was found.

Cohen and Williamson (1988) used the PSS-10 in a study of a large, civilian U.S. adult

population with a probability sample similar to U.S. Census population data. Data were

collected through telephone polling and the sample included 960 male and 1,427 female United

States residents, 18 years of age and older. The mean age of the participants was 42.8 with a

standard deviation of 17.2.   This sample's (N=2,387) PSS-10 results were as such: mean score

of 13.0, standard deviation of 6.4, and range of scores from 0 to 34.

Padden et al. (2011) examined stress, coping and well-being among a group of 105

female spouses of active duty Army members stationed at an East Coast Army post and on

deployment at the time of study participation. Stress was measured with the PSS-10 (Cohen &

Williamson, 1988) with a mean score for the sample of 17.5, standard deviation of 6.6, and range

of scores from 1 to 34 (Padden et al., 2011).

Compared to Cohen and Williamson's (1988) sample, the instant study's sample scored

higher on the PSS-10 by nearly one standard deviation. This study's sample also scored higher

on the PSS-10 than Padden et al.'s sample of female spouses of currently-deployed active duty

Army members (2011), though the magnitude of difference was smaller than with Cohen and

Williamson's (1988) sample. Both comparisons indicate that the instant study's sample perceived a higher degree of stress in their daily lives compared to a normative community probability sample and to a similar population sample of MEBEs. Likewise, the sample perceived their lives as more unpredictable, uncontrollable, and overwhelmed than those in the community sample and in the MEBE sample.

Survey completion status. Data was recorded that described participants' patterns with regard to the proportion of the survey they completed. Three categories of survey completion status were identified by the researcher: those who completed essentially all of the survey (n=12, 54.5%), those who completed at least one, but not all of the subscales (e.g., PSS-10, CSES; n=5, 22.7%), and those who dropped out of the survey after the first section (demographic data about the service member; n=5; 22.7%). A t-test was run to determine if there was a difference in the mean score on the PSS-10 by survey completion status. It was hypothesized that those who completed essentially all of the survey would have a lower PSS-10 score than those who completed at least one, but not all subscales as well as those who dropped out after the first section. No significant difference was found.

Qualitative data. Seven participants provided narrative responses to the question "What else would you like mental health workers, policy makers, and social service administrators to know about how this experience has impacted you?" Responses reflected three overarching themes: negative impact, positive impact, and no impact.

Negative impact.

Uncertainty caused difficulty. Three respondents discussed the uncertainty of their circumstances and how it impacted them. For example, one Latina participant, age 22-26, the girlfriend of a Marine Corps reservist noted that "uncertainty about future deployment has taken

a toll on our relationship." Another participant, a black female age 32-56, the friend of an active

duty member of the Air Force described her experience of extreme distress caused by uncertainty

as such "the not knowing how they are doing day-to-day is agonizing."

The same participant went on to explain the compounding affect that news media reports

in particular had on her distress "[the uncertainty] is compounded with every news broadcast of

an attack and loss of life. This put me in constant state of stress and worry." A white, Hispanic

female participant, age 32-56, the mother of an active duty Army soldier, echoed the distress

experienced trying to digest news media reports "every day I would hold my breath whenever a

news report started. When two young men from his unit disappeared, then found dead, it was

hell waiting until names were released."

Chronic emotional distress. The narrative of the participant just quoted reflects a chronic

state of emotional distress that was mirrored in two others participants' the narratives. One white

Hispanic female participant age 19-21, the sister of an active duty Marine Corpsman, described

the impact on her "[I] am now on depression medication because of the impact of deployment."

Another respondent noted that chronic emotional distress reduced her capacity for self-care. In

the words of this black female participant age 32-56, the friend of an active duty member of the

Air Force "I found it difficult to concentrate on my life for worrying over my friend's well-

being."

Feeling anonymous, unappreciated, and unsupported. A theme in the responses had to

do with participants' feeling alone, unrecognized, and/or unsupported in their difficulties. Two

of the seven respondents referenced this theme explicitly in their responses. One white Hispanic

female participant, age 19-21, the sister of an active duty Marine Corpsman, described a sense

that the impact of deployment is not fully grasped in the general population "it's underestimated

how difficult it is." Another participant, a white female, age 27-31, the co-worker of an active duty Army soldier, noted a lack of appreciation for military service members "the military has never been compensated properly for the job that they do and the things that they see." Given this was stated in response to a question about the impact of deployment on the participant, it is reasonable to wonder whether the participant felt unappreciated as well.

Though five of the seven participants who provided a response to this question reported an overall negative impact from the experience, two participants' descriptions were notably different for their characterization of the impact of deployment as positive or neutral.

Positive impact. One respondent, a white female, age 27-31, the girlfriend of an active duty Marine Corpsman noted "I feel [deployment] has made me a stronger person and has helped me to appreciate all life has to offer."

No impact. Another white female participant, age 22-26, the unmarried partner of an active duty Army soldier noted the implication of her nonfamily status in terms of not qualifying for services and explained "even though I didn't need [services or assistance], it would have been nice to know they were available to me." This participant seems to be speaking to two themes: that she did not find herself to be particularly impacted by deployment and that the current definition of family has implications for loved ones in terms of access to services. The latter will be addressed in the Needs Assessment section of this chapter.

Coping

In the third section of the survey, participants provided information about how they coped with the experience of having a loved one deploy to the current conflicts. The major findings in this regard were: (a) participants have used a variety of mechanisms to cope with the deployment experience; (b) the most frequently used coping mechanisms were relying on friends, staying in

touch with the service member, seeking out information, keeping busy, and relying on family; (c) participants' confidence in their ability to cope with life challenges was generally lower than in a similar community sample; however, their perception of their ability to seek and use social support to cope with problems and reduce stress was higher than in a similar community sample.

Quantitative data.

Coping self-efficacy scale. The Coping Self-Efficacy Scale (CSES) measures the respondent's faith in his or her ability to cope with life's hardships (Chesney et al., 2006). Respondents were asked, "When things aren't going well for you, or when you're having problems, how confident or certain are you that you can do the following: . . . ." They responded using an 11-point Likert scale with anchor points at 0 (*cannot do at all*), 5 (*moderately certain can do*), and 10 (*certain can do*), to express the extent to which they believed they could perform various coping skills.

Twelve of 22 participants (54.5%) completed the CSES. Overall, their mean score was 76.9 and the median score was 74.5, with a standard deviation of 42.3 and a range of scores from 8 to 130. In addition, scores were calculated for the three sub-scales of the CSES: (a) self-efficacy for problem-focused coping sub-scale (SEPFC; 6 items); (b) self-efficacy for emotion-focused coping sub-scale (SEEFC; 4 items); and (c) self-efficacy for social support sub-scale (SESS; 3 items). The sub-scale scores for the sample were: SEPFC mean of 38.5, standard deviation of 20.6; SEEFC mean of 18.2, standard deviation of 15.1; and SESS mean of 20.3, standard deviation of 10.4.

Colodro, Godoy-Izquierdo and Godoy (2010) published a study measuring coping self-efficacy using the CSES in a community-based sample including men and women residing in Britain. The sample was comprised of 182 adults between 18 and 66 years old (mean age of

77

39.07, standard deviation of 11.47) randomly recruited in community setting such as local schools, libraries, offices, and health care centers. Overall scores for the 13-item CSES among this sample were a mean score of 81.7 with a standard deviation of 30.5. The range of scores was unknown (Colodro et al., 2010). The sub-scale scores for the SEPFC, SEEFC, and SESS, respectively, were: SEPFC mean of 41.0, standard deviation of 12.6; SEEFC mean of 21.8, standard deviation of 10.0; and SESS mean of 18.9, standard deviation of 7.9 (Colodro et al., 2010).

It is interesting that, relative to the CSES results for Colodro et al.'s (2010) sample, the scores of the instant study's sample were lower overall and on each subscale except for the self-efficacy for social support (SESS) sub-scale. Higher scores on the CSES and its sub-scales indicate higher perceived self-efficacy for performing certain behaviors or using certain skills and vice versa. In this case, the sample's scores indicate that, on average, they have a higher "perceived self-efficacy for seeking and using social resources to cope with problems and mitigate or deaden stress" than those in Colodro et al.'s community sample (2010, p. 15).

A Pearson correlation was run to determine if there was an association between PSS-10 score and overall CSES score. There was a significant, negative, strong correlation between PSS-10 score and overall CSES score (r=-.850, p=.000, two tailed). This finding suggests an inverse relationship between PSS-10 score and overall CSES score (the higher the PSS-10, the lower the CSES).

Deployment coping methods questionnaire. In addition to the CSES, coping was measured with the Deployment Coping Methods (DCM) questionnaire (Keyes, 2011a), a multiple choice tool where participants reviewed a list of coping strategies and indicated all of those which they had used to cope with deployment. Twelve of 22 participants (54.5%)

responded to the DCM. The coping methods used by the most people in the sample were: "relying on friends" (83.3%), "communicating with the service member" (75.0%), "educating myself on relevant topics" (66.7%), "keeping busy" (66.7%), and "relying on family" (66.7%). The coping methods that were used by the fewest people were: "joining a group" (8.3%), "drinking alcohol" (16.7%), and "learning new ways to deal" (25.0%). See Table 11.

Table 11

Coping Methods Used by Participants (N=12)

Coping method	Frequency	Percent
Relying on friends	10	83.3
Communicating with the service member	9	75.0
Educating myself on relevant topics	8	66.7
Keeping busy	8	66.7
Relying on family	8	66.7
Talking to the loved ones of other service members	6	50.0
Calling upon my faith/spirituality	5	41.7
Talking to other service members	5	41.7
Avoiding thinking or talking about the impact	5	41.7
Talking to a therapist/mental health worker	4	33.3
Exercising	4	33.3
Learning new ways to deal	3	25.0
Drinking alcohol	2	16.7
Joining a group	1	8.3
	78	

Qualitative data. Five participants provided narrative responses to the question "What else would you like mental health workers, policy makers, and social service administrators to know about how you coped with this experience?" Respondents described employing both problem-focused and emotion-focused coping strategies. The narrative responses also provided some insight into the outcomes of respondents coping efforts.

