LIFE ON THE HOME FRONT: ADAPTING THE FAMILY BELONGING SCALE – REVISED FOR USE WITH MILITARY FAMILIES

by
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Abstract

When a caregiver is deployed, the strain of this separation and subsequent reintegration can take an emotional toll on the caregiver left behind, the deployed parent, and the family unit. Although recent research illustrates the unique and complex experiences of family members on the home front, less is known about how family and service members view their fit or sense of belonging within the family and how their sense of belonging is affected by stressors associated with deployment. Despite a growing body of literature about military families, and increasing evidence for the importance of familial support, few assessment measures specific to family dynamics have been validated for use with military populations. In order to gain a better understanding of family members' sense of belonging and factors related to higher and lower levels of belonging, this research attempted to provide validity evidence for the Family Belonging Scale-Revised for use with individuals in military families.

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Chapter 1: Overview

As of 2009, more than two million service members have deployed to Iraq and Afghanistan in support of the Global War on Terror (Department of Defense, 2010) with families experiencing over 3.3 million deployments (Siegel & Davis, 2013). When a service member is deployed, the remaining family members experience their own form of deployment in which they must manage a host of emotions, responsibilities, and uncertainties for the duration of the service member's absence. The strain of military deployment can take an emotional toll on the caregiver left behind, the deployed service member, and the family unit (Allen, Rhoades, Stanley, & Markman, 2011; Dekel & Monsoon, 2010; Kelley, 1994; Mmari, Roche, Sudhinaraset, & Blum, 2009). Family and individual functioning can be strained by long periods of separation, intermittent single parenting interrupted by periodic reintegration, frequent relocations, financial strain, and the need to cope with service members' physical and/or mental injuries (Chartrand, Frank, White, & Shope, 2008; Savitsky, Illingworth, & DuLaney, 2009). In many instances, a traumatized service member is greeting a traumatized family (Milliken, Auchterlonie, & Hoge, 2007). For example, the service member may contend with feelings of anxiety, have difficulty connecting to others, experience sleep problems, and miss the structure and solidarity of military service, while family members struggle to manage their levels of distress as they attempt to reintegrate the changed service member into established routines and rituals (Faber, Willerton, Clymer, Macdermid, & Weiss, 2008). Further, symptoms of numbing and avoidance may impede service members' efforts to fully reintegrate into the family and increase a sense of uncertainty in family members (Dekel & Monson, 2010; Faber et al., 2008; Galovski, & Lyons, 2004). Spouses of military members have reported that deployments result in

loss of emotional support, loneliness, role overload, and role shifts (Vormbrock, 1993; Wood, Scarville, & Gravino, 1995).

As emotional expression is key for developing and maintaining healthy, close relationships (Ainsworth, 1989; Baumeister & Leary, 1995), service members returning with blunted affect and avoidant behaviors may risk decreasing levels of attachment to children and partners, a fundamental element of belonging (Baumeister & Leary). A feeling of a sense of belonging, or knowing that one is cared for, accepted, and fits with a group or system, is essential to the construction of a sense of identity, an important developmental task for individuals (Erikson, 1964). Because the family is an overarching factor in one's life from birth, often the family tends to be the first place one experiences belonging, and in some cases, not belonging (Erikson). For families undergoing frequent structural transitions and boundary renegotiation, such as military families, developing a sense of belonging, although necessary, may be a complex process. Additionally, the difficulties experienced during deployment and reintegration may create a sense of ambiguous loss, in which family members are unclear of the service member's role within the family (Faber et al., 2008). Greater feelings of ambiguous loss can lead to an exacerbated stress response among family members, increased confusion regarding roles and relationships in the family (i.e., who belongs), and ultimately, dissolution of the family (Faber et al., 2008).

Despite current research efforts to understand and examine the experiences and needs of military families (DeVoe &Ross, 2012; Wadsworth et al., 2013; Riggs & Riggs, 2011), little is known about how family and service members view their fit or sense of belonging within the family and what factors are associated with higher and lower levels of belonging. The present study aims to begin validating a measure of family belonging for use with individuals in military

families and develop a more comprehensive understanding of factors that contribute to a high or low sense of belonging.

Characteristics of Today's Military

As of November 2006, approximately 1.4 million troops have been deployed to Iraq and Afghanistan (MHAT, 2006) and over half of the Active Duty force (61.7%) is married and/or has a child (Department of Defense [DoD] Demographics Report, 2010; Office of the Deputy Under Secretary of Defense, 2011). In addition, approximately 44% of active duty service members (n=625,363) have children who are either minor dependents under 20 years of age or who are 22 years of age or younger and enrolled full-time in school, and there are currently fewer active duty members than their associated family members (DoD, 2010). At present, the Department of Defense is responsible for more dependents than in previous years, and the number is growing. In addition to the overall increase in military dependents, the recent operations in Iraq and Afghanistan lend themselves to a unique set of stressors that have not been present in previous wars. Additionally, current demands on the U.S. military have been more pronounced than at any time since the Vietnam War (Hosek, Kavanagh, & Miller, 2006).

Deployments to Iraq and Afghanistan (Operation Iraqi Freedom [OIF] and Operation Enduring Freedom [OEF], respectively) have inherently different characteristics from previous deployments of the U.S. military (Duckworth, 2009) and the increase in troops overseas for OIF and OEF has resulted in the largest number of troops returning from a war zone since the Vietnam War (Hoge et al., 2004). With the mobilization of troops to Iraq and Afghanistan, service members have been exposed to hazardous combat zones more frequently and for longer periods of time (Powers, 2003). More specifically, the use of improvised explosive devices and roadside bombs has placed troops at a heightened risk for serious injury (Carlock, 2007; Chandra

et al., 2011). Gawande (2004) indicated that service members are not only at increased risk for death, but they are also in jeopardy of returning home after sustaining significant physical and psychological injuries (e.g., traumatic brain injury, spinal cord injuries, post traumatic stress disorder, burns, loss of limbs, hearing loss, and/or neurological deficits). Whereas individuals in previous wars would have died from such injuries, service members in Iraq and Afghanistan are surviving their injuries at far greater rates because of advances in combat medicine and improvements in armor. Further, a 2008 Congressional Research Service Report stated that while the number of documented fatalities for both OEF and OIF is 4,644, the number of troops wounded in action grew exponentially with 32,539 combat-related injuries reported (Fisher, 2008). Although the likelihood of survival is increased, service members may continue to live with permanent disabilities requiring comprehensive, lifelong care (Badr, Barker, & Milbury, 2011; Gawande, 2004). These demands and stressors not only have implications for the service member but also for the family structure and dynamics throughout the deployment cycle and especially during reintegration. In addition to more traditional deployment concerns, these multiple, long-term, and high-risk deployments are a hallmark for the current plight that service members and their families face.

Deployment and Modern Military Families

The process of deployment places unique and severe demands on military families, and with increased military commitments in multiple locales, military families have been confronted with deployments in more rapid succession (Chartrand, Frank, White, & Shope, 2008; Duckworth, 2009; Savitsky, Illingworth, & DuLaney, 2009). Military separations present families with many stressors from the disruption in routine that accompanies deployment, increased caretaking and household responsibilities, disjointed relationships, decreased

emotional support, and the redistribution of roles and responsibilities upon reunion (Allen et al., 2011; Morse, 2006). In many situations, it is unknown when the service member's deployment will end, increasing the anxiety and uncertainty for military families. Additionally, whereas previous deployments may have allowed for an 18-month to two-year period between deployments, some military families face another deployment of the service member within 9 – 12 months of the member's return, with deployments lasting from 12 – 15 months (DoD Mental Health Task Force, 2007). During this time, the family endures a series of social and emotional stage-like shifts, also known as the deployment cycle (Morse, 2007). Each stage is characterized by a different set of challenges to the individuals and the family system which include, but are not limited to, needs for emotional detachment, changes in family roles and routines, emotional destabilization, and reintegration of the returning parent. Overall, Lincoln, Swift, and Shorteno-Fraser (2008) note that "the effect of parental deployment on families and children is of mounting concern as tours lengthen and multiple deployments to combat zones increase" (p. 984).

Effects on the family environment. Military personnel and their families face stresses like repeated relocations and separations, prolonged deployments**,** and combat-related violence (Karney & Crown, 2007; Military Family Resource Center, 2000). Additionally, individuals within the family are likely to experience varying degrees of emotional connectedness and role ambiguity that may further affect the adjustment process (Boss, 2002; Carroll, Olson, & Buckmiller, 2007; Faber et al, 2008; Logan, 1987; Morse, 2006). Taft, Schumm, Panuzio, and Proctor (2008) reported that combat exposure can lead to poorer family functioning and Lincoln**,** et al. (2008) indicated that having a parent sent to an active combat zone with an undetermined return date may rank as one of the most stressful events of childhood. Further, Jordan, Marmar,

Fairbank, Schlenger, Kulka, Hough, et al. (1992) noted that combat-related trauma is more strongly related to poor family functioning than other individual and familial factors, and children whose parents have unresolved Post Traumatic Stress Disorder (PTSD) experience more affect dysregulation, disrupted attachments, and erratic parenting (Basham, 2008; Fitzsimons & Krause-Parello, 2009). Researchers have shown that PTSD is associated with increased interpersonal problems and significant issues with functioning in military families (Carroll, Rueger, Foy, & Donahoe, 1985; Jordan et al. 1992; Solomon, Mikulincer, Freid, & Wosner, 1987) and higher rates of PTSD have been found in military families exhibiting high conflict, low expressiveness, and lower levels of cohesion (Taft, Schumm, Panuzio, & Proctor, 2008; Westerlink & Giarratano, 1999; Zerach, Solomon, Horesh, & Ein-Dor, 2012).

A caregiver's ability to cope and level of distress associated with deployment is a significant predictor of the child or adolescent's ability to adjust and be resilient (Basham, 2008; Flake, Davis, Johnson, & Middleton, 2009). More specifically, Chandra, Lara-Cinisomo, & Jaycox et al. (2010) identified that the mental health of the non-deployed caregiver was significantly associated with the youth's overall well-being, especially with regard to peer and family functioning, emotional adjustment, and academic engagement. Even so, non-deployed caregivers may experience increased amounts of distress as they attempt to adjust to being a single parent in addition to managing their own emotions and reactions to the separation (Allen et al., 2011). Rentz, Marshall, Loomis, Casteel, Martin, and Gibbs (2007) noted that this stress is associated with an increased likelihood that the caregiver will either neglect or abuse the child; incidence rates of childhood maltreatment among military families have increased post 9/11. Further, Rentz et al. found that maltreatment rates for military families in Texas doubled in the year following 9/11 whereas such rates for civilian families remained the same, and that prior to

January 2003, maltreatment rates for military families were lower than rates in civilian families, which the researchers attributed to the increase in deployment rates post-9/11.