Problem-focused coping strategies. Problem-focused coping strategies are those "directed at managing or altering the problem causing the distress" (Lazarus & Folkman, 1984,

p.150). This type of coping strategy is more likely when conditions are appraised as open to change. Two out of five respondents (40%) described problem-focused coping strategies.

Seeking treatment. One white Hispanic respondent, age 19-21, the sister of an active duty Marine Corpsman coped with the difficulties of deployment by seeking treatment "I have been seeing a psychiatrist."

Seeking information. Another respondent, a white Hispanic female participant, age 32-56, the mother of an active duty Army soldier described coping with extreme worry by seeking information "if any service men were mentioned as killed or injured, I would obsessively search the internet until I found out what division they were in."

Emotion-focused coping strategies. Emotion-focused strategies target managing or reducing emotional distress (Lazarus & Folkman, 1984). Four out of five respondents (80%) described using emotion-focused coping strategies.

Talking to others. A black female participant, age 32-56, the friend of an active duty member of the Air Force stated "it was important that I spoke with others about my feelings and thoughts."

Finding connection. The same participant also described coping through connection over shared experience "it was necessary to know that I was not the only one in the same situation."

Avoidance. Two respondents described coping through avoidance. A white Hispanic female respondent, age 19-21, the sister of an active duty Marine Corpsman noted "I avoid anything and everything having to do with the military, including news in general." Another respondent, a black female, age 32-56, the friend of an active duty member of the Air Force also described trying to avoid news media reports in particular "I didn't want to watch the news because it upset me so much, but I couldn't turn away."

Positive outlook and minimization. Two respondents described coping through maintaining a positive outlook by—in the words of a white female respondent, age 27-31, the co-worker of an active duty Army soldier—"tak[ing] one day at a time." Another female respondent, age 27-31, the girlfriend of an active duty Marine described her method "I just take it day by day and know that every day that goes by is a day closer to seeing him again. You have to have a positive outlook about it otherwise you are doomed."

Similar to efforts to cope by maintaining a positive outlook, minimization was a coping strategy described by one respondent, a white female, age 27-31, the co-worker of an active duty Army soldier "while it is difficult you still must accept it. If we did not have people in the military to make sacrifices, we would not be safe from harm." It might be understood that this participant's perspective on deployment, and possibly war in general, is that it is a necessary evil. That is, though deployment has important undesirable qualities and impacts, its existence is preferable to its absence and by believing in the value of her sacrifice, expressed in minimizing terms, this participant maintains her morale.

Problem-focused and emotion-focused coping, combined. Several participants' narrative responses illustrated coping strategies that simultaneously employed both emotion-focused coping and problem-focused coping. For instance, the participant quoted in the passage above described coping by "be[ing] strong and courageous for them so that they do not have anything to fear by their deployment." This statement seems to indicate this participant's belief that by being "strong and courageous" (emotion-focused coping) the participant is contributing a reduction in the service member's concerns about the deployment (problem-focused coping).

Needs Assessment

In the fourth section of the survey, participants provided information about their needs using the three-part Military Loved Ones Needs Assessment (MLONA) (Keyes, 2011c). The findings in this regard were: (a) participants are keenly interested in resources that would facilitate communication with the service member and opportunities for socializing, especially with others who were experiencing or had experienced similar situations; (b) availability of evening and/or weekend hours, travel distance from home, and time commitment were the most important barriers or facilitators to accessing services; (c) several factors influenced decisions to access resources including a preference to discuss one's problems with people who have been through similar experiences and/or who one knows and to solve one's problems on one's own; (d) participants denied concern about running into people they know when accessing services; (e) being able to access services directly through the DoD or VA was not important to the sample; (f) the most important barrier to access is the federal military institutions' definition of the family of the service member; (g) this issue underlies barriers to accessing information and to accessing military installations; (h) participants need and want to feel included, valued, part of a community, and know they are not alone.

Quantitative data. The MLONA (Keyes, 2011c) was used to assess the needs of the participants. Twelve of 22 participants (54.5%) responded to this section of the survey.

Specific needs. In the first part of the MLONA (Keyes, 2011c), participants rated, on a 5-point Likert scale from 1 (*very unlikely*) to 5 (*very likely*), the likelihood that they would use 19 different services, resources, and other supports to help them with this experience.

Twelve of 22 participants (54.5%) responded to this question. In order to rank their results, the frequency of responses was multiplied by the response value and then summed for

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each response choice. For example, if for a particular resource category, six participants chose "very unlikely" (response value of 1) and six chose "somewhat unlikely" (response value of 2) the total value for that response choice would be 18 (6*1 + 6*2=18). The total values were ranked in order and the overall likelihood was categorized based on the following scale: 12-23 very unlikely-somewhat unlikely; 24-35 somewhat unlikely-neutral; 36-47 neutral-somewhat likely; 48-60 somewhat likely-very likely. Results of this ranking process are displayed in Table 12.

Table 12

Likelihood of Projected Resource Usage by Category (N=12)

	Very unlikely		Somewhat unlikely		Neutral		Somewhat likely		Very likely		Total score
Resource category	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	
Communicating with the service member	0.0	0	0.0	0	8.3	1	8.3	1	83.3	10	57
Opportunities for socializing	8.3	1	0.0	0	8.3	1	25.0	3	58.3	7	51
Opportunities to meet others in similar situations	0.0	0	8.3	1	16.7	2	25.0	3	50.0	6	50
Educating myself on relevant topics	0.0	0	25.0	3	8.3	1	8.3	1	58.3	7	48
Exercising	0.0	0	16.7	2	16.7	2	8.3	1	58.3	7	47
Calling upon my faith/spirituality	8.3	1	0.0	0	16.7	2	50.0	6	25.0	3	46
Information from the military directly	16.7	2	50.0	6	0.0	0	0.0	0	33.0	4	46
Talking with other service members and/or their loved ones	16.7	2	8.3	1	8.3	1	16.7	2	50.0	6	45
Learning new ways to deal	16.7	2	0.0	0	25.0	3	16.7	2	41.7	5	44
Talking to a therapist/mental health worker	16.7	2	0.0	0	25.0	3	25.0	3	33.0	4	43
Help with personal needs/problems	16.7	2	8.3	1	16.7	2	25.0	3	33.0	4	42
Health care	8.3	1	16.7	2	33.0	4	16.7	2	25.0	3	40
Joining a group	16.7	2	25.0	3	8.3	1	25.0	3	25.0	3	38
Legal advice	33.0	4	8.3	1	25.0	3	8.3	1	25.0	3	34
Tangible support (money, shelter, food, clothing)	25.0	3	8.3	1	41.7	5	8.3	1	16.7	2	34
Financial advice	33.0	4	16.7	2	25.0	3	0.0	0	25.0	3	32
Employment assistance	25.0	3	16.7	2	41.7	5	8.3	1	8.3	1	31
Help with alcohol issues	58.3	7	8.3	1	25.0	3	0.0	0	8.3	1	23
Help with drug issues	66.7	8	0.0	0	25.0	3	0.0	0	8.3	1	22

The results indicated that respondents were most likely to use resources that enabled them to communicating with the service member. In addition, two other response choices fell in the somewhat likely-very likely range, in order: "opportunities for socializing" and "opportunities to meet others in similar situations." In the top half of the neutral-somewhat

likely range in descending order by total score were: "educating myself on relevant topics," "exercising," "calling upon my faith/spirituality," "receiving information directly from the military," "talking to other service members and/or their loved ones," "learning new ways to deal," and "talking to a therapist/mental health worker." Respondents were least likely to expect to use "help with alcohol issues" and "help with drug issues."

Barriers to access and access-facilitating factors.

Decisional factors. Part two of the MLONA (Keyes, 2011c) presented participants with a list of eight factors oft-cited in the literature as having influenced MEBE and NDFF decisions about accessing services, resources, and other supports. Respondents rated, using a 5-point Likert scale from 1 (*not important*) to 5 (*extremely important*), the hypothetical importance to them of each factor in making similar decisions. Results are summarized in Table 13. Twelve of 22 participants (54.5%) responded to this section of the MLONA.

Table 13

Relative Importance of Decisional Factors (N=12)

	Not important		Neither important nor unimportant		Important		Very important		Extremely important		Total score
Decisional factor	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	
Availability of evening and/or weekend hours	0.0	0	0.0	0	41.7	5	8.3	1	50.0	6	49
Travel distance from home	0.0	.0	8.3	1	33.3	4	25.0	3	33.3	4	46
Time commitment (not including travel time)	0.0	.0	25.0	3	16.7	2	33.3	4	25.0	3	43
Availability of free parking	25.0	3	25.0	3	8.3	1	16.7	2	25.0	3	35
Convenience to public transportation	50.0	6	8.3	1	8.3	1	0.0	0	33.3	4	31
Reimbursement of transportation costs	41.7	5	16.7	2	25.0	3	0.0	0	16.7	2	28
Meal provided	41.7	5	33.3	4	8.3	1	8.3	1	8.3	1	25
Child care provided on-site	75.0	9	8.3	1	8.3	1	0.0	0	8.3	1	19

Participants' responses indicated the most important factor was the "availability of evening and/or weekend hours," followed by "travel distance from my home" and then "time commitment (not including travel time)." Responses regarding the factor, "convenience to public transportation," indicated it was either extremely important or not important. The frequencies for this factor were: "not important" n=6 (50%), "neither important nor unimportant" n=1 (8.3%), "important" n=1 (8.3%), and "extremely important" n=4 (33.3%).

Values and preferences. In part three of the MLONA (Keyes, 2011c), participants were presented with a list of 10 phrases describing attitudes, preferences, and values toward accessing services, resources, and other supports to help with the deployment experience. They used a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*) to indicate the degree to which these phrases described their own values and preferences in this regard. See Figure 1. Twelve of 22 participants (54.5%) responded to this part of the MLONA.

Figure 1

Factors Influencing Resource Use Decisions, by Relative Importance (N=12)
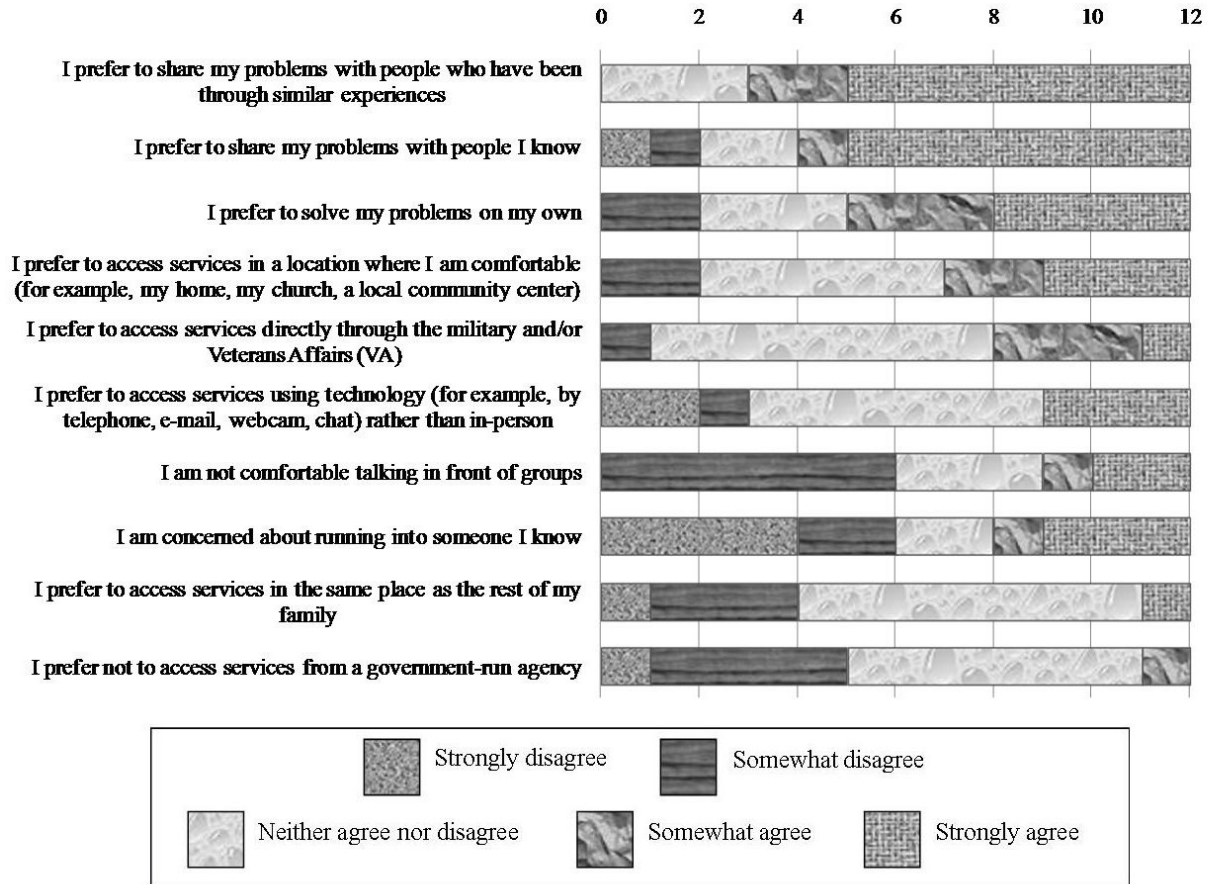
Agreement was strongest for the factor "I prefer to share my problems with people who have been through similar experiences" followed by "I prefer to share my problems with people I know" and then "I prefer to solve my problems on my own." Disagreement was strongest for the factor "I am concerned about running into someone I know." Responses were most neutral (and equally so) on the factors "I prefer to access services in the same place as the rest of my family" and "I prefer to access services directly through the military and/or Veterans Affairs."

Qualitative data. Three participants provided narrative responses to the question "What else would you like mental health workers, policy makers, and social service administrators to

know about your needs for resources, services, and other supports?" Responses to this question fell into three categories: (a) confirming unmet needs exist in this population; (b) identifying and addressing barriers to service as well as facilitative factors; and (c) providing a wish list for services, resources, and other supports. In addition, two participants addressed themes relevant to this section of the study in their responses to other open-ended questions. These responses will be included in this section of the report for a total of five participants' responses.

Unmet needs exist. All five respondents (100%) indicated—either by listing specific resources and services that they lack or by describing in more general terms—that they have unmet needs. In the words of one respondent, a black female age 32-56, the friend of an active duty member of the Air Force, "I needed as much support as the service member did."

Three respondents articulated their needs in relation to those of military spouses. One, a white Hispanic female participant, age 32-56, the mother of an active duty Army soldier argued for greater access to resources noting "the fact that I lived several states away doesn't mean I am not just as stressed as loved ones living on base."

Barriers to access and access-facilitating factors. Respondents discussed specific barriers to access and made suggestions about how to resolve them. The narratives of four of the five respondents (80%) fell into this category.

Definition of family. The federal military institutions' eligibility standards for resources, services, supports, and access to information, in particular their narrow definition of family, were the most often cited barrier with four respondents (80%) mentioning this theme in their narrative. This issue was at the foundation the two other types of barriers mentioned—access to information and access to military installations—so respondents' quotes will be included in those sections.

Access to information. Two respondents (40%) specifically cited that not having access to information was a major obstruction for them. One respondent, a white Hispanic female age 32-56, the mother of an active duty Army soldier suggested "I think mothers should be included as family members when information is shared even though out of the physical community of the base."

Another respondent, a white female age 22-26, the unmarried partner of an active duty Army soldier, described the way that barriers to accessing information and communications networks blocked her from participating in official activities and put the burden of providing information to her on the service member even while he was deployed:

> I had no contacts with anyone else in my now-fiancé's company, so I would only get information from him directly. I found out that there were newsletters and phone trees about activities when he returned. For example, I had no idea when he was coming back although there was a phone network connecting all the wives.

Access to military installations. One respondent, a white female, age 27-31, the girlfriend of an active duty Marine Corpsman noted that difficulty getting onto military installations was a barrier to accessing hypothetical resources located on military bases "there needs to be something for boyfriend/girlfriends of deployed service members who don't have the spouse benefit yet and may not be able to get on to a base and get into a help group."

Wish list for services, resources, and other supports. Four respondents (80%) either implied or cited specific resources, services, and other supports that they need and would be interested in accessing. Notably, the majority of these services already exist and are accessible for MEBEs, but various obstacles block respondents from using them. Several of the resource

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needs cited by respondents have already been mentioned in this section: support/self-help groups, access to information, and attendance at official activities (e.g., welcome home ceremonies).

In addition, one respondent of Hispanic, Latino or Spanish origin, age 22-26, the girlfriend of a Marine Corps reservist proposed "the VA should increase mental health services available to family and friends of service members recently deployed." This statement suggests that her needs (and other family and friends, she implies) include access to mental health services and that she believes the way to resolve this need is to expand VA eligibility.

Finally, one theme ran throughout all of the responses to this question: respondents need to feel included and valued, they need to be part of a community, and they need to know they are not alone.

It is important to note that results were inferred and should be read only as speculation as the sample size does not render this information generalizeable. Statistical analyses that were done or could have been done were extremely limited due to the sample size. The next chapter will interpret with caution these results. The discussion will primarily suggest possible implications for future research, treating the instant study as a pilot.

Chapter V

Discussion

The aim of this exploratory study was to add to the knowledge about the impact on family and friends of having a valued friend or family member deployed to war by developing and piloting a methodology for looking at this complex set of issues. The methodology used in this study was developed after an extensive review of the relevant literature, made use of standardized measurement tools where available, and pioneered social networking media as a recruitment tool.

Specifically, the study surveyed NDFFs of unmarried service members who have deployed to the wars in Iraq and Afghanistan. There is a substantial and growing literature documenting the impact of deployments, coping strategies, and needs of MEBEs, but little is known relative to NDFFs of unmarried service members, despite the fact that the current active duty force is split 50/50 in terms of marital status. In part, this lack of understanding of NDFFs of unmarried service members and married LGBT service members[4] has to do with official definitions of *family* and the implications for those who fall outside of this definition.

The federal military institutions—namely the Department of Defense (DoD) and the Veterans Administration (VA)—essentially define the service member's *loved ones* as his or her family; these institutions define family as legal spouse and dependent children (Institute of

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[4] Though same-sex spouses of married LGBT service members were recruited for this study, no one identifying as such was among the sample participants.

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Medicine, 2010). In this report, those in the subset of loved ones that includes a service member's legal spouse and dependent children were referred to as *military-endorsed benefit-eligible* (MEBE).

In essence, under the federal military institutions' definition, people who might be recognized by the general public as family such as partners, boyfriends, girlfriends, fiancé/es, parents, siblings, adult children and grandparents (not to mention friends and other non-kin) are excluded. For this study, those falling into a second subset of loved ones were referred to as *nondependent family or friend* (NDFF). This group included nondependent family of service members such as parents, siblings, nonmarried significant others, friends, and co-workers.

In summary, the study's sample was comprised of NDFFs of unmarried service members who have deployed at least once to Iraq or Afghanistan. The study addressed the following research question: among those who identify as impacted by the war-time military deployment of a valued friend or family member, what is the impact of this experience, how do they cope, and what are their resource needs?

This study was undertaken with the hope that greater awareness of the cumulative impact of deployments on the NDFFs of unmarried service members involved in the current wars would inform and direct practice with this population, specifically in terms of targeted outreach; would inform and direct further research; and would inform and direct policy, specifically relating to the organization of systems for communication, provision of health and mental health care, and training and education of clinicians.