Up to one-third of youth between the ages of 5 and 12 who have had a parent deployed exhibited a higher likelihood of problems with social and emotional development, and children with a male caregiver deployed are more likely to have a behavior disorder (Flake et al., 2009). Further, Chandra et al. (2010) and Flake et al. (2009) found that older children exhibited more difficulties with deployment and reintegration. A review of the extant literature revealed that adolescents from military families may be particularly vulnerable. Chandra et al. (2010) reported that girls experience more challenges during their parent's deployment and reintegration. Reed, Bell, and Edwards (2011) found that adolescent girls whose parent was deployed to a combat zone exhibited depressed mood and thoughts of suicide, and adolescent boys were at increased risk of impaired well-being. Moreover, Randell, Wang, Herting, and Eggert (2006) noted that increased levels of suicide were associated with perceived conflict with parents and family depression, whereas decreased levels of risk were associated with family support. In short, more military families are facing more stressors than ever before, and youth in these families may be especially vulnerable because these hardships are being compounded with normal developmental strains they already experience. Further, if family members are experiencing their own challenges and adjustment issues, resulting in lower levels of cohesion and support, family members who are already vulnerable may be at heightened risk for adverse effects (Zerach et al., 2012).

Reintegration challenges. When a service member returns, there is a process of reintegration and although the period of deployment is rife with its own socioemotional and systemic challenges, this reintegration process can also be quite trying and complex (Bowling &

Sherman, 2008; Zerach, et al. 2012). Moreover, efforts to successfully reintegrate may be hindered by life changes experienced by all members of the family (e.g., personal growth and development), multiple deployment stressors placed on the service member and family, and the physical and/or psychological trauma that a service member may endure (Huebner et al., 2007; Zerach et al, 2012). Each of these factors not only affects reintegration efforts, but can also have a profound effect on the family environment, which can play a critical role in fostering the health and well-being of the individuals within it (Johnson, LaVoie, & Mahoney, 2001).

Mmari, Roche, Sudhinaraset, and Blum (2009) stated that the entire household routine changes when parents return; family members must get reacquainted with the service member upon return from deployment. Mmari et al. noted that one adolescent reported that it was no longer possible for her to talk to friends at a certain hour of the evening or participate in the extracurricular activities she has engaged in during the 18-month deployment because her father was home. Similarly, Mmari et al. reported a number of adolescents felt pressured to spend all of their free time with their returned parent despite many feeling that they had nothing to talk about because they "barely knew anything about him" (p. 465).

Further, the longer the service member was away, the more difficult the reunion may be in that many developmental changes are occurring in children and adolescents during the months of deployment. Huebner et al. (2007) noted that teens felt as though the returning parent often tried to treat them as if they were the same age and maturity level as when the parent left; additionally, adolescents voiced frustrations over not being given credit for all of the responsibilities they had undertaken while their parent was away. Not only does the family have to readjust their established household roles, but the service member must also reintegrate his or

her combat identity with his or her civilian identity, which is inevitably a difficult process (Faber et al., 2008). Basham (2008) noted:

> When a warrior returns home, he or she returns a changed individual. He may have suffered profound disillusionment with the senselessness and immorality of some combat-related actions and the political decisions affecting war…they have also gained a whole new set of skills…that do not necessarily serve them well in coping with day-to-day stressors of life back home. (p.87)

Galovski and Lyons (2004) cite a qualitative study by Frederickson et al. (1996) in which five veterans' wives reported their experiences with deployment and post-deployment reintegration. Findings from this study indicate that veterans maintained an authoritarian and dominant control over the household and their emotional and behavioral withdrawal prohibited the development of real communication, affection, and trust between the veterans and their family members. Further, a review of the literature revealed that veterans' PTSD following exposure to combat violence affects veterans' familial relationships and the psychological adjustment of family members (Basham, 2008; Figley, 1998; Galovksi & Lyons, 2004). Manguno-Mire et al. (2007) reported that partners of veterans suffering from combat-related PTSD may experience significant levels of emotional distress themselves. For example, untreated service members returning with increased anxiety, panic attacks, and intermittent and explosive anger laid the groundwork for secondary or vicarious trauma in family members (Figley, 1989; Riggs, 2000). Additionally, couples experiencing trauma often report difficulties with adjusting to the many shifts in roles and balances of power during decision making or problem solving. Basham (2008) explained the functionality of suppressing emotions and restricting communications that have served these individuals well in combat but are less

conducive to healing and functioning in civilian life. As a result of this distancing, children and family members feel estranged from each other (Samper, Taft, King, & King, 2004).

Ambiguous Loss. A service member's homecoming, while a cause for celebration, can be a stressful time for families and may harbor a series of complex issues (e.g., developmental changes, physical injuries, psychological injuries, and role renegotiation). Unfortunately, when a service member departs, time does not stand still and individuals must continue with their lives in absence of key family members. During this period of separation, family members assume new roles and responsibilities, children grow and develop, and service members undergo mental and possibly physical changes of their own (Basham, 2008; Faber, et al., 2008). Upon reunion, service members and families contend with the illusion of "picking up where they left off" and the reality of having to reintroduce themselves to one another, merge their two worlds instantaneously, and function in an effective way (Faber et al., 2008) despite developmental, mental, and physical changes. Boss (1984) describes these difficulties as ambiguous loss.

Ambiguous loss stems from the notion that stress results whenever there is change within a family and the most severe stressors are those that are indeterminate and ambiguous (Boss, 1999; Boss, 2007). As a result of ambiguous loss situations, individuals develop boundary ambiguity, which Boss and Greenberg (1984) define as "a state in which family members are uncertain in their perception about who is in or out of the family and who is performing what roles and tasks within the family system" (p.536). The lack of clarity over the status of one family member (e.g., "will the service member return from war?" or "will the service member walk again?" or "will the service member's PTSD subside?") immobilizes other family members, leaving them in a holding pattern where important decisions are postponed, and the

boundaries of the relationship remain unclear. If boundaries and roles of family members are unclear, this may affect the degree of fit or sense of belonging family members may experience.

Family Belonging

Reintegration challenges not only create a sense of boundary ambiguity but family dynamics may also be profoundly affected. The literature highlights the vital role that family members play in promoting the health and well-being of service members; however, when the well-being of the support system is compromised, the subsequent health and wellness of the service member also suffers. A single stressor or the additive effects of multiple stressors (e.g., deployment) affect the family system in harmful ways (Erbes, Meis, Polusny, & Compton, 2011; Mililiken, Auchterlonie, & Hoge, 2007). Service members returning with emotional injuries, such as PTSD, may be distant, numb, and avoidant of family members (Faber et al., 2008; Zerach et al., 2012). Moreover, the presence of physical or psychological wounds may lead to instability in relationships characterized by increased conflict and decreased cohesion among family members (Zerach et al., 2012). The constructs of family cohesion or belonging, a known protective factor for well-being, has received little attention in the empirical literature about veterans and their families (Hendrix, Jurich, & Schumm, 1995; Zerach et al., 2012).

Researchers have argued that a sense of belonging is a basic human need that is integral to the development of an individual's sense of well-being (Baumeister, 1991; Baumeister & Leary, 1995; Maslow, 1970). More specifically, Maslow (1970) argued that individuals crave and yearn for interpersonal relationships, often intensely striving for a place within a group or family much like animals exhibit tendencies to herd, to flock, and to join—in other words, to belong. This need to belong influences and motivates behavior and the fulfillment of belonging needs has been linked with individuals' physical and psychological health. For example,

children have identified a sense of belonging to the family or the community as a contributing factor to their positive well-being (Gabhainn & Sixsmith, 2005). Additional conceptualizations of belonging include Hagerty, Lynch-Sauer, Patusky, Bouwsema, & Collier's (1992) view in that one feels personally involved and an integral, valued member of a system or environment. Researchers have also posited that a sense of belonging is important for a positive perception of the social environment as well as of the self (i.e., identity formation) (Erikson, 1964 ; Hagerty et al. 1992). Moreover, belonging has been shown to promote resilience in adverse situations, and is considered a protective factor among adolescents (Randell, Wang, Hertling, & Eggert, 2006; Resnick, Bearman, Blum, Bauman, Harris, Jones, et al., 1997). Further, studies have shown that a sense of belonging has a protective effect against symptoms of depression (Choenarom, Williams, & Hagerty, 2005; Hagerty & Williams, 1999). Overall, researchers have demonstrated that a sense of belonging plays an important role in psychosocial functioning, which by extension may serve as the foundation for well-being in service members and their families.

Baumeister and Leary (1995) proposed that satisfying the need to belong involves two criteria. First, individuals must engage in frequent, positive interactions with other people, and second, this must occur in a relatively stable context in which there is mutual concern for one another's welfare. In this regard, a sense of belonging can be viewed as a reciprocal social network in which members promote feelings of inclusion, acceptance, and value. Additionally, Riggs and Riggs (2011) discussed the role of sensitive and responsive parenting as a significant protective factor and contributor to resilient adaptation. Attachment researchers (Ainsworth, Blehar, Waters, & Walls, 1978; Bowlby, 1988) posited that attachment relationships are context-sensitive in that stressful events can mediate the family processes. Accordingly, dyadic relationships between parents and children or service members and their partners are likely to be

influenced by the specific experiences and circumstances surrounding military families (e.g., deployments, separations, stress, and changes in family structure). As noted throughout the deployment cycle, relationships, family structure, and roles are constantly changing (Morse, 2006); moreover, the relationships between family members may also change as a result of physical and psychological trauma (Dekel & Monson, 2010; Faber et al., 2008; Keim & Vasilas, 2010; Taft et al., 2008; Zerach et al., 2012) As a result, upon a service member's return, the attachment relationships and overall functioning in the family system will not return to the same state that existed prior to deployment and there may be confusion about how one fits in this new system and what role they should be playing (Boss & Greenberg, 1984; Riggs & Riggs, 2011).