The results of this study suggest that for the sample: (a) the experience of having a loved one deploy to the current conflicts impacted them in several important domains; (b) the nature of such impact was both negative and positive depending on the domain; (c) participants perceived

more stress in their lives than those in similar community samples have; (d) a variety of mechanisms have been used by participants to cope with the deployment experience; (e) the most frequently used coping mechanisms were relying on friends, staying in touch with the service member, seeking out information, keeping busy, and relying on family; (f) participants' confidence in their ability to cope with life challenges was generally lower than in a similar, community sample; however, their perception of their ability for seeking and using social support to cope with problems and reduce stress was higher than in similar community samples; (g) participants were keenly interested in resources that would facilitate communication with the service member and opportunities for socializing, especially with others who are experiencing or have experienced similar situations; (h) accessibility of evening and/or weekend hours, travel distance from home, and time commitment were the most important barriers or facilitators to service; (i) several factors influence decisions to access resources including preferences to discuss one's problems with people who have been through similar experiences and/or who one knows and to solve one's problems on one's own; (j) participants denied concern about running into people they know when accessing services; (k) being able to access services directly through the DoD or VA was not important to the sample; (l) the most important barrier to access is the federal military institutions' definition of the family of the service member; (m) this issue underlies barriers to accessing information and to accessing military installations; (n) and they need and want to feel valued, to be part of a community, and to know they are not alone.

This chapter will consider these findings relative to the body of literature reviewed earlier in this report, examine the implications of the findings for clinical practice and policy, and provide recommendations for future work.

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Consistency of Findings and Future Research

Impact. Part of the purpose of this study was to explore the experiences of NDFFs precisely because this area represents a gap in the literature. Indeed, most studies of the impact of deployment on military loved ones have focused on the secondary effects of service members' military-related trauma on their spouses and children (Bowling & Sherman, 2008; Dekel & Goldblatt, 2008; Suozzi & Motta, 2004; Leiner, 2009; Riggs et al., 1998; Lyons & Root, 2001; Galovski & Lyons, 2004; Erbes et al., 2008; Peebles-Kleiger & Kleiger,1994; Rosenheck & Fontana, 1998; Sherman, 2003; Figley, 1993; McCubbin et al., 1974; Lyons, 2007). Thus, to have gained further knowledge of the experience of NDFFs is a significant contribution to the literature.

Negative impact. Participants indicated overwhelmingly that the deployment experience had a negative impact in various areas of their lives, most particularly on their stress level. In fact, responses describing the impact of deployment on participants' stress levels and their perception of stress in their lives was high relative to similar populations. As measured using the Deployment Impact questionnaire (DI; Keyes, 2011b), n=15 participants (88%) indicated deployment had a "somewhat" or "very" negative effect on their stress level. Likewise, participants' overall scores on the PSS-10 were higher than those of a normative community probability sample (Cohen & Williamson, 1988) by nearly one standard deviation. The instant study's sample also scored higher on the PSS-10 than Padden et al.'s (2011) sample of 105 female spouses of then-deployed active duty Army members. However, the magnitude of difference was smaller between the instant sample and Padden et al.'s (2011) sample versus the instant sample compared to Cohen and Williamson's sample (1988). At the same time, Padden et al.' (2011) sample produced an average PSS-10 score higher than in Cohen and Williamson's

civilian sample (1988). Similarly, Warner et al.'s (2009) study of 295 spouses of Army service

members surveyed as they prepared for deployment scored higher on the 14-item PSS than those

in a normative civilian probability sample.

In total, this information indicates that this study's sample perceived a higher degree of

stress in their daily lives compared to a normative community probability sample and to a similar

population sample of MEBEs. Likewise, the sample perceived their lives as more unpredictable,

uncontrollable, and overwhelmed than those in the community sample and in the MEBE sample.

Though this study's small sample size precludes its findings from being generalized to a larger

population, these results certainly suggest that deployment is likely to increase NDFF perceived

stress. These findings coincide with the literature which shows elevated levels of stress and

perceived stress in MEBEs (Padden et al., 2011; Eaton et al., 2008; Darwin, 2009; Lyons, 2007)

and NDFFs (Demers, 2009; Darwin, 2009).

In addition, seven respondents addressed the impact of deployment in their narrative

responses. More precisely, 42.9% of respondents cited that the uncertainty inherent in the

deployment context contributed to higher stress and greater impact which affirmed findings in

the literature on both MEBEs and NDFFs (Davis et al., 2011; Demers, 2009; Wheeler & Torres

Stone, 2010). They also cited the role of news media reports on their perceived increase in stress

levels, another concept affirmed in the literature (Figley, 1993; Davis et al., 2011).

Other domains where respondents indicated on the DI (Keyes, 2011b) a negative impact

from the deployment experience were sleep (59%, n=10), mood (71%, n=12), and mental health

(59%, n=10). Similarly, 42.9% of narrative responses indicated chronic emotional distress and

28.6% described a sense of aloneness. Overall, five of seven narrative responses (71.4%)

endorsed that deployment had a negative impact on the respondent.

These findings are consistent with prior studies of MEBEs and NDFFs which found the impact of deployment manifested through physical symptoms (Padden et al., 2011; Demers, 2009; Dimiceli et al., 2010); and decreased mental well-being (Padden et al., 2011; Demers, 2009; Eaton et al., 2008). Further, one respondent, the girlfriend of a Marine Corps reservist noted in her narrative response the deployment had "taken a toll" on her relationship with the service member. This finding is consistent with reports in the literature on MEBEs that show elevated rates of distress in the intimate relationships of service members returning from Iraq and Afghanistan as well as in the MEBEs themselves (Riggs et al., 1998; Lyons & Root, 2001; Galovski & Lyons, 2004).

Positive impact or no impact. Amidst those reporting a negative impact from deployment, a minority of respondents described a positive or neutral impact. For instance, on the DI (Keyes, 2011b), 47% (n=8) indicated that deployment had a positive impact on how the respondent communicated with others. Likewise, one respondent's narrative indicated that deployment had made her a "stronger person" and "helped [her] to appreciate all life has to offer." Another respondent's narrative described no particular impact on her by deployment. Literature on both MEBEs and NDFFs has found similar positive impacts from deployment such as personal growth and increased sense of self-efficacy (Wheeler & Torres Stone, 2010; Davis et al., 2011; Demers, 2009; Lyons, 2007). These findings suggest that the impact is complex and nuanced. Further analysis of this data or a larger dataset potentially could parse out risk and protective factors associated with various impact outcomes.

Additional areas for future research. One area of impact that was not explicitly explored in this study, but has been demonstrated in studies including MEBEs and NDFFs is verbal or physical abuse and/or domestic violence (both victimization and perpetration thereof)

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(Demers, 2009; Darwin, 2009). Future research should focus on the rates of domestic violence among NDFFs.

Also, in multiple studies on the impact of deployment on MEBEs', stress was negatively related to the participant's age, his or her spouse's age, and length of military service (Padden et al., 2011; Davis et al., 2011). Likewise, higher perceived stress was related to lower physical and mental well-being. Unfortunately, the small sample size limited the types of analyses that could be run on the data and testing such conclusions in the literature.

Coping. Overall, the study affirmed the previous findings about how MEBEs and NDFFs cope with deployment.

Coping self-efficacy. The CSES measures the respondent's faith in his or her ability to cope with life's hardships (Chesney et al., 2006). Relative to the CSES results for Colodro et al.'s (2010) community-based random sample of 182 men and woman between 18 and 66 years old residing in Britain the scores of the instant study's sample were lower overall and on each subscale except for the self-efficacy for social support sub-scale. Higher scores on the CSES and its sub-scales indicate higher perceived self-efficacy for performing certain behaviors or using certain skills and vice versa. In this case, the sample indicated, on average, higher "perceived self-efficacy for seeking and using social resources to cope with problems and mitigate or deaden stress" than those in Colodro et al.'s community sample (2010, p. 15). This finding should be explored by future researchers to attempt to replicate this pattern with a larger sample and possibly determine whether and what might be learned about the risk and protective factors that generate this phenomenon.

In addition, a Pearson correlation revealed a significant, negative, strong correlation between PSS-10 score and overall CSES score (r=-.850, p=.000, two tailed), suggesting that

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there was a negative correlation between PSS-10 score and overall CSES score (the higher the perceived stress, the lower the coping self-efficacy beliefs).

Coping methods. Results of the Deployment Coping Methods (DCM) questionnaire (Keyes, 2011a) indicated participants were most likely to employ the following coping methods: "relying on friends" (83.3%), "communicating with the service member" (75%), "educating myself on relevant topics" (66.7%), "keeping busy" (66.7%), and "relying on family" (66.7%).

In addition, the narratives of 40% of respondents in the instant study reflected problem-focused coping strategies such as seeking treatment and seeking information. At the same time, 80% of respondents described emotion-focused coping strategies of reaching out to others, finding connection, avoidance (including attempts to avoid news media reports about casualties of the conflicts), maintaining a positive outlook, and minimization.

These findings are replicated in the literature where MEBE samples endorsed coping by keeping busy (Davis et al.,2011; Wheeler & Torres Stone, 2010; Dimiceli et al., 2010); communicating with the service member (Wheeler & Torres Stone, 2010); seeking information about relevant topics (Lyons & Root, 2001); and positive thinking (Davis et al., 2011; Dimiceli et al., 2010). In addition, MEBEs and NDFFs in various studies endorsed coping by relying on friends and family (Davis et al., 2011; Wheeler & Torres Stone, 2010; Spera, 2009); avoidance (Wheeler & Torres Stone, 2010; Dimiceli et al., 2010; Demers, 2009; of news reports, Davis et al., 2011) and active coping (Dimiceli et al., 2010; Demers, 2009).

The coping methods that were used by the fewest people were: "joining a group" (8.3%), "drinking alcohol" (16.7%), and "learning new ways to deal" (25.0%). In addition none of the participants who responded to this question endorsed "doing drugs" as a coping method. Nonetheless, further research into the use of substances to cope among NDFFs is indicated as it

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was indeed endorsed as a coping strategy in this sample and in the literature (for instance, Demers, 2009; Eaton et al., 2008).

Notably, respondents described employing emotion-focused and problem-focused coping strategies in combination with each other, a pattern that has been identified in prior research (for example, Lazarus & Folkman, 1984). In Chapter IV an example of this was given using a passage from one respondent's narrative: "Be[ing] strong and courageous for them so that they do not have anything to fear by their deployment." The participant's belief that by being "strong and courageous" (emotion-focused coping), she is helping reduce the service member's concerns about the deployment (problem-focused coping) was pointed out. In addition, it could be inferred that this coping method allows the participant to feel more in control of both the external environment (i.e., the service member's state of mind; problem-focused coping) and of her internal self (emotion-focused coping).

In Averill's discussion of control as a coping mechanism, he describes a number of sub-categories that are relevant to this example (as cited in Lazarus & Folkman, 1984). Among them are *behavioral control* which involves "direct action on the environment" and *cognitive control* which speaks to "the way a potentially harmful event is interpreted" (Lazarus & Folkman, 1984, p. 171). Like the way this respondent is using multiple types of coping strategies simultaneously, she is also invoking multiple types of control in the same action. Being "strong and courageous" involves behavioral control in that she is attempting to take direct action on the environment by reducing her loved one's concerns through her own actions; at the same time, cognitive control represents her belief that she can keep her loved one safe and influence potential harm through her own behaviors.

Indeed, this respondent's coping strategy lines up with existing research indicating that receiving bad news from home has the potential to reduce the service member's concentration on his or her job, possibly increasing his or her risk in the combat zone (Davis et al., 2011).

Coping and outcome. This study affirmed the findings in the literature that, like their service member loved ones, many NDFFs value self-sufficiency and indeed show notable resourcefulness, resilience, and adaptive coping (Davis et al, 2011; Wheeler & Torres Stone, 2010; Demers, 2009; Lyons, 2007). However, as the research has indicated, many others are struggling to adapt to the circumstances of their loved one's deployment and to cope with related, often chronic, stressors (Demers, 2009; Padden et al., 2011). Narrative responses described coping strategies that led to negative outcomes for the respondent (i.e., reductions in function). For instance, in Chapter IV a narrative passage of a white, Hispanic female participant, age 32-56, the mother of an active duty Army soldier was quoted wherein she described responding to news reports of military casualties by frantically searching the internet for information about the identity of the casualties described feeling "guilt at the relief that it was not my son's division." In this way, her efforts to seek information (problem-focused coping) contributed to an increase in her emotional distress (guilty feelings). This participant described this process as occurring "every day" upon taking in news media updates about the wars. The sense of this woman's chronic suffering seems to illustrate that the choice of coping strategies impeded her overall functioning.

The definition of what methods constitute successful, healthy coping varies widely across individuals, indicating multidimensional factors are at play in any loved one's environment (Lazarus & Folkman, 1984) and a full exploration of coping and outcome is beyond the scope of this report. Further research is needed to learn more precisely what healthy coping looks like for

this population, to understand more clearly the relationship between stress and coping, and to clarify our understanding of relevant risk and protective factors for this population.

Needs assessment. This study expands our knowledge of the needs for services, resources and other supports of NDFFs as well as particular barriers to access and access-facilitating factors for this population.

Unmet needs. According to results of the MLONA (Keyes, 2011c), participants were most likely to use resources that would facilitate communication with the service member and opportunities for socializing. In terms of social outlets, respondents were especially interested in services that would provide them the opportunity to meet others who are experiencing or have experienced similar situations. This preference was expressed in Padden et al.'s (2011) recent research on MEBEs and Demers (2009) study of MEBEs and NDFFs.

Literature on both MEBEs and NDFFs has related these groups' interest in socializing with others in similar situations to the experience of having "been silenced" (Davis et al., 2011; Demers, 2009) by civilian friends and family. Davis et al. (2011) published interesting results on this theme relative to MEBEs. All 11 participants in their qualitative study endorsed having felt silenced by the civilian community. They cited civilian behaviors such as forgetting (e.g., the impact their words have on military families—examples given included war protestors) and making assumptions (e.g., responses such as "I know how you feel") as well as an unspoken expectation to protect others (e.g., deployed spouses and young children) from worrisome information all of which had a silencing effect on the participants (Davis et al, 2011). Based on the suggestions of those in their sample, Davis et al. (2011) published a list of specific ways that civilians can help support MEBEs and NDFFs; the primary suggestion was attentive listening.

In Demers' (2009) focus groups with NDFFs, participants described similarly

bothersome interactions with others in the civilian community. Of this finding, Demers noted:

> Similar to the experiences of veterans' spouses documented by Peebles-Kleiger and
>
> Kleiger, some family members revealed that when they do have opportunities to discuss
>
> their feelings, they are not met with understanding or compassion but are either censored
>
> and dismissed as unpatriotic, or the conversations become political discussions about the
>
> war - neither of which is beneficial to family members. (2009, Seeking Support section,
>
> para. 3)

Demers (2009) references Peebles-Kleiger and Kleiger's (1994) finding that during Operation

Desert Storm, when spouses tried to talk openly about their anger at the loss of control the

deployment experience represented, they were often met with uncomfortable silence or even

punishment for complaining. This researcher understood her sample's interest in support groups

as a means to correct for the lack of support expressed in such interactions with civilians

(Demers, 2009). More broadly, all of those who provided narrative responses expressed a need

and want to feel included, valued, and part of a community as well as to know they are not alone.

Similar sentiments are shared by MEBEs (Davis et al, 2011; Peebles-Kleiger & Kleiger, 1994;

Warner et al., 2009; Lyons & Root, 2001; Lyons, 2007; Davis et al., 2011) and NDFFs (Spera,

2009) in the literature.

In their narrative responses, participants in the instant study also identified the need for

"help groups," access to information, access to and information about attendance at official

military family activities, access to services through the VA, and access to mental health

services. It is important to emphasize the fact that these resources currently exist in some form

and are generally available to MEBEs. Further, these results are confirmed in needs assessment literature pertaining to MEBEs and NDFFs which identify need for support/self-help groups (Black, 1993; Demers, 2009); wider access to information (e.g., about the service member's well-being and that of his or her unit; Department of Defense Task Force on Mental Health, 2007); employer-sponsored resources aimed at improving morale and supporting employees' loved ones' coping capacity (Spera, 2009; Orthner, 2009; Black, 1993); access to services provided by the VA, specifically (Galovski & Lyons, 2004); and access to mental health services (Eaton et al., 2008; Warner et al., 2009).

Barriers and facilitators to access. According to participants' narrative responses, the most important barrier to access is the federal military institutions' definition of the family of the service member. The impact of this definition on MEBEs and NDFFs has been well-documented in the literature (Galovski & Lyons, 2004; Sherman et al., 2005; Spera, 2009; Demers, 2009; Department of Defense Task Force on Mental Health, 2007). According to participants' narratives, the barriers that this definition causes underlie further difficulties related to access: that of access to information and access to military installations. Both of these barriers were identified in the Department of Defense Task Force on Mental Health's 2007 report.

Accessibility of evening and/or weekend hours, travel distance from home, and time commitment were the most important barriers or facilitators to service according to MLONA (Keyes, 2011c) responses. These barriers were also identified in the literature on MEBEs (Lyons & Root, 2001; Warner et al., 2009). At the same time, responses regarding the factor *convenience to public transportation* indicated this factor was either extremely important or not important at all. It makes sense that the relative importance of access to public transportation would fall along clear lines, mostly determined by those with access to a private vehicle and

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those without such access. This finding has two important implications for those providing such resources: (a) it cannot be assumed that potential clients have access to a private vehicle, and; (b) if the physical location of a resource or service is not accessible to public transport, administrators should consider putting in place processes for local transportation for those without access to private vehicles. For example, consideration might be given to pooling with other community resources such as the organization Disabled American Veterans which provides rides to VA appointments for those who do not have access to another means of transportation.

Several factors influence participants' decisions to access resources, the most important of which were a preference to "discuss my problems with people who have been through similar experiences," a preference to "discuss my problems with someone I know," and a preference to "solve my problems on my own." In the literature, Padden et al.'s (2011) sample indicated a similar preference to rely upon one's social circle and especially so if it included others who had had similar experience. Similarly, the preference to solve one's problems on one's own coincides with Black's (1993) findings relating to MEBEs following Operation Desert Storm as well as Davis et al.'s (2011) recent study of MEBEs of service members involved in the current conflicts. Indeed, Black (1993) suggests that interventions with the population should focus on strengths and self-sufficiency rather than psychological pathology in order to reduce stigma associated with difficulties coping with the stress of deployment.

Participants denied concern about "running into people I know" when accessing services. This is a positive finding from the perspective of addressing stigma related to accepting services, particularly those related to mental health needs. This finding aligns with research indicating that stigma is less of an impediment to MEBEs (spouses, in particular) seeking mental health services than for their service member spouses (Warner et al., 2009; Eaton et al., 2008). Future

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research focusing specifically on the impact of such stigma for NDFFs would be worthwhile. Participants also expressed no preference for receiving services from the DoD or VA. This is an encouraging finding for the prospect of community resources stepping up to meet the needs of NDFFs as long as they are not allowed access to such services by DoD or VA and/or until such organizations might have available capacity to meet NDFFs' needs.

Next Steps

Limitations of this pilot study relative to methodological bias and personal bias of the research were discussed in detail in Chapter III. Further, the small sample of this pilot study limited the generalizability of its findings. Certainly, future researchers should apply this pilot methodology to larger samples in order to generate meaningful, generalizable findings. Having reviewed and analyzed the study's findings, however, it is clear that this pilot effort had many strengths and significant results. While much still remains to be learned, this study demonstrates that nondependent family and friends (NDFFs) of unmarried service members are deeply impacted by the deployment experience and that they both want and need support in coping with this experience. NDFFs like those who participated in this study are members of our own communities and we cannot afford to continue to overlook them. Mental health clinicians and society as a whole owe it to them to make intentional efforts to help them in whatever way they need, be it to care, to reach out, or to listen.

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Appendix A

Facebook page post

Have you been impacted by another person's military service?
Speak up and share your valuable knowledge by completing a short online survey.
Help mental health workers, policy makers, and social services administrators
learn how military deployments impact you and others like you.
Your feedback is important!

Like Comment Share

Appendix B

Message to Facebook network: Request for assistance with study recruitment

To: [Sarah Keyes' Facebook network]

Message: **Recruiting participants for my research study**
As you might know, I am a graduate student at Smith College School for Social Work and a military sibling. I am conducting research on the social network of service members who have deployed to the wars in Iraq and Afghanistan. The study aims to understand: the cumulative impact of these wars on friends and family of service members, the ways they cope, and their special needs for resources and other supports. As you can see below, I have posted in my news feed information about the study and a link to its online survey. I am asking you to help me expand my study recruitment efforts by clicking 'Share' on my post and opting to post to your own profile.
If you have any questions, please message me. Many thanks in advance. –Sarah

Have you been impacted by another person's military service?
Speak up and share your valuable knowledge by completing a short online survey.
Help mental health workers, policy makers, and social services administrators
learn how military deployments impact you and others like you.
Your feedback is important!