Family belonging, also referred to as a sense of connectedness and cohesion, reflects the emotional bond and sense of closeness that family members have with other members of the family that is expressed by feelings of acceptance and belonging within the family system (McKeown et al., 1997). The literature has shown that perceptions of stronger relationships and levels of communication were associated with lower stress in couples (Allen et al, 2011; Dolan & Ender, 2008). Moreover, greater family cohesion has been associated with increased well-being and fewer symptoms of PTSD among war veterans (Zerach et al., 2012). Despite the assertion that cohesion can be viewed as a way to promote well-being, this research does not address the role ambiguity that exists when a service member returns (Boss & Greenberg, 1984). In other words, how does cohesion promote well-being if a service member does not know how he or she fits within the new family structure or if the family members do not know how to help a service member successfully reintegrate into the family post-injury? The concept of boundary ambiguity has implications for the development of belonging that must be addressed further.

Risks of not belonging. Results of Hagerty et al.'s (2002) study examining the antecedents of sense of belonging highlight the important role that having a caring relationship with a parent plays in the development of a sense of belonging. Moreover, an unsatisfied need for belonging has been found to negatively correlate with a sense of well-being (Mellor, Stokes, Firth, Hayashi, & Cummin, 2008; Zerach et al., 2012). Baumeister and Leary (1995) examined the concept of partial deprivation and how failing to meet both criteria for belonging is often associated with increased levels of distress and possible mental illness, less than satisfactory feelings of belonging, and a lack of meaning or purpose in life. Partial deprivation can be described as feeling connected to an individual but lacking the consistent interactions necessary to fully develop a healthy, satisfactory sense of belonging (e.g., family members who are in prison, long distance relationships, or deployed military personnel). Based on the notion that unsatisfied belonging needs are negatively correlated with a sense of well-being (Mellor et al, 2008; Zerach et al., 2012) and military spouses or partners may be at risk of having unfilled belonging needs (Baumeister & Leary, 1995), there are implications for the deployment process and in particular, reintegration.

Although social support has been known to be a central protective factor in promoting well-being and mediating effects of trauma (Allen et al., 2011; Basham et al. 2008; Dekel & Monson, 2010; Faber et al., 2008), a sense of belonging in military families has not received adequate attention in the literature (e.g., Zerach et al., 2012). Many combat veterans and their partners experience acute stress responses in addition to more severe mental health diagnoses. As a result, despite the critical role that social support plays in the healing process, the quality of the social support the veteran receives from a spouse or caregiver is essentially strained. Therefore, neither the veteran nor the caregiver is getting what he or she needs to function at

optimum levels for improvement and growth. Moreover, researchers have suggested a bi-directional link between well-being and levels of cohesion (Zerach et al., 2012). This means that while a service member may have injuries and wounds, he does not live in a vacuum; caring for and being in the presence of these physical and psychological injuries can not only have a direct effect on the well-being of family members, but it can also affect the service member in negative ways. Given this information, it is crucial to develop a clearer understanding of the trajectory of family belonging throughout the deployment cycle and treatment process, so that families can promote one another's healing and growth.

Overall, the literature highlights the importance of having a sense of belonging and examines the role sense of belonging plays in protecting against certain risk factors. However, despite the literature regarding the benefits of having a sense of belonging, less is known about family belonging and even less is known about family belonging in military families. The extant literature on military families addresses issues of cohesion and connectedness (e.g., Badr et al, 2011; Zerach et al., 2012) but as previously noted, these constructs do not account for the degree of fit within the system. For example, a service member may perceive a high sense of cohesion among family members, but he may not think he actually *fits* with this cohesive unit; rather, he may feel as if he were an outsider looking in. In this regard, his sense of belonging is low. Moreover, while the literature regarding ambiguous loss addresses the lack of perceived fit and role ambiguity within the family (e.g., Boss, 1983; Boss, 1999; Boss, 2007), it does not address the connectedness or cohesion of family members. This study proposes that the concept of family belonging addresses these two concepts and offers a more comprehensive understanding of the experiences of military families.

Measures for belonging. Current measures of belonging are few. Although there are measures for family cohesion and connectedness (e.g., Family Environment Scale, Family Assessment Device, Family Adaptability and Cohesion Evaluation Scale IV), these measures do not take into account an important aspect of belonging which is the degree of fit within a system. The concept of fit refers to the congruence of an individual's interests and values with the interests and values of the system or family. Further, Goodenow (1992) purported that mutual feelings of inclusion and acceptance are integral components for belonging.

In addition to the paucity of belonging measures in the field, there are few measures that assess the systems changes that occur specifically with military families. Despite increased initiatives to develop and promote a more comprehensive understanding of the experiences of military families, ways to measure these constructs are less prevalent. This will become more important for measuring outcomes and documenting specific factors that promote and sustain well-being among troops and their families.

Current Study Goals

Through this study, the researcher aimed to develop evidence for establishing validity and reliability for the Family Belonging Scale – Revised (FBS-R) so it can be used with military families. Additionally, the researcher sought to identify individual and structural factors that may contribute to higher or lower levels of belonging.

Research questions.

1. Will the unidimensional family belonging construct of the FBS-R remain intact when applied to individuals from military families?
2. Will the FBS-R correlate with previously established measures of cohesion and belonging?

3. What factors contribute to higher/lower levels of belonging?
    a. More specifically, does the presence of mental/physical illness negatively correlate with belonging?
    b. Does the number of deployments have an inverse relationship with the degree of belonging?
    c. Given that there are differences in experiences by branch of military, are there also differences in level of belonging by branch of military?
    d. Will lengthier deployments significantly contribute to lower levels of belonging?

Summary

Larger proportions of military families are experiencing increased deployment stressors that are affecting family members' ability to adjust. While researchers have identified some factors that may affect the reintegration process (e.g., ambiguous loss and physical and psychological trauma), little is known about family members' sense of belonging and how their sense of belonging is affected during the deployment cycle. Additionally, few measures aimed to assess family dynamics, more specifically belonging, have been adapted for use with military families. The purpose of this study was to begin to validate the Family Belonging Scale-Revised as a measure of an individual's sense of belonging in military families. Additionally, the researcher aimed to identify individual and structural factors associated with higher and lower levels of belonging.

Method

The present study sought to provide validity evidence for the Family Belonging Scale – Revised, a measure of family belonging, for use with military families. Correlation analyses

were performed to provide evidence of convergent validity with measures of family cohesion and general sense of belonging. This study also attempted to develop a clearer understanding of factors that may contribute to higher or lower levels of family belonging for individuals from military families.

Participants. Participants who met criteria for inclusion in the study were individuals from military families (i.e., service members, partners, and college-aged dependents) who experienced a deployment of the service member at least once during Operation Enduring Freedom, Operation Iraqi Freedom, and/or Operation New Dawn. Military family is further defined as those families whose service member is from any branch of military and served in OEF/OIF/OND. Participants (N=52) consisted of 24 service members (46.2%), 24 partners/significant others of service members (46.2%), and four adult children of service members (7.7%). Of this total sample, 55.8% identified as female (n=29) and 44.2% identified as male (n=23). In addition, 78.9% of participants indicated they were living in the same household as the service member at the time of deployment. Within this overall sample, 38.4% of respondents stated the service member was in the Army, 28.8% reported Marine Corps, and 15.3% indicated the service member was in the Navy. The remaining 17.1% reported being affiliated with the Air Force, National Guard, Special Forces, or multiple branches of the military.

Instrumentation. Measures were presented to respondents through Qualtrics, an online survey management tool, in the following order: demographic information (Appendix A), Family Belonging Scale – Revised (Appendix B), the Family Environment Scale (Appendix C), and the Sense of Belonging Instrument (Appendix D).

Demographics. Demographic information was collected to assist in identifying possible predictors of family belonging (i.e., length of deployment, number of deployments, average length of time between deployments, and presence of physical or mental illness). A screening question was asked at the beginning of the survey to determine the type of demographic survey the respondent will receive (i.e., service member, partner, or dependent). Each survey was specifically worded to target the respondent's identity; however, the demographic data collected remained the same. Additional demographic information included current age and sex of the respondent, relationship to the deployed service member, whether or not the respondent lived in the service member's household during deployment, the service member's branch of military, and length of time since last deployment.

Family Belonging Scale – Revised. The Family Belonging Scale-Revised (FBS-R) (Leake, 2003) is a 10-item measure assessing an individual's sense of belonging within her or his family. This measure originated from the 13-item Parent Family Connectedness Scale. Whereas other assessments solely measure levels of connectedness or cohesion, a fraction of belonging, the FBS-R accounts for developmental levels of fit and feelings of inclusion and acceptance. This measure was validated on a population of adolescents from step-families and has an internal consistency of .91 with step-family adolescents and .93 with the mixed sample. The scale has a five-point Likert-type response option with 1 representing "not at all" and 5 representing "very much." The mean of all items (i.e., 1-5) on the FBS-R indicates the level of an individual's sense of family belonging with higher scores representing higher levels of belonging.

Family Environment Scale (Form R). The Family Environment Scale (FES) is a widely used 90-item measure that assesses socio-environmental characteristics of the family system and has satisfactory psychometric properties. The FES is written on a 6^{th} grade reading level and

individual respondents must be a minimum age of 11 years (Moos & Moos, 2002). The scales can be presented in three different forms that measure an individual's perception of the actual (Form R), ideal or preferred (Form I), and expected (Form E) family dynamics. Each form is composed of the same 10 subscales that assess three overarching domains (relationship, personal growth, and system maintenance) that were derived from validation studies using samples of husbands and wives, adolescent sons and daughters, and distressed and non-distressed families. For the purpose of establishing evidence of convergent validity for the FBS-R, Form R was used to measure the respondent's current perceptions of family dynamics within the relationship dimension.

The relationship dimension of the FES is comprised of three subscales that measure levels of cohesion, expressiveness, and conflict within the family (Moos & Moos, 2002). This dimension most closely embodies elements of family belonging and the subscales within this dimension are suited for use as standalone subscales without affecting reliability or validity (e.g., Holztman & Roberts, 2012; Kaugars, Zebracki, Kichler, Fitzgerald, & Greenley, 2010; Moos & Moos, 2002; Zerach, Solomon, Horesh, & Ein-Dor, 2012). Each subscale consists of nine items with dichotomous true/false response options and is designed to identify characteristics that differentiate between distressed and non-distressed families. Responses are aggregated and higher scores on the scales reflect higher levels of the given construct. The cohesion subscale measures the degree of commitment, help, and support that family members provide for one another. Scores for cohesion scale range from 1 to 9 with higher scores reflecting greater cohesion. The internal consistency for the cohesion subscale is .78, which suggests this is a reliable measure of cohesion. Internal reliability estimates were derived from samples of 1,468 husbands and wives, 621 adolescent sons and daughters, and drawn from 534 normal and 266

distressed families. Test-retest reliabilities at 2 months for the subscales were in the moderate to high range: cohesion (.86), expressiveness (.73), and conflict (.85). For the purposes of establishing convergent validity, the cohesion subscale was used.

Sense of Belonging Instrument. The 27-item Sense of Belonging Instrument (SOBI) is a self-report instrument designed to assess levels of sense of belonging in adults (Hagerty & Patusky, 1995). The SOBI consists of two separately scored scales, the SOBI-P (psychological state) and SOBI-A (antecedents of belonging). The SOBI-P reflects the psychological experience of sense of belonging that taps into dimensions of the experience of being accepted or needed and fit, the perception that the individual's characteristics correspond with the system or environment (Hagerty & Patusky, 1995; Hagerty, Williams, Coyne, & Early, 1996). This scale consists of 18 items, scored on a 4-point Likert-type scale from 1 (strongly agree) to 4 (strongly disagree). Evidence from validation studies with nuns (a = .91), college aged students (a = .93), and patients being treated for major depression (a = .93) supports this as a valid and reliable measure. Test-retest reliability was examined only within the student sample and was also found to be high (.84). Previous studies using the SOBI-P as a measure of sense of belonging have found further support for the high reliability of the scale; Cronbach's alpha coefficients were .97 in a sample of men and women with a history of depression (Choenarom, Williams, & Hagerty, 2005), .92 among a sample of Australian retirees (Kissane & McLaren, 2006), and .96 in a sample of lesbian women (McLaren, 2009). For the purposes of establishing evidence for convergent validity for the FBS-R, the 18 items from the SOBI-P were used (Choenarom, Williams, & Hagerty, 2005; Hagerty & Patusky, 1995; Hagerty et al., 1996; Hagerty, Williams, & Oe, 2002).

Procedure. This study aimed to garner participation from service members, partners, and college-aged dependents who were asked to complete an online survey comprised of demographics questions, the Family Belonging Scale-Revised, the Family Environment Scale relationship subscales, and the Sense of Belonging Instrument. Cronbach's alpha "if item removed" was used to identify whether the family belonging factor remains intact as a unidimensional construct, correlation analyses were used to establish evidence for convergent validity, and non-parametric t-tests were conducted to determine differences in belonging means for the variables of length of deployment, number of deployments, presence of physical/mental illness, and branch of military.

Participant recruitment. Prospective participants were recruited through email listservs for those attending colleges and universities under GI Bill benefits and through information posted through Student Veterans' Organizations. Because this recruitment method was expected to garner participants who were primarily service members/student veterans and dependents of veterans, additional recruitment methods to identify partners of service members included making contacts with military family groups (i.e., Wounded Warrior Program and the Military Family Support Center) to disseminate study information. Participants were also sought through professional listservs (e.g., Division 19: Military Psychology and Division 17: Society for Counseling Psychology Military Special Interest Group), newsletters and social media sites for service members and their families, and snowball sampling, where participants were encouraged to forward study recruitment information to others who may qualify.

Survey administration. The survey was provided online, using Qualtrics, a survey management tool. Online survey administration was used for ease of access and convenience for the participants. As noted in the literature, not only do many service members and their partners

have children (DoD Demographics Report, 2010), but depending on the current state of the service member's deployment and stressors in the participant's life, requiring a participant to go to a facility to take a paper/pencil survey may not have been as feasible. Upon receipt of study information (i.e., study overview and web link), participants were required to review informed consent information and provide consent prior to beginning the study. If participants had questions regarding the study, they were given the opportunity to contact the researcher at the contact information provided on the informed consent. The survey took no more than 20 minutes to complete, and the participants responded to the survey in the following order: demographics page, the FBS-R, the FES, and the SOBI. At the end of the survey, the participants were thanked for their time and were instructed to close their browser.

Analyses. The survey data was cleaned, coded, and entered into SPSS 22.0 and was analyzed using Cronbach's alpha, additional reliability analyses, correlations, and non-parametric t-tests.

Validation procedures. For the purposes of determining whether the unidimensional construct of family belonging remained intact when applied to individuals from military families, the researcher used Cronbach's alpha "if item deleted function" to determine the internal consistency of the measure and identify how well each individual item contributed to or took away from the construct of family belonging. An alpha greater than .70 was considered sufficient for establishing evidence for reliability. Correlational analyses were performed to build evidence for establishing convergent validity with established measures of cohesion and general sense of belonging (i.e., FES and SOBI-P). Given that the constructs are theoretically related, the correlation was expected to be moderately high; however, the correlation would not be so high as to indicate it is measuring the same construct.

Identifying predictor variables. After checking normality assumptions with the Shapiro-Wilk test of normality, the data was determined to be not normal. Non parametric tests were conducted in order to identify differences in means of family belonging, as measured by the score on the FBS-R, with regard to demographic (e.g., presence of mental/physical illness, length of deployment, number of deployments, and branch of the military).

This section reviewed the methodology used to gather validity evidence for the Family Belonging Scale – Revised, a measure of family belonging, for use with military families. Correlation analyses were performed to provide evidence of convergent validity with measures of family cohesion and general sense of belonging. This study also attempted to develop a clearer understanding of factors that may contribute to higher or lower levels of family belonging for individuals from military families. The next section will review results of these tests and discuss the results in terms of the research questions.

Results

This section includes a description of decisions made while cleaning, coding, and analyzing the data. Descriptive statistics are included to provide an overview of the sample and results will be presented as they relate to the research questions. More specifically, internal consistency data (i.e., Cronbach's alpha) for the FBS-R will be presented. Correlation data will be included for the purposes of establishing convergent validity with other measures of family cohesion and sense of belonging. Further, results from tests of normality and non-parametric t-tests comparing FBS-R means across demographic variables will be discussed. The researcher conducted all statistical analyses using SPSS statistical software package version 22.0 for Windows.

Data exclusion decisions. A total of 80 participants consented to participate in this research study. This included 28 service members, 32 partners/significant others of service members, and 10 adult children of service members. Six individuals indicated none of the categories applied to them and were taken to the end of the survey and four individuals did not complete the survey after providing their consent; therefore, these 10 participants were removed from the data set. Upon further examination, the researcher identified 15 additional incomplete responses, where individuals provided initial demographic data, but did not respond to the survey items (e.g., FBS-R, FES, and SOBI-P). These cases were also removed from the data set due to significantly missing data. Finally, a review of the data revealed three service member respondents who did not meet the criteria of being deployed once during Operation Enduring Freedom, Operation Iraqi Freedom, or Operation New Dawn. These individuals indicated service dates consistent with the first Gulf War, ranging in deployment dates between 1992 and 1999 with the last deployment occurring during this period. The researcher removed these participants' information from the data set and further analyses. Although removal of this data reduced the overall number of participants an in already limited sample, these decisions were made to present the cleanest and most accurate data in an effort to provide validity evidence for the FBS-R for the current military population (Field, 2009).

Demographics. This section contains demographic information for the overall sample. After removal of missing data and data for respondents who did not meet criteria for the study, the remaining participants (N=52) consisted of 24 service members, 24 partners/significant others of service members, and four adult children of service members. Of this total sample, 55.8% identified as female and 44.2% identified as male. In addition, 78.9% of participants indicated they were living in the same household as the service member at the time of

deployment. Within this overall sample, 38.4% of respondents stated the service member was in the Army, 28.8% reported Marine Corps, and 15.3% indicated the service member was in the Navy. The remaining 17.1% reported being affiliated with the Air Force, National Guard, Special Forces, or multiple branches of the military. The overall mean for ratings on the FBS-R was 4.24 (SD = .57) with a range of scores from 2.70-5.00 and a median score of 4.30. This suggests a relatively higher sense of family belonging across participants.

Internal consistency and reliability of the Family Belonging Scale-Revised. For the purposes of determining whether the unidimensional construct of family belonging remained intact when applied to individuals from military families, the researcher used Cronbach's alpha "if item deleted function" to determine the internal consistency of the measure and identify how well each individual item contributed to or took away from the construct of family belonging. Cronbach's alpha for the 10-item Family Belonging Scale-Revised was .88 and appeared consistent with the reliability statistics from a previous study (Leake, 2003) of the FBS-R with step-family adolescents (α =.91) and with a mixed sample (α =.93). Corrected Item-Total Correlations and Cronbach's alpha if item deleted were examined to determine possible items for elimination. The two corrected item-total correlations that were the lowest were examined further using Cronbach's alpha if item deleted. It was determined that the internal consistency would not be improved if these items were removed. As a result, removing items from the measure would not make a meaningful improvement and is not warranted. Further, the internal consistency and reliability (α =.88) suggests the unidimensional construct of family belonging remains intact when applied to individuals from military families.

Evidence for convergent validity. In order to provide evidence of convergent validity for the FBS-R, standardized scores were obtained for the raw scores on the FBS-R, FES

Cohesion Scale, and the SOBI-P. This allows for comparisons to be made across different measures with different units of measure. Because population data (i.e., mean and standard deviation) were not available for the majority of the measures, the researcher chose to utilize the sample data to generate a Z-score. Z-scores were created for the aggregated raw scores from the FBS-R, FES Cohesion Scale, and the SOBI-P. These Z-scores were then compared utilizing Pearson's correlations. Z-scores for the FBS-R and the SOBI-P were significantly correlated at the .01 level, $r(48) = .526$, $p = .001$. Z-scores for the FBS-R and the FES-Cohesion subscale were also significantly correlated at the .01 level, $r(46) = .495$, $p = .001$. In addition, the Z-scores for the SOBI-P and the FES-Cohesion subscale were not significantly correlated, $r(48) = .269$, $p = .07$. This suggests the SOBI-P and the FES-Cohesion subscale do not exhibit a substantial overlap with one another. This provides further evidence that the FES-Cohesion subscale does not provide information regarding sense of belonging and the SOBI-P does not account for levels of family cohesion or connectedness. However, because the respective correlations between the FBS-R and the FES-Cohesion subscale and the FBS-R and the SOBI-P were significant, this indicates the FBS-R is likely addressing aspects of both belonging and family cohesion.

Factors associated with higher and lower levels of belonging. Due to insufficient data, multiple regression to examine factors contributing to higher and lower levels of belonging was not conducted.