Like Comment Share

Appendix C

E-mail message: Request for assistance with study recruitment

Dear _____,

I am a military sibling and a graduate student at Smith College School for Social Work and I am writing to ask for your help with recruitment for my research study on the social network of service members deployed to the wars in Iraq and Afghanistan. This study aims to understand: the cumulative impact of these wars on friends and family of unmarried service members, the ways they cope, and their special needs for resources and other supports.

Participants must be 18 years of age or older, able to read and write in English, reside in the United States, currently *not* a member of the U.S. Armed Services, and identify as having been impacted by another person's military service. The service member who has impacted the participant must have deployed to Iraq or Afghanistan at least once and be unmarried (i.e., divorced, separated, single/never married, or widowed) OR in a marriage not recognized by the U.S. Armed Services under the Don't Ask Don't Tell policy, which prevents gay and lesbian men and women from serving openly in the U.S. Armed Services. For the study, participants will be asked to complete an anonymous on-line survey which they can access at https://www.surveymonkey.com/s/PFV2LF8.

I have attached a recruitment flier that you can email to potential participants. The flier has a link to the on-line survey. In addition, please forward this flier to any of your contacts who might be able to reach more participants.

Thank you very much for your support in recruiting for my study.

Sincerely,

Sarah Keyes

Appendix D

Recruitment flier for e-mail distribution

Have you been impacted by another person's military service?

My name is Sarah Keyes and I am a military sibling and a graduate student at Smith College School for Social Work. **I am conducting research on the social network of service members deployed to the wars in Iraq and Afghanistan.**
This study aims to understand:
- the cumulative impact of these wars on family and friends of service members;
- the ways family and friends of service members have been coping; and
- Their special needs for resources and other supports.
    Data gathered through on-line surveys will support my Masters thesis research on this understudied and important group.

Interested? Click here to proceed to the survey!

DoD/Demetrius Kennon

DoD/Sam Shore

DoD/Chantel M. Clayton

DoD/Jennifer A. Villalobos

To be eligible to participate, you must :
- Be 18 years of age or older;
- Able to read and write in English;
- Reside in the United States (including Puerto Rico);
- Currently not be a member of the U.S. Armed Services, including National Guard and Reserves;

- Identify as having been impacted by another person's military service who:
1. Has deployed to Iraq or Afghanistan at least once;
2. Is unmarried (e.g., divorced, separated, single) **OR** whose marriage is not recognized by the U.S. Armed Services

Recruitment flier embedded as page 1 in SurveyMonkey

Have you been impacted by another person's military service?

My name is Sarah Keyes and I am a military sibling and a graduate student at Smith College School for Social Work. **I am conducting research on the social network of service members deployed to the wars in Iraq and Afghanistan.**
This study aims to understand:
- the cumulative impact of these wars on family and friends of service members;
- the ways family and friends of service members have been coping; and
- their special needs for resources and other supports.

Data gathered through on-line surveys will support my Masters thesis research on this understudied and important group.

To participate, you must meet the following criteria:
- Be 18 years of age or older;
- Able to read and write in English;
- Reside in the United States (including Puerto Rico);
- Currently <u>not</u> be a member of the U.S. Armed Services, including National Guard and Reserves;
- Identify as having been impacted by another person's military service who:
  1. Has deployed to Iraq or Afghanistan at least once
  2. Is unmarried (in other words, divorced, separated, single) **OR** whose marriage is not acknowledged by the U.S. Military

Interested? Click 'Next' to proceed to the survey!

DoD/Demetrius Kennon

DoD/Chantel M. Clayton

DoD/Sam Shore

DoD/Jennifer A. Villalovos

Appendix F

Screen shots of Screening Questions

6%

Thank you for your interest in this survey. Before beginning, you must answer a series of questions that serve to verify your eligibility for this study.

*1. Are you 18 years of age or older?

◯ Yes

◯ No

Next

Done   Internet | Protected Mode: On   100%

	9%

✱ 2. Are you able to read and write in English?

◯ Yes

◯ No

[Next]

Powered by **SurveyMonkey**
Create your own free online survey now!

4. Screening Questions (cont'd)

████████   **12%**

*3. Do you currently reside in the United States? (This includes the 50 states, the District of Columbia, and Puerto Rico).

◯ Yes

◯ No

Next

Done   🌐 Internet | Protected Mode: On   🔍 100%

5. Screening Questions (cont'd)

| ▉▉▉▉▉▉▉▉ | 15% |

*4. Are you currently a member of the U.S. Armed Services? (This includes the National Guard and Reserves).

○ Yes

○ No

Next

Internet | Protected Mode: On   100%

128

| ██████████ | **18%** |

*5. Have you been impacted by another person's military service?

⚪ Yes

⚪ No

Next

Done   Internet | Protected Mode: On   100%

| 21% |

If you have been impacted by the military service of more than one person, please choose the person whose service has impacted you the most. Please keep the same person in mind as you answer the following 2 questions.

*6. Has this service member deployed AT LEAST ONCE to Iraq or Afghanistan?

- ○ Yes
- ○ No

Next

Done | Internet | Protected Mode: On | 100%

███████████████ | **24%**

*7. Is this service member's current marital status SINGLE? (this includes divorced, separated, and never married/single)

⚪ Yes

⚪ No

Next

Internet | Protected Mode: On   100%

26%

✱8. Does the so-called Don't Ask Don't Tell policy prevent this service member's marriage from being recognized by the U.S. military?

◯ Yes

◯ No

Next

Done   Internet | Protected Mode: On   100%

Appendix G

Screen shot of Notice of Ineligibility

Thank you for your time and interest in this study. Unfortunately, your answers to one or more of the previous questions indicate you are not eligible to participate.

You are invited to share this survey on Facebook or by forwarding the survey link (https://www.surveymonkey.com/s/PFV2LF8) via email.

To exit, simply close the browser window.

Next

Done   Internet | Protected Mode: On   100%

Appendix H

Screen shots of Electronic Informed Consent Letter

Loved Ones of Service Members and Military Deployments   Exit this survey

9. Informed Consent

| | 29% |

You are eligible to participate in this study.

BEFORE YOU BEGIN, YOU MUST review the informed consent letter and referral sources below and respond to the electronic consent statement at the bottom of this page.

Click here to open the informed consent document in a new window to print or save it for your records.

Dear participant,

My name is Sarah Keyes and I am a military sibling and graduate student at Smith College School for Social Work. I am conducting research to learn more about the experience for loved ones of their service member's deployment to Iraq or Afghanistan. This study will be presented as a thesis and may be used in possible future presentations to mental health clinicians, researchers, or policy makers or publications on the topic.

If you choose to participate, I will ask you to fill out an anonymous on-line survey. The survey will ask open-ended and multiple-choice questions about the impact on you of having a loved one deploy to Iraq or Afghanistan, the ways you cope with this experience, and your needs for resources and other supports relevant to this experience. The survey will also include some general questions about you and this service member. I estimate that the total amount of time you will need to complete this survey is around 20-30 minutes.

Participation in this study may bring up strong feelings related to your experience of having a loved one sent on deployment. In case you feel the need for additional support after participating in this study, I have provided a list of mental health resources at the bottom of this letter.

Although there will be no financial benefit for taking part in this study, your participation will allow you to share your valuable knowledge and unique perspective on the military deployment experience. It is my hope that mental health workers, policy makers, and social services administrators will learn from this study how these deployments impact you and others like you. In turn, I hope that this deeper understanding will lead to improved clinical practice methods, increased access to services, informed policy, and further research.

Your confidentiality will be protected in a number of ways as consistent with Federal regulations. You should leave out identifying information about yourself and your service member from your answers to survey questions. By not including identifying information in your survey responses, you will ensure that your responses will be anonymous since the survey software does not collect names, e-mail addresses, IP addresses, or any other identifying information. Should you need to contact me regarding this study, you will not need to give your name. Once you have submitted your survey, your responses will be password-protected and available only to me. My research advisor will have access to the data after any possible identifying information has been removed. In any presentations or publications, data will be presented as a whole to disguise participant identities and when brief illustrative quotes or vignettes are used, they will be carefully concealed. Survey response data will be stored on encrypted, password-protected removable media and stored in a locked and secure environment for three years following the completion of the research, consistent with Federal regulations. After that time, they will be destroyed or continue to be kept secured as long as I need them for research purposes. Once I no longer need the data, I will destroy them.

88%

As a voluntary participant, you have the right to withdraw from the survey without penalty prior to beginning or before you have submitted your responses. Further, you may choose not to answer any question in the survey simply by skipping it. It will be impossible for you to withdraw from this study once you submit your survey as I will not be able to identify your survey responses among others' responses in my study.

If you have any questions about your rights or any aspects of this study, you may contact me at or the Chair of the Smith College School for Social Work Human Subjects Review Committee at (413) 585-7974.

Thank you for your interest in this study.

Sincerely,

Sarah Keyes

Referral Sources

1) Mental Health America – a leading advocacy organization addressing the full spectrum of mental and substance use conditions and their effects nationwide by informing, advocating, and enabling access to quality behavioral health services for all Americans

Website: Click here

Phone (in crisis): 1-800-273-TALK or TTY: 1-800-799-4889

Phone: (800) 969-6642

2) Give An Hour – a non-profit organization offering free mental health services to anyone who is or has been affected directly or indirectly (through a relationship with someone in the U.S. military) by the current conflicts in Iraq and Afghanistan

Website: Click here

3) Substance Abuse and Mental Health Services Administration (SAMHSA) – Federal agency charged with reducing the impact of substance abuse and mental illness on America's communities

Website: Click here

Phone: 24-Hour Toll-Free Treatment Referral Helpline at 1-800-662-HELP (1-800-662-4357)

✱**8. Electronic Consent:**

BY CHECKING "I AGREE" BELOW, YOU ARE INDICATING THAT YOU HAVE READ AND UNDERSTOOD THE INFORMATION ABOVE AND THAT YOU HAD AN OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU VOLUNTARILY AGREE TO PARTICIPATE IN THE STUDY.

○ I agree
○ I DO NOT agree

Appendix I

Screen shots of Electronic Informed Consent Letter, as opened in new window

with Federal regulations. After that time, they will be destroyed or continue to be kept secured as long as I need them for research purposes. Once I no longer need the data, I will destroy them.

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Sincerely,

Sarah Keyes

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   Website: www.mentalhealthamerica.net/go/go/find_therapy
   Phone (in crisis): 1-800-273-TALK or TTY: 1-800-799-4889
   Phone: (800) 969-6642

2) Give An Hour – a non-profit organization offering free mental health services to anyone who is or has been affected directly or indirectly (through a relationship with someone in the U.S. military) by the current conflicts in Iraq and Afghanistan
   Website: http://www.giveanhour.org/skins/gah/display_visitors.aspx?ModuleID=765D6F48-D494-47C0-BFA3-45ACEE60EE00&mode=User&action=provider_search_basic

3) Substance Abuse and Mental Health Services Administration (SAMHSA) – Federal agency charged with reducing the impact of substance abuse and mental illness on America's communities
   Website: http://store.samhsa.gov/mhlocator
   Phone: 24-Hour Toll-Free Treatment Referral Helpline
   at 1-800-662-HELP (1-800-662-4357)

BY CHECKING "I AGREE", YOU ARE INDICATING THAT YOU HAVE READ AND UNDERSTOOD THE INFORMATION ABOVE AND THAT YOU HAD AN OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU VOLUNTARILY AGREE TO PARTICIPATE IN THE STUDY.

Appendix J

Screen shots of Survey Instrument

12. Section 1: General Information about your Service Member

	40%

This section will ask you general questions about YOUR SERVICE MEMBER.

If you have been impacted by the military service of more than one person, please choose the person whose service has impacted you the MOST. Please keep the same person in mind as you respond to this entire survey.

You may be unsure about the answers to some of the questions in this section. Do you best to answer them with what you know.

10. Which of the following describes this service member's status and branch of the Armed Services?

- ◌ Army (full-time active duty)
- ◌ Army Reserve
- ◌ Army National Guard
- ◌ Navy (full-time active duty)
- ◌ Navy Reserve
- ◌ Marine Corps (full-time active duty)
- ◌ I am not sure (please explain)

- ◌ Marine Corps Reserve
- ◌ Air Force (full-time active duty)
- ◌ Air Force Reserve
- ◌ Air National Guard
- ◌ Coast Guard (full-time active duty)
- ◌ Coast Guard Reserve

[Next]

Done   Internet | Protected Mode: On   100%

140

13. Section 1: General Information about Service Member (cont'd)

43%

11. What is/was this person's highest rank?

Private
Private First Class
Specialist
Corporal
Sergeant
Staff Sergeant
Sergeant First Class
First Sergeant
Sergeant Major
2nd Lieutenant
1st lieutenant
Captain
Major
Lieutenant Colonel
Colonel
Brigadier General
Major General
Lieutenant General
General
Warrant Officer
Chief Warrant Officer

Next

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Create your own free online survey now!

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`██████████████████████████` 46%

10. What is/was this person's highest rank?

```
[                    ▼]
──────────────────────────
Seaman
Petty Officer Third Class
Petty Officer Second Class
Petty Officer First Class
Chief Petty Officer
Senior Chief Petty Officer
Master Chief Petty Officer
Ensign
Lieutenant Junior Grade
Lieutenant
Lieutenant Commander
Commander
Captain
Rear Admiral
Vice Admiral
Admiral
Warrant Officer
Chief Warrant Officer
```

Next

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142

12. Section 1: General Information about Service Member

| ██████████████████████████ | **51%** |

10. What is/was this person's highest rank?

[dropdown]

Private
Private First Class
Lance Corporal
Corporal
Sergeant
Staff Sergeant
Gunnery Sergeant
Master Sergeant
Sergeant Major
2nd Lieutenant
1st Lieutenant
Captain
Major
Lieutenant Colonel
Colonel
Brigadier General
Major General
Lieutenant General
General
Warrant Officer
Chief Warrant Officer

Next

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Create your own free online survey now!

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49%

10. What is/was this person's highest rank?

Airman
Airman First Class
Senior Airman
Staff Sergeant
Technical Sergeant
First Sergeant
Master Sergeant
Senior Master Sergeant
Chief Master Sergeant
Second Lieutenant
First Lieutenant
Captain
Major
Lieutenant Colonel
Colonel
Brigadier General
Major General
Lieutenant General
General

Next

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144

14. Section 1: General Information about Service Member (cont'd)

54%

12. How long has this person been a member of the Armed Forces?

Please answer in MONTHS (for instance, for someone who has served 2 years and 2 months, you would enter 26).

13. How many times has this service member deployed to Iraq and/or Afghanistan, in total?

- ⚪ 1
- ⚪ 2
- ⚪ 3
- ⚪ 4
- ⚪ 5

- ⚪ 6
- ⚪ 7
- ⚪ 8
- ⚪ 9
- ⚪ 10 or more

14. What is this service member's current age? (in years)

15. What is this service member's gender?

Woman
Man
Other

Next

Done   Internet | Protected Mode: On   100%

57%
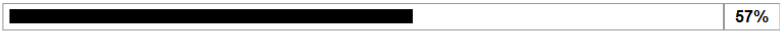
The next question asks about how you are CONNECTED to this service member.

16. Please finish the sentence: I am this service member's _____.

☐ Unmarried partner   ☐ Sibling   ☐ Roommate

☐ Spouse   ☐ Grandparent   ☐ Classmate

☐ Girlfriend/Boyfriend   ☐ Aunt/Uncle   ☐ Co-worker

☐ Parent   ☐ Cousin   ☐ Ex-spouse/ex-partner

☐ Child   ☐ Niece/Nephew   ☐ Friend

☐ Grandchild   ☐ Neighbor   ☐ Other

Next

Done   Internet | Protected Mode: On   100%

146

16. Section 1: General Information about Service Member (cont'd)

60%

17. For how long have you known the service member? (in years)

18. Do you and this service member live in the same household?

- Yes
- No

19. Has this service member returned from his or her most recent deployment to Iraq and/or Afghanistan?

- Yes
- No

Next

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147

63%

20. How long has it been since this service member returned from his or her most recent deployment to Iraq or Afghanistan? (in months)

Next

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18. Section 2: Impact and Experiences

66%

The questions in this section ask about the IMPACT on you of experiencing a loved one deploy to Iraq or Afghanistan.

21. Describe the nature of the effect of this experience on your:

	Very negative	Somewhat negative	No effect	Somewhat positive	Very positive	N/A
Stress level	○	○	○	○	○	○
Sleep	○	○	○	○	○	○
Self-esteem	○	○	○	○	○	○
Mood	○	○	○	○	○	○
Physical health	○	○	○	○	○	○
Mental health	○	○	○	○	○	○
Relationship with this service member	○	○	○	○	○	○
Personal relationships, in general	○	○	○	○	○	○
Work performance	○	○	○	○	○	○
Finances	○	○	○	○	○	○
Legal issues	○	○	○	○	○	○
How you communicate with others	○	○	○	○	○	○

Next

Done | Internet | Protected Mode: On | 100%

149

| ████████████████████████████ | 69% |

PERCEIVED STRESS SCALE

The questions in this scale ask you about your feelings and thoughts DURING THE LAST MONTH. In each case, you will be asked to indicate HOW OFTEN you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

22. In the last month, how often have you:

	Never	Almost never	Sometimes	Fairly often	Very often
Been upset because of something that happened unexpectedly	○	○	○	○	○
Felt that you were unable to control the important things in your life	○	○	○	○	○
Felt nervous and "stressed"	○	○	○	○	○
Felt confident about your ability to handle your personal problems	○	○	○	○	○
Felt that things were going your way	○	○	○	○	○
Found that you could not cope with all of the things you had to do	○	○	○	○	○
Been able to control irritations in your life	○	○	○	○	○
Felt that you were on top of things	○	○	○	○	○
Been angered because of things that happened that were outside of your control	○	○	○	○	○
Felt difficulties were piling up so high that you could not overcome them	○	○	○	○	○

10-item Perceived Stress Scale (PSS-10). Cohen, S., Kamarck, T. & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24,386-396.
Permission for use of this scale is not necessary when use is for academic reseach or educational purposes.

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71%
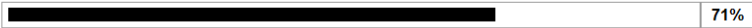
22. What else would you like mental health workers, policy makers, and social service administrators to know about how the experience of having a loved one deploy to Iraq and/or Afghanistan has IMPACTED you?

Please elaborate and provide examples, if possible.

Hold your thoughts on how you cope and your needs for resources. You will be able to comment on each of those later in the survey.

Next

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151

21. Section 3: Coping

	74%

The questions in this section ask about how you COPE, or deal, with having a loved one deploy to Iraq and/or Afghanistan.

COPING SELF-EFFICACY SCALE

24. When things aren't going well for you, or when you're having problems, how CONFIDENT or certain are you that you CAN DO the following?:

	Cannot do at all					Moderately certain can do					Certain can do
Break an upsetting problem down into smaller parts	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Sort out what can be changed, and what cannot be changed	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Make a plan of action and follow it when confronted with a problem	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Leave options open when things get stressful	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Think about one part of the problem at a time	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Find solutions to your most difficult problems	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Make unpleasant thoughts go away	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Take your mind off unpleasant thoughts	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Stop yourself from being upset by unpleasant thoughts	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Keep from feeling sad	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Get friends to help you with the things you need	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Get emotional support from friends and family	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡
Make new friends	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡	◡

Adapted from Chesney, N., Neilands, T., Chambers, D., Taylor, J. & Folkman, S. (2006). A validity and reliability study of the coping self-efficacy scale. British Journal of Health Psychology, 11(3), 421-437.