Re-coding decisions. To examine factors associated with higher and lower levels of family belonging (e.g., length of deployment, number of deployments, branch of military), the researcher reviewed the participants' free responses and coded their responses into categorical variables. The presence of mental/physical illness variable was already categorical with a yes/no

response with yes coded as 1 and no coded as 2, and was not re-coded. For number of deployments, the research literature indicated service members are experiencing an increase in deployments (Chartrand, Frank, White, & Shope, 2008; Duckworth, 2009; Powers, 2003; Savitsky, Illingworth, & DuLaney, 2009); however, the literature did not specify what is considered to be a high number of deployments. A review of the data revealed a natural delineation in responses at three deployments. The researcher chose this cutoff to determine high and low number of deployments. More specifically, less than three deployments was re-coded as low and three or more deployments was coded as high. Regarding length of deployments, the literature suggested current deployments for OEF/OIF/OND veterans lasted for 15-18 months (DoD Mental Health Task Force, 2007; Paley, Lester, and Mogil, 2013); this is notably longer than deployments for previous conflicts which lasted approximately 6-12 months. In order to create categorical variables indicating shorter vs. longer deployments, the researcher coded deployments lasting 12 months or less as shorter and those lasting above 12 months as longer, consistent with the literature. If the respondent provided multiple responses, due to experiencing multiple deployments, the researcher coded the longest length of deployment. For example, if a respondent indicated deployments lasted 9 months, 9 months, and 15 months, the categorical variable applied to this would be longer because they experienced at least one deployment classified as longer. Regarding branch of service, the researcher identified that the groups for branch of service did not have an adequate number of participants to conduct meaningful analyses on all of these groups. The researcher collapsed the groups with minimal responses into an Other category, resulting in the following groups: Army (n=20), Navy (n=8), Marine Corps (n=15), and Other (n=9).

Assumptions of normality. The researcher checked for normality prior to conducting independent samples t-tests. The Shapiro-Wilk test of normality was used because this is indicated for smaller samples. According to the Shapiro-Wilk test of normality, normality cannot be assumed, W=.945, *p*=.033. This is consistent with a visual examination of the data plotted on a histogram, suggesting the data is positively skewed. Due to assumptions of normality being violated for the FBS-R means, non-parametric t-tests were conducted.

Results of the Mann-Whitney U. A Mann-Whitney U was conducted to evaluate the difference between FBS-R means for those reporting physical/mental illness and those not endorsing physical/mental illness. Results of this indicated that there was no difference in FBS-R scores, *U*= 214, *Z* = -1.35, *p*=.176, *r*=.19.

Regarding the question of whether the number of deployments (i.e., low or high) was associated with differences in family belonging, as measured by FBS-R means, results of the Mann-Whitney U indicated that there was no difference in FBS-R scores for these groups, *U*= 246, *Z* = -.624, *p*=.533, *r*=.09.

To determine if there were differences in family belonging by length of deployments (i.e., shorter or longer), a Mann-Whitney U test was conducted. Results indicated that there was no difference in FBS-R scores for those experiencing shorter vs. longer deployments, *U*= 137, *Z* = -1.25, *p*=.211, *r*=.18.

Results of the Kruskal-Wallis test. Due to assumptions of normality being violated, the Kruskal-Wallis test was conducted to attempt to detect differences in family belonging means among the different branches of services (Army, Navy, Marine Corps, Other). Results from this test were not significant, $\chi^2(3, N=49) = 7.54$, p= .056. This suggests there are no differences in feelings of family belonging based on branch of service. However, given the small sample size

and small groups within the sample, there may not be enough power to detect a significant difference (Cohen, 1988).

Results and research questions. This section reviews the results with regard to each of the research questions. As previously noted, the researcher aimed to develop evidence for establishing validity and reliability for the Family Belonging Scale – Revised for use with military families and identify individual and structural factors associated with higher or lower levels of belonging. A review of the research questions with the corresponding results is included.

Will the unidimensional family belonging construct of the FBS-R remain intact when applied to individuals from military families? The internal consistency and reliability (α =.88) suggests the unidimensional construct of family belonging remains intact when applied to individuals from military families.

Will the FBS-R correlate with previously established measures of cohesion and belonging? Z-scores for the FBS-R and the SOBI-P were significantly correlated at the .01 level, $r(48) = .526$, $p = .001$. Z-scores for the FBS-R and the FES-Cohesion subscale were also significantly correlated at the .01 level, $r(46) = .495$, $p = .001$. In addition, the Z-scores for the SOBI-P and the FES-Cohesion subscale were not significantly correlated, $r(48) = .269$, $p = .07$. This suggests the SOBI-P and the FES-Cohesion subscale do not exhibit a substantial overlap with one another. This provides further evidence that the FES-Cohesion subscale does not provide information regarding sense of belonging and the SOBI-P does not account for levels of family cohesion or connectedness. However, because the respective correlations between the FBS-R and the FES-Cohesion subscale and the FBS-R and the SOBI-P were significant, this indicates the FBS-R is likely addressing aspects of both belonging and family cohesion.

What factors are associated with higher/lower levels of belonging? Results of Mann-Whitney U and Kruskal Wallis were not significant, suggesting there were no differences in scores on the FBS-R with regard to the presence of a mental/physical illness, number of deployments, branch of military, or length of deployment.

Discussion

Recent literature continues to highlight the importance of focusing on the family system to gain a clearer understanding of family dynamics and inform practice to promote prevention and treatment efforts (Beardslee et al., 2013; Beardslee et al., 2011; Cozza, Holmes, & Van Ost, 2013; Kaplow et al., 2013). Although longitudinal studies are currently underway, there continues to be little data regarding the long-term effects of deployment on families, what familial factors increase risk of maladjustment, and what ecological protective factors promote resiliency (Chandra & London, 2013; Sammons & Batton, 2008; Wadsworth et al. 2013). As longitudinal studies continue, the current literature is beginning to address the importance of developing a better understanding of the effects of deployment on family dynamics and utilizing family system interventions to promote the well-being of the family unit and support the whole system rather than solely treating the veteran (Beardslee et al., 2013; Masten, 2013). However, there continues to be little research that focuses on sense of belonging, particularly family belonging, as a protective factor or support for promoting a sense of well-being and improving treatment.

This study aimed to provide validity evidence for the Family Belonging Scale – Revised for use with military families. The findings from this study suggested this may be an appropriate instrument to measure family belonging in this population. Additionally, results from this study also add to the emerging literature regarding family systems and the ecolgoical factors promoting

resiliency. In this chapter, results of the current study are discussed in terms of the implications for practice, limitations of the current study, and recommendations for future research related to family belonging in military families.

Discussion of results of the Family Belonging Scale – Revised. As previously noted, current measures of belonging are relatively scarce. Although there are measures for family cohesion and connectedness (e.g., Family Environment Scale, Family Assessment Device, Family Adaptability and Cohesion Evaluation Scale IV), these measures do not take into account an important aspect of belonging which is the degree of fit within a system. This was further evidenced by correlation results from this study in that the Family Environment Scale – Cohesion subscale did not exhibit significant overlap with the Sense of Belonging Instrument – Psychological scale. Moreover, the concept of fit refers to the congruence of an individual's interests and values with the interests and values of the system or family, and Goodenow (1992) suggested that mutual feelings of inclusion and acceptance are integral components for belonging.

With emerging literature focusing on military family systems and the dynamics of one family member's functioning on the system, it is important to identify tools for measuring these constructs with this population. However, in addition to the general lack of belonging measures in the field, there are few measures that assess the systemic changes occurring specifically within military families. Moreover, despite increased initiatives to develop and promote a more comprehensive understanding of the experiences of military families, ways to measure these constructs are less prevalent. This will become more important for measuring outcomes and documenting specific factors that promote and sustain well-being among troops and their families.

A review of the results indicate the unidimensional construct of family belonging remained intact when applied to individuals from military families. Moreover, Cronbach's alpha for the 10-item Family Belonging Scale – Revised (α =.88) appeared relatively consistent with the reliability statistics from a Leake's (2003) validation study with step-family adolescents (α =.91) and with a mixed sample (α =.93). In addition, it was determined that the internal consistency would not be improved if specific items were removed, thus the removal of items was not indicated. Additional analyses revealed the FBS-R not only correlates with the SOBI-P, a measure of general sense of belonging, it also correlates with the FES-Cohesion subscale which aims to measure family cohesion and connectedness. Further, the SOBI-P and the FES-Cohesion subscale did not exhibit a substantial overlap with one another, suggesting they are measuring slightly different constructs. Therefore, it is believed that the FBS-R is likely addressing aspects of both belonging and family cohesion. These findings serve to bolster the current validity and reliability evidence for the FBS-R and provide a direction for further study.

Results from the current study also indicate the majority of respondents reported experiences consistent with a higher level of family belonging (M = 4.24, SD = .57), despite the presence of mental illness, more frequent deployments, and lengthier deployments. It should be noted that although some participants reported experiencing lengthier deployments (e.g., 12-15 months) consistent with the current literature about OEF/OIF/OND (DoD Mental Health Task Force, 2007; Paley, Lester, and Mogil, 2013), the majority of participants reported shorter deployments lasting approximately 9 months or less. In addition, only 38% of participants reported the service member was diagnosed with or was suspected of having a mental/physical illness, despite the research literature suggesting a substantial increase in service members returning with physical and/or psychological wounds (Carlock, 2007; Chandra et al., 2011;

Fisher, 2008; Gawande, 2004). These factors, such as lower rates of physical/mental illness and shorter lengths of deployment, may be a contributing factor to the increased levels of family belonging found in this study or family belonging may be serving as a buffer against these stressors. Future research would benefit from examining the moderating effects of sense of family belonging on overall stress level experienced by military families.

Implications for practice. At present, the Department of Defense is responsible for more dependents than in previous years, and the number is growing (DoD, 2010). Further, as an increasing number of troops return home through the efforts of Operation New Dawn, there is a rapidly growing population of service members and their families living in various civilian communities throughout the United States with limited access to the military communities in which they were once embedded (Murphy & Fairbank, 2013; Paley, Lester, and Mogil, 2013). Without this vital social support, it becomes increasingly more important to focus on strengthening the family system. In addition, with potential reintegration challenges facing them, these individuals are more likely to seek support from community providers to support their adjustment needs (Murphy & Fairbank, 2013; Paley, Lester, and Mogil, 2013). Therefore, gaining a better understanding of factors associated with family belonging may support efforts to build resilience within these families. With increasing initiatives focused on supporting the military family (Beardslee et al., 2013; Murphy and Fairbank, 2013; Wadworth et al. 2013), practitioners would benefit from not only becoming aware of the issues military families face, but also identifying and building upon strengths that can promote their resiliency (e.g., belonging).

Recent literature also suggests prevention and intervention efforts will be more successful when conceptualized from a contextual, systems framework and when providers are supporting

the entire system, rather than the individual (Maholmes, 2012; Paley, Lester, & Mogil, 2013; Park, 2011). As previously noted, many service members rely on family members as caregivers and the service member's overall distress affects the caregiver's current level of distress and vice versa (Wadsworth et al., 2013; Zerach et al., 2012). Although family members have been involved in care as an adjunct to therapy (i.e., a support or caregiver for the service member), additional assessment and treatment efforts should focus on integrating and supporting all family members to build a healthier system rather than solely focusing on the needs of the identified patient. Results of this study indicated there were higher levels of overall belonging and lower rates of physical/mental illness. Although it is not possible to determine how these factors affect one another, it may be helpful to explore this concept further in an effort to build supportive networks of care.

As an increasing number of veterans and their families seek care in their local communities, it would benefit providers to become aware of the issues military families face and develop an understanding of their strengths. Moreover, it would also be helpful to have access to cost-effective and reliable tools to inform their practice and monitor progress. With increasing validity evidence and normative data, the FBS-R may be an efficient tool to help therapists gain a better understanding about military families and the belonging needs of the family members.

Limitations of the study. Although this study provided initial evidence for validation by demonstrating strong internal consistency and good correlations with other, more established measures, there are still limitations, and results should be reviewed with this information in mind. The overarching limitation for this study was sample size and methodological issues that arose as a result of having such a small sample. Because of this, a number of the projected and

more appropriate tests for a validation project were not conducted. These limitations are discussed and recommendations are provided to address this in future studies.

Although there were equal groups of service members and partners responding to the survey, very few adult children of these veterans participated. Increasing recruitment efforts to target this population in an effort to gather additional evidence from this group would be helpful. Moreover, this researcher did not solicit participants who were minors. The research literature indicates that although there are a number of college-aged dependents of OEF/OIF/OND veterans, there is also a substantial number of child dependents under the age of 12 (Demographics Report, 2010; MHAT, 2006). Focusing efforts to access this population would be beneficial to gather the most comprehensive validity evidence and develop a clearer understanding of all family members' experiences related to belonging.

One curious finding of this study was the overwhelming reports of a high sense of family belonging across participants. This is inconsistent with the current literature regarding military families and may be considered a limitation with regard to providing adequate evidence for validation. This may suggest those who self-selected to participate in this study were healthier individuals and were readily able to report on their experiences with deployment and reintegration. In addition, the avenues of recruitment (e.g., student veterans and military-related listservs, colleges/universities, social media sites for veterans and family members, and snowball sampling) may have tapped into a population who was already accessing supportive resources and increasing connectedness with others (e.g., social belonging), indicating a potentially higher sense of well-being. Future recruitment efforts should concentrate on identifying a broader range of participants. It will be particularly important to identify levels of belonging in clinical and/or sub-clinical populations as well as community samples to gain a better understanding of these

groups and provide a diverse range of validity evidence that may be more representative of the current population. Another limitation with regard to the sample is the focus on current military families (e.g., OEF, OIF, OND). Further validation efforts should examine individuals from multiple and varied conflicts to be representative of the entire military population.

A limitation regarding analyses was the researcher's decision to aggregate the data at differing levels. This could result in losing some of the nuances found in specific groups and would benefit from being explored further. Future studies should aim to engage in more purposive sampling for specific groups to not only increase representation from these groups, but also gather more in depth evidence regarding their experiences.

Recommendations for future research. Emerging theoretical literature continues to emphasize the importance of focusing on the family system to gain a clearer understanding of family dynamics and inform practice with military families (Beardslee et al, 2013; Cozza, Holmes, & Van Ost, 2013; Kaplow et al., 2013; Paley, Lester, & Mogil; 2013). However, there is still little data regarding the actual dynamics in the family system. Although this study aimed to address some of the measurement gaps in the literature and provide a measure of family belonging for use with this population, more research should be conducted to provide additional evidence regarding the reliability and validity of this new measure. Future research should focus on recruitment of diverse pariticipants and continue to explore factors that affect family belonging in military families. Moreover, because there are few measures that address family belonging, additional research on the FBS-R will be necessary to help develop a cohesive and consistent measure of family belonging with appropriate norms and standardization information.

In order to utilize this scale in therapeutic settings, it will be particularly important to identify levels of belonging in clinical and/or sub-clinical populations as well as community

samples to gain a better understanding of normative data for these groups. The research literature also suggests most individuals in the military are from more culturally diverse, rural backgrounds (DoD, 2010; Heady, 2011; U.S. Bureau of the Census, 2011; U.S. Department of Veterans Affairs Office of Rural Health [VA ORH], 2011). In order to provide a diverse range of validity evidence, further validation efforts should also include individuals who are ethnically and geographically diverse and who have experienced multiple and varied conflicts to be representative of the entire military population.

With changing rates of deployment, more intense (e.g., no clear or distinct front line) and increasingly dangerous levels of combat (e.g., improvised explosive devices), and a higher prevalence of family member dependents than in previous conflicts, researchers, practitioners, and policymakers should be engaging in collaborative efforts to help promote the safety and well-being of this growing number of individuals. As previously mentioned, when a service member returns from combat, he or she is not alone. Each service member lives within a greater systemic framework and understanding the dynamics of stress and change within this framework will be integral to the success and well-being of everyone in the system.

This study began to validate the Family Belonging Scale – Revised for use with military families. More specifically, this study attempted to determine whether the construct of family belonging remains intact when applied to a sample of individuals from military families and provide evidence for convergent validity with other measures of belonging and cohesion. Finally, this study examined factors associated with higher and lower levels of belonging in military families such as number of deployments, presence of mental/physical illness, and length of deployments. The following chapters will provide a detailed literature review, identify gaps in

the literature, describe methodology of the study, present results, and discuss the results in the context of the current literature.

Chapter 2: Introduction and Literature Review

As of 2009, more than two million service members have deployed to Iraq and Afghanistan in support of the Global War on Terror (Department of Defense, 2010). When a service member is deployed, the remaining family members experience their own form of deployment in which they must manage a host of emotions, responsibilities, and uncertainties for the duration of the service member's absence. The strain of military deployment can take an emotional toll on the caregiver left behind, the deployed service member, and the family unit (Allen, Rhoades, Stanley, & Markman, 2011; Dekel & Monson, 2010; Kelley, 1994; Mmari, Roche, Sudhinaraset, & Blum, 2009). Family and individual functioning can be strained by long periods of separation, intermittent single parenting interrupted by periodic reintegration, frequent relocations, financial strain, and the need to cope with service members' physical and/or mental injuries (Chartrand, Frank, White, & Shope, 2008; Savitsky, Illingworth, & DuLaney, 2009). In many instances, a traumatized service member is greeting a traumatized family (Milliken, Auchterlonie, & Hoge, 2007). For example, the service member may contend with feelings of anxiety, have difficulty connecting to others, experience sleep problems, and miss the structure and solidarity of military service, while family members struggle to manage their levels of distress as they attempt to reintegrate the changed service member into established routines and rituals (Faber, Willerton, Clymer, Macdermid, & Weiss, 2008). Further, symptoms of numbing and avoidance may impede service members' efforts to fully reintegrate into the family and increase a sense of uncertainty in family members (Dekel & Monson, 2010; Faber et al., 2008; Galovski, & Lyons, 2004). Spouses of military members have reported that deployments result in loss of emotional support, loneliness, role overload, and role shifts (Vormbrock, 1993; Wood, Scarville, & Gravino, 1995).

As emotional expression is key for developing and maintaining healthy, close relationships (Ainsworth, 1989; Baumeister & Leary, 1995), service members returning with blunted affect and avoidant behaviors may risk decreasing levels of attachment to children and partners, a fundamental element of belonging (Baumeister & Leary). A feeling of a sense of belonging, or knowing that one is cared for, accepted, and fits with a group or system, is essential to the construction of a sense of identity, an important developmental task for individuals (Erikson, 1964). Because the family is an overarching factor in one's life from birth, often the family tends to be the first place one experiences belonging, and in some cases, not belonging (Erikson). For families undergoing frequent structural transitions and boundary renegotiation, such as military families, developing a sense of belonging, although necessary, may be a complex process. Additionally, the difficulties experienced during deployment and reintegration may create a sense of ambiguous loss, in which family members are unclear of the service member's role within the family (Faber et al., 2008). Greater feelings of ambiguous loss can lead to an exacerbated stress response among family members, increased confusion regarding roles and relationships in the family (i.e., who belongs), and ultimately, dissolution of the family (Faber et al., 2008).

Despite current research efforts to understand and examine the experiences and needs of military families, little is known about how family and service members view their fit or sense of belonging within the family and what factors are associated with higher and lower levels of belonging. The present study aims to begin validating a measure of family belonging for use with individuals in military families and develop a more comprehensive understanding of factors that contribute to a high or low sense of belonging.

Characteristics of Today's Military

As of November 2006, approximately 1.4 million troops have been deployed to Iraq and Afghanistan (MHAT, 2006) and over half of the Active Duty force (61.7%) is married and/or has a child (Department of Defense [DoD] Demographics Report, 2010). In addition, approximately 44% of active duty service members (n=625,363) have children who are either minor dependents under 20 years of age or who are 22 years of age or younger and enrolled full-time in school, and there are currently fewer active duty members than their associated family members (DoD, 2010). At present, the Department of Defense is responsible for more dependents than they have been in previous years, and the number is growing. In addition to the overall increase in military dependents, the recent operations in Iraq and Afghanistan lend themselves to a unique set of stressors that have not been present in previous wars. These demands and stressors not only have implications for the service member but also for the family structure and dynamics throughout the deployment cycle and especially during reintegration.