Done   Internet | Protected Mode: On   95%

	77%

25. I have used the following methods to cope, or deal, with the experience of having a loved one deploy to Iraq and/or Afghanistan:

(Please check all that apply)

☐ Talking to a therapist/mental health worker
☐ Calling upon my faith/spirituality
☐ Educating myself on relevant topics
☐ Communicating with the service member
☐ Talking to other service members

☐ Talking to the loved ones of other service members
☐ Relying on friends
☐ Relying on family
☐ Joining a group
☐ Keeping busy

☐ Drinking alcohol
☐ Learning new ways to deal
☐ Exercising
☐ Avoiding thinking or talking about the impact
☐ Doing drugs

☐ Other (please specify)

[   ]

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79%

25. What else would you like mental health workers, policy makers, and social service administrators to know about HOW YOU DEAL with the experience of having a loved one deploy to Iraq and/or Afghanistan?

Please elaborate and provide examples, if possible.

Hold onto your thoughts about your needs for resources. You will be able to comment on this later in the survey.

Next

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24. Section 4: Needs Assessment

83%

The questions in this section ask about your NEEDS for services, resources and other supports to help you with the experience of having a loved one deploy to Iraq and/or Afghanistan.

27. How likely is it that you would USE the following resources and other supports to help you with this experience?

	Very unlikely	Somewhat unlikely	Neutral	Somewhat likely	Very likely
Legal advice/help with legal issues	○	○	○	○	○
Financial advice/help with financial issues	○	○	○	○	○
Help with drug issues	○	○	○	○	○
Talking to a therapist/mental health worker	○	○	○	○	○
Calling upon my faith/spirituality	○	○	○	○	○
Educating myself on relevant topics	○	○	○	○	○
Communicating with the service member	○	○	○	○	○
Talking to other service members and/or their loved ones	○	○	○	○	○
Joining a group	○	○	○	○	○
Help with drinking/alcohol issues	○	○	○	○	○
Learning new ways to deal with my problems	○	○	○	○	○
Exercising	○	○	○	○	○
Help with my personal needs/problems	○	○	○	○	○
Opportunities for socializing	○	○	○	○	○
Tangible support (money, shelter, food, clothing)	○	○	○	○	○
Information from the military directly	○	○	○	○	○
Health care (for physical health issues)	○	○	○	○	○
Opportunity to meet others in a similar situation	○	○	○	○	○
Employment assistance	○	○	○	○	○

Done — Internet | Protected Mode: On — 93%

86%

This question aims to understand what factors influence your choices about seeking services, resources and other supports.

28. In the past, others have identified the following list of factors as influencing their decisions about seeking services, resources and other supports.

Please review the list and decide how important each factor would be for you when making similar decisions.

	Not important	Neither important nor unimportant	Important	Very important	Extremely important
Availability of evening and/or weekend hours	○	○	○	○	○
Childcare provided on-site	○	○	○	○	○
Convenience to public transportation	○	○	○	○	○
Reimbursement of transportation costs	○	○	○	○	○
Availability of free parking	○	○	○	○	○
Meal provided	○	○	○	○	○
Travel distance from my home	○	○	○	○	○
Amount of time required/time commitment (not including travel time)	○	○	○	○	○

Next

Done | Internet | Protected Mode: On | 100%

156

89%

29. To what degree do the following phrases describe your VALUES and PREFERENCES when it comes to accessing services, resources, and other supports to help you with this experience?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I prefer to share my problems with people I know	○	○	○	○	○
I am not comfortable talking in front of groups	○	○	○	○	○
I prefer to share my problems with people who have been through similar experiences	○	○	○	○	○
I am concerned about running into someone I know	○	○	○	○	○
I prefer not to access services from a government-run agency	○	○	○	○	○
I prefer to access services in the same place as the rest of my family	○	○	○	○	○
I prefer to access services using technology (for example, by telephone, e-mail, webcam, chat) rather than in-person	○	○	○	○	○
I prefer to access services in a location where I am comfortable (for example, my home, my church, a local community center)	○	○	○	○	○
I prefer to access services directly through the military and/or Veterans Affairs (VA)	○	○	○	○	○
I prefer to solve my problems on my own	○	○	○	○	○

Next

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157

91%

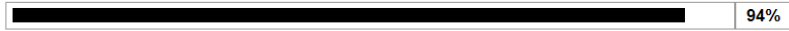**29. What else would you like mental health workers, policy makers, and social service administrators to know about your NEEDS for resources, services, and other supports to help with the experience of having a loved one deploy to Iraq and/or Afghanistan?**

Please elaborate and provide examples, if possible.

Next

Internet | Protected Mode: On   100%

158

94%

31. What is your race/ethnicity? (Please check all that apply)

☐ White   ☐ American Indian and Alaska Native

☐ Black or African American   ☐ Asian

☐ Native Hawaiian and Other Pacific Islander   ☐ Hispanic, Latino, or Spanish origin

☐ Other (please specify)

[   ]

32. What is the highest level of education you have achieved?

[▼]

No high school
Some high school
High school graduate/earned GED
Some college, no degree
Associates degree
Bachelor's degree
Master's degree
Professional degree
Doctoral degree

[Next]

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29. Section 5: General Information about You

97%

Please answer the following general questions about YOU.

33. What is your age? (in years)

34. What is your marital status?

Married
Divorced
Separated
Single/Never married
Widowed

35. What is your gender?

Next

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Create your own free online survey now!

Internet | Protected Mode: On   100%

100%
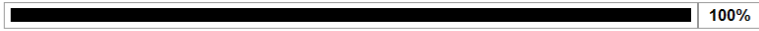
You have now finished answering the survey questions.

To submit your answers, *click Done at the bottom of this page.*

Done

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Create your own free online survey now!

Internet | Protected Mode: On   100%

161

Loved Ones of Servicemembers and Military Deployments

Thank you for participating in this survey! Your time and interest are very much appreciated.

You are invited to share this survey with others on Facebook or by forwarding the survey link (https://www.surveymonkey.com/s/PFV2LF8) via email.

Done

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Appendix K

Approval Letter from Human Subjects Review Board

SMITH COLLEGE
School for Social Work

Smith College
Northampton, Massachusetts 01063
T (413) 585-7950
F (413) 585-7994

February 28, 2011

Sarah Keyes

Dear Sarah,

Your revised materials have been reviewed and all is in order. Thank you very much for your very helpful explanatory letter. I think your change in your recruited sample makes a lot of sense.

Please note the following requirements:

Consent Maintaining Data: You must retain all data and other documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Good luck with this very valuable and certainly timely study.

Sincerely,

Ann Hartman, D.S.W.
Chair, Human Subjects Review Committee

CC: Elizabeth Irvin, Research Advisor

163

Perceived Stress Scale, Scoring Instructions, and Permissions

Perceived Stress Scale- 10 Item

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate with a check how often you felt or thought a certain way.

1. In the last month, how often have you been upset because of something that happened unexpectedly?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

2. In the last month, how often have you felt that you were unable to control the important things in your life?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

3. In the last month, how often have you felt nervous and "stressed"?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

4. In the last month, how often have you felt confident about your ability to handle your personal problems?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

5. In the last month, how often have you felt that things were going your way?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

6. In the last month, how often have you found that you could not cope with all the things that you had to do?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

7. In the last month, how often have you been able to control irritations in your life?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

8. In the last month, how often have you felt that you were on top of things?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

9. In the last month, how often have you been angered because of things that were outside of your control?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
___0=never   ___1=almost never ___2=sometimes   ___3=fairly often ___4=very often

PSS Scoring

THIS STUDY USES THE PSS-10.

PSS-10 scores are obtained by reversing the scores on the four positive items, e.g., 0=4, 1=3, 2=2, etc. and then summing across all 10 items. Items 4,5, 7, and 8 are the positively stated items.

PSS-4 scores are obtained by reverse coding items # 2 and 3.

PSS-14 scores are obtained by reversing the scores on the seven positive items, e.g., 0=4, 1=3, 2=2, etc., and then summing across all 14 items. Items 4, 5, 6, 7, 9, 10, and 13 are the positively stated items.

The PSS was designed for use with community samples with at least a junior high school education, The items are easy to understand and the response alternatives are simple to grasp. Moreover, as noted above, the questions are quite general in nature and hence relatively free of content specific to any sub population group. The data reported in the article are from somewhat restricted samples, in that they are younger, more educated and contain fewer minority members than the general population. In light of the generality of scale content and simplicity of language and response alternatives, we feel that data from representative samples of the general population would not differ significantly from those reported in the article.

More information about obtaining scores for the 4, 10, and 14-item versions of the scale is linked here

Page updated Feb. 23, 2010

Permissions

Permission for use of scales is not necessary when use is for academic reseach or educational purposes.

This scale can be found in:

Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396. Link to full-text (pdf)

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapam & S. Oskamp (Eds.), The social psychology of health: Claremont Symposium on applied social psychology. Newbury Park, CA: Sage. Link to full-text (pdf) updated July 8, 2008

Appendix M

Coping Self-Efficacy Scale and Scoring Instructions

Coping Self-Efficacy Scale

> When things aren't going well for you, or when you're having problems, how confident or certain are you that you can do the following:

Cannot do at all	**Moderately certain can do**	**Certain can do**
0	**5**	**10**

For each of the following items, choose a number from 0-10, using the scale above.

When things aren't going well for you, how confident are you that you can:

1. Break an upsetting problem down into smaller parts
2. Sort out what can be changed, and what cannot be changed
3. Make a plan of action and follow it when confronted with a problem
4. Leave options open when things get stressful
5. Think about one part of the problem at a time
6. Find solutions to your most difficult problems
7. Make unpleasant thoughts go away
8. Take your mind off unpleasant thoughts
9. Stop yourself from being upset by unpleasant thoughts
10. Keep from feeling sad
11. Get friends to help you with the things you need
12. Get emotional support from friends and family
13. Make new friends

Scoring: An overall CSES score is created by summing the item ratings.
Our standard scoring rule with summated rating scale scores is that respondents must answer at least 80% of the scale items. For respondents missing an item or items, we estimate an individual's score for the missing item(s) by adding in their mean for the items that they answered for each item that they skipped, resulting in a "corrected sum."