Demands of current military operations. The majority of research on the impact of deployment has focused on service members who were deployed during operation Desert Storm or earlier conflicts. However, deployments to Iraq and Afghanistan (Operation Iraqi Freedom [OIF] and Operation Enduring Freedom [OEF] respectively) have inherently different characteristics from previous deployments of the U.S. military (Duckworth, 2009) and the increase in troops overseas for OIF and OEF has resulted in the largest number of troops returning from a war zone since the Vietnam War (Hoge et al., 2004). Additionally, current demands on the U.S. military have been more pronounced than at any time since the Vietnam War (Hosek, Kavanagh, & Miller, 2006). With the mobilization of troops to Iraq and Afghanistan, service members have been exposed to hazardous combat zones more frequently and for longer periods of time (Powers, 2003). More specifically, the use of improvised

explosive devices and roadside bombs has placed troops at a heightened risk for serious injury (Carlock, 2007; Chandra et al., 2011). Gawande (2004) indicated that service members are not only at increased risk for death, but they are also in jeopardy of returning home after sustaining significant physical and psychological injuries (e.g., traumatic brain injury, spinal cord injuries, post traumatic stress disorder, burns, loss of limbs, hearing loss, and/or neurological deficits). Whereas individuals in previous wars would have died from such injuries, service members in Iraq and Afghanistan are surviving their injuries at far greater rates because of advances in combat medicine and improvements in armor. Further, a 2008 Congressional Research Service Report stated that while the number of documented fatalities for both OEF and OIF is 4,644, the number of troops wounded in action grew exponentially with 32,539 combat-related injuries reported (Fisher, 2008). Although the likelihood of survival is increased, service members may continue to live with permanent disabilities requiring comprehensive, lifelong care (Badr, Barker, & Milbury, 2011; Gawande, 2004). In addition to more traditional deployment concerns, these multiple, long-term, and high-risk deployments are a hallmark for the current plight that service members and their families face.

Experiential differences for branch of service. The literature indicates that the experiences of individuals from different branches of the military differ; more specifically, those in the National Guard and Reserves (NG/R) may contend with additional stressors above and beyond those experienced by those in other branches of the military. Since the mobilization of troops in 2001, the National Guard and Reserves have increased their deployments and as of 2007, over 550,000 reservists have been deployed to Iraq and Afghanistan, thus representing approximately 30% of all deployments (Werber et al, 2008). Although members of the NG/R experienced numerous and extended deployments like their active-duty counterparts in other

branches of the military, the NG/R troops were less accustomed to this deployment schedule. The National Guard and Reserves are composed of civilians who serve the military on a part-time basis while maintaining their civilian jobs and lifestyles. Like active-duty service members, those in the National Guard and Reserves experience the apprehension and uncertainty related to deployment. However, an added concern for NG/R service members is the potential for loss of civilian employment and income whilst they are serving their country (Darwin, 2009; Dunning, 1996), lack of adequate preparation for combat, and increased frequency of deployments (Werber et al., 2008). Additionally, for NG/R families, there is less support available as they often live in civilian communities without the support of other military families who can truly empathize with the situation (Keim & Vasilas, 2010; Werber et al., 2008).

Deployment and Modern Military Families

The process of deployment places unique and severe demands on military families, and with increased military commitments in multiple locales, military families have been confronted with deployments in more rapid succession (Chartrand, Frank, White, & Shope, 2008; Duckworth, 2009; Savitsky, Illingworth, & DuLaney, 2009). Military separations present families with many stressors from the disruption in routine that accompanies deployment, increased caretaking and household responsibilities, disjointed relationships, decreased emotional support, and the redistribution of roles and responsibilities upon reunion (Allen et al., 2011; Morse, 2006). In many situations, it is unknown when the service member's deployment will end, increasing the anxiety and uncertainty for military families. Additionally, whereas previous deployment cycles may have allowed for an 18-month to two-year period between deployments, some military families face another deployment of the service member within 9 – 12 months of the member's return with deployments lasting from 12 – 15 months (DoD Mental

Health Task Force, 2007). Overall, Lincoln, Swift, and Shorteno-Fraser (2008) note that "the effect of parental deployment on families and children is of mounting concern as tours lengthen and multiple deployments to combat zones increase" (p. 984).

Deployment cycle. In light of escalating deployment rates to Iraq and Afghanistan, the Department of Defense re-examined the five-stage cycle of deployment resulting in the development of a new seven-stage model with titles that are more representative of the challenges experienced at each stage (Morse, 2006). Each stage is characterized by a different set of challenges to the individuals and the family system, which include, but are not limited to, needs for emotional detachment, changes in family roles and routines, emotional destabilization, and reintegration of the returning parent. During this time, individuals within the family are likely to experience varying degrees of emotional connectedness and role ambiguity that may further affect the adjustment process (Boss, 2002; Faber et al, 2008; Logan, 1987; Pincus, House, Christensen, & Adler, 2005).

Stage 1: Anticipation of departure. The stressors surrounding deployment begin to appear long before a parent or loved one leaves. During wartime, there is an ever present fear that a service member's unit will be mobilized and deployed (Huebner, Mancini, Wilcox, Grass, & Grass, 2007). Morse (2006) indicated this is the first stage in the deployment cycle and characterized it as a point where spouses may alternate between feelings of denial and anticipation of loss. This time prior to departure is characterized as a busy time where service members must work to get their affairs in order and still be present with the family members in an effort to make memorable moments. Willerton, Schwarz, Wadsworth, and Oglesby (2011) explored military fathers' experiences with deployment and noted that one father experienced butterflies in his stomach months before deployment because of the impending reality that his

child will forget him by the time he returns. Service members often view this pre-deployment phase as an extension of deployment due to the high levels of stress they and their families experience (Hosek et al., 2006).

Stage 2: Detachment and withdrawal. As the service member's departure draws near, there is a period of emotional detachment and withdrawal (Morse, 2006). In this stage, although still physically present, service members become more and more psychologically prepared for deployment, focusing on the mission and their unit and withdrawing more from family life. Boss (1984) defines this as ambiguous presence in which a service member is physically present, but psychologically elsewhere. Bonding with their fellow service members becomes essential for unit cohesion, but may have detrimental effects on family cohesion, creating emotional distance in familial relationships. As a result, marital problems may escalate, and when couples must repeatedly distant themselves emotionally, they may gradually shut down their emotions. It may seem easier to just feel "numb" rather than sad. This stage may be reflective of lower levels of cohesion or belonging within the family as the service member and caregiver begin to emotionally withdraw.

Stage 3: Emotional disorganization. This stage of deployment is marked by the service member physically leaving, which can create a host of mixed emotions that can not only affect the partner and dependents' mental health and well-being, but also change the structure of the family. Boss (1984) describes the emotional loss during this stage as ambiguous absence, in which a service member might be physically gone, but psychologically present. In an effort to preserve the role of the service member, family members may attempt to solve problems and accomplish tasks that reflect how the service member would accomplish such tasks (e.g., "if x were here, he would…"). Other characteristics of the deployment process include the additive

effect of the emotional toll experienced during previous deployments (Morse, 2006). Given that OEF and OIF deployments can occur more frequently, some family members may be experiencing lingering burn out and fatigue from the last deployment and may feel overwhelmed with the prospect of being at this stage again. In some cases, family members who have experienced deployment before are entering this stage with fewer emotional reserves and may also experience feelings of lower cohesion and belonging.

Stage 4: Recovery and stabilization. Eventually, after an adjustment period, the family realizes they are resilient and can cope with the deployment process and experiences a period of stabilization (Morse, 2006). During this time, family members become more accustomed to their new routine and roles within the family (Chandra, 2010). Accordingly, their self-efficacy for various tasks and responsibilities increases and the family begins to develop a positive outlook. Morse (2006) cautioned that with back to back deployments, it may become more difficult to harness this emotional strength and confidence required to effectively promote their well-being.

Stage 5: Anticipation of return. As both the service member and family anticipate a homecoming, and preparations are made for the return of the service member, emotions generally run high. This stage is characterized as a happy and hectic time where neither the service member nor the family is thinking about the logistics of merging their experiences (e.g., the developmental changes that have occurred with the children, physical/mental trauma sustained by the service member, and/or renegotiation of newly established roles). Despite the excitement of a service member's homecoming, there are many aspects of reality that must be addressed to lay the foundation for more successful reintegration (Morse, 2006). The last two stages reflect the return of the service member or post-deployment stage.

Stage 6: Return adjustment and renegotiation. During this time, family members must delicately manage the clash of two extremely different worlds and learn to function as a complete family again. Cohesion during this time may be low whereas conflict may be rated as high. Boss (1984) highlights the role ambiguity that is ever present in these stages and notes that resolution of this ambiguous loss will be integral to functioning as a cohesive family and promoting one another's well-being. During this time, couples and families must reset their expectations and renegotiate their roles. Sayers, Farrow, Ross, and Oslin (2009) and Willerton et al. (2011) reported that one of the bigger challenges service members faced was how to reintegrate themselves as parents, find their place within in the family, and rebuild bonds with their children. For some families, where the service member returns with injuries, the partner or dependent may undertake the role of caregiver to the injured service member. Moreover, families may have to deal with the effects of combat stress on the service member (e.g., being irritable, withdrawn, and guarded) while attending to their own mental health needs. Consequently, attempts at renegotiation may result in increasing marital arguments. Mmari et al. (2009) stated that adolescents often reported witnessing negative changes to their parents' relationships and increased family conflict.

Stage 7: Reintegration and stabilization. The final stage of the cycle is characterized by the family members' attempts to stabilize their relationships, which can take up to six months in ideal situations (Morse, 2006). However, the presence of combat stress or physical trauma can severely disrupt the stabilization process. When a service member returns with injuries, the adjustment process is two-fold. First, there is the typical reintegration and stabilization process that occurs in an effort to transition to a life that includes the service member; second, there is the adjustment to the injury itself and what this means for the identity of the service member as

well as the family (Badr, Barker, & Milbury, 2011). The literature indicates that wives of wounded service members reported higher levels of distress than wives of non-injured service members; further, the degree to which they experience caregiver burden (e.g., emotional strain) is positively correlated with the severity level of the service member's symptoms (Beckham, Lytle, & Feldman, 1996). Moreover, partners who experience mental health problems may be less able to provide adequate social and emotional support to the veteran and other family members. Overall, when a service member returns with injuries, the process of stabilization may be prolonged and emotionally taxing for family members.

It is important to note that although reintegration and stabilization signify the final stage in the model, back-to-back deployments create an ambiguous stress as families stabilize only to have to return to Stage 1. Additionally, because deployment and return dates are tentative and multiple deployments have become more commonplace, family members' feelings of loss and insecurity increase as they attempt to cope with the fact that the service member will more than likely deploy again. For a family attempting to return to normal, this thought of redeployment can be distressing (Petty, 2009) and further attempts at adjustment may be hampered. Chandra et al. (2010) reported that the total number of months a caregiver was deployed in the past 3 years was significantly associated with greater adjustment difficulties for adolescents during the most recent deployment. Overall, the deployment cycle is a difficult time that is characterized by heightened and mixed emotions, shifting roles, and changes in family structure and relationships. This can be a trying time for families and is likely to be exacerbated by a service member returning with physical and psychological wounds.

Effects on the family environment. Military personnel and their families face stresses like repeated relocations and separations, prolonged deployments and combat related violence

(Karney & Crown, 2007; Military Family Resource Center, 2000). Taft, Schumm, Panuzio, and Proctor (2008) reported that combat exposure can lead to poorer family functioning, and Lincoln et al. (2008) indicated that having a parent sent to an active combat zone with an undetermined return date may rank as one of the most stressful events of childhood. Further, Jordan, Marmar, Fairbank, Schlenger, Kulka, Hough, et al. (1992) noted that combat-related trauma is more strongly related to poor family functioning than other individual and familial factors, and children whose parents have unresolved Post Traumatic Stress Disorder (PTSD) experience more affect dysregulation, disrupted attachments, and erratic parenting (Basham, 2008; Fitzsimons & Krause-Parello, 2009). Researchers have shown that PTSD is associated with increased interpersonal problems and significant issues with functioning in military families (Carroll, Rueger, Foy, & Donahoe, 1985; Jordan et al. 1992; Solomon, Mikulincer, Freid, & Wosner, 1987) and higher rates of PTSD have been found in military families exhibiting high conflict, low expressiveness, and lower levels of cohesion (Taft, Schumm, Panuzio, & Proctor, 2008; Westerlink & Giarratano, 1999; Zerach, Solomon, Horesh, & Ein-Dor, 2012).

A caregiver's ability to cope and level of distress associated with deployment is a significant predictor of the child or adolescent's ability to adjust and be resilient (Basham, 2008; Flake, Davis, Johnson, & Middleton, 2009). More specifically, Chandra, Lara-Cinisomo, & Jaycox et al. (2010) identified that the mental health of the non-deployed caregiver was significantly associated with the youth's overall well-being, especially with regard to peer and family functioning, emotional adjustment, and academic engagement. Even so, non-deployed caregivers may experience increased amounts of distress as they attempt to adjust to being single parents in addition to managing their own emotions and reactions to the separation (Allen et al., 2011). Rentz, Marshall, Loomis, Casteel, Martin, and Gibbs (2007) noted that this stress is

associated with an increased likelihood that the caregiver will either neglect or abuse the child, and incidence rates of childhood maltreatment among military families have increased post 9/11. Further, Rentz et al. found that maltreatment rates for military families in Texas doubled in the year following 9/11 whereas such rates for civilian families remained the same, and that prior to January 2003, maltreatment rates for military families were lower than rates in civilian families, which the researchers attributed to the increase in deployment rates post-9/11.

Up to one-third of youth between the ages of 5 and 12 who have had a parent deployed exhibited a higher likelihood of problems with social and emotional development, and children with a male caregiver deployed are more likely to have a behavior disorder (Flake et al., 2009). Further, Chandra et al. (2010) and Flake et al. (2009) found that older children exhibited more difficulties with deployment and reintegration. A review of the extant literature revealed that adolescents from military families may be particularly vulnerable. Chandra et al. (2010) reported that girls experience more challenges during their parent's deployment and reintegration. Reed, Bell, and Edwards (2011) found that adolescent girls whose parent was deployed to a combat zone exhibited depressed mood and thoughts of suicide, and adolescent boys were at increased risk of impaired well-being. Moreover, Randell, Wang, Herting, and Eggert (2006) noted that increased levels of suicide were associated with perceived conflict with parents and family depression, whereas decreased levels of risk were associated with family support. In short, more military families are facing more stressors than ever before, and youth in these families may be especially vulnerable because these hardships are being compounded with normal developmental strains they already experience. Further, if family members are experiencing their own challenges and adjustment issues, resulting in lower levels of cohesion and support, family

members who are already vulnerable may be at heightened risk for adverse effects (Zerach et al., 2012).

Reintegration Challenges

When a service member returns, there is a process of reintegration and although the period of deployment is rife with its own socioemotional and systemic challenges, this reintegration process can also be quite trying and complex (Zerach, et al. 2012). Moreover, efforts to successfully reintegrate may be hindered by life changes experienced by all members of the family (e.g., personal growth and development), multiple deployment stressors placed on the service member and family, and the physical and/or psychological trauma that a service member may endure (Huebner et al., 2007; Zerach et al, 2012). Each of these factors not only affects reintegration efforts, but can also have a profound effect on the family environment, which can play a critical role in fostering the health and well-being of the individuals within it (Johnson, LaVoie, & Mahoney, 2001).

Mmari, Roche, Sudhinaraset, and Blum (2009) indicated that the entire household routine changes when parents return; family members must get reacquainted with the service member upon return from deployment. Mmari et al. noted that one adolescent reported that it was no longer possible for her to talk to friends at a certain hour of the evening or participate in the extracurricular activities she has engaged in during the 18-month deployment because her father was home. Similarly, Mmari et al. reported a number of adolescents felt pressured to spend all of their free time with their returned parent despite many feeling that they had nothing to talk about because they "barely knew anything about him" (p. 465).

Further, the longer the service member has been away, the more difficult the reunion may be in that many developmental changes are occurring in children and adolescents during the

months of deployment. Huebner et al. (2007) noted that teens felt as though the returning parent often tried to treat them as if they were the same age and maturity level as when the parent left; additionally, adolescents voiced frustrations over not being given credit for all of the responsibilities they had undertaken while their parent was away. Not only does the family have to readjust their established household roles, but the service member must also reintegrate his or her combat identity with his or her civilian identity, which is inevitably a difficult process (Faber et al., 2008). Basham (2008) stated:

> When a warrior returns home, he or she returns a changed individual. He may have suffered profound disillusionment with the senselessness and immorality of some combat-related actions and the political decisions affecting war…they have also gained a whole new set of skills…that do not necessarily serve them well in coping with day-to-day stressors of life back home. (p.87)

Galovski and Lyons (2004) cite a qualitative study by Frederickson et al. (1996) in which five veterans' wives reported their experiences with deployment and post-deployment reintegration. Findings from this study indicate that veterans maintained an authoritarian and dominant control over the household and their emotional and behavioral withdrawal prohibited the development of real communication, affection, and trust between the veterans and their family members. Further, a review of the literature revealed that veterans' PTSD following exposure to combat violence affects veterans' familial relationships and the psychological adjustment of family members (Basham, 2008; Figley, 1998; Galovksi & Lyons, 2004). Manguno-Mire et al. (2007) reported that partners of veterans suffering from combat-related PTSD may experience significant levels of emotional distress themselves. For example, untreated service members returning with increased anxiety, panic attacks, and intermittent and

explosive anger laid the groundwork for secondary or vicarious trauma in family members (Figley, 1989; Riggs, 2000). Additionally, couples experiencing trauma often report difficulties with adjusting to the many shifts in roles and balances of power during decision making or problem solving. Basham (2008) explained the functionality of suppressing emotions and restricting communications that have served these individuals well in combat but are less conducive to healing and functioning in civilian life. As a result of this distancing, children and family members feel estranged from each other (Samper, Taft, King, & King, 2004).

Ambiguous Loss

A service member's homecoming, while a cause for celebration, can be a stressful time for families and may harbor a series of complex issues (e.g., developmental changes, physical injuries, psychological injuries, and role renegotiation). Unfortunately, when a service member departs, time does not stand still and individuals must continue with their lives in absence of key family members. During this period of separation, family members assume new roles and responsibilities, children grow and develop, and service members undergo mental and possibly physical changes of their own (Basham, 2008; Faber, et al., 2008). Upon reunion, service members and families contend with the illusion of "picking up where they left off" and the reality of having to reintroduce themselves to one another, merge their two worlds instantaneously, and function in an effective way (Faber et al., 2008) despite developmental, mental, and physical changes. Boss (1984) describes these difficulties as ambiguous loss.

Ambiguous loss stems from the notion that stress results whenever there is change within a family and the most severe stressors are those that are indeterminate and ambiguous (Boss, 1999; Boss, 2007). As a result of ambiguous loss situations, individuals develop boundary ambiguity, which Boss and Greenberg (1984) describe as "a state in which family members are

uncertain in their perception about who is in or out of the family and who is performing what roles and tasks within the family system" (p.536). The lack of clarity over the status of one family member (e.g., "will the service member return from war?" or "will the service member walk again?" or "will the service member's PTSD subside?") immobilizes other family members, leaving them in a holding pattern where important decisions are postponed, and the boundaries of the relationship remain unclear. Ambiguous loss is divided into two subcategories of ambiguous absence and ambiguous presence, both of which have been demonstrated by researchers to play an important role in the deployment process and in particular, reintegration.

Ambiguous absence. Boss (1999) defined ambiguous absence as a phenomenon that occurs when family members perceive a person to be physically absent but psychologically present (e.g., when a partner or caregiver is deployed). During this time, the family members are preoccupied with the absent relative and the roles that family members play are unclear (Boss, 1997; Boss, 2007). This is emphasized in Morse's (2006) stages of deployment in which families must grapple with the dissonance that arises when they act to the preserve the service member's roles and functions within the family (e.g., reading stories at bedtime or managing finances) and attempt to move forward with life without the service member. In these cases, family members must reframe their perception of the absence to allow themselves to temporarily undertake roles and responsibilities while honoring the service member as a viable family member (Faber et al., 2008). In other words, they must acknowledge that the tasks they are reassigning are not a permanent gesture to replace the service member, rather a means to an end to effectively function while the service member is away. This effort to stabilize and adjust to new roles is highlighted in Stage 4 of the deployment cycle (Morse, 2006). Further illustrating the concept of ambiguous absence is the stress experienced by family members on the home front as they worry about the

endangerment or loss of the service member. Kelley (1994) identified that wives of service members in the Persian Gulf reported fears regarding their husbands' safety, noting that this uncertainty was particularly distressing and many of these women experienced decreased nurturance and family cohesiveness.

Ambiguous presence. Ambiguous presence, a subset of ambiguous loss, occurs when an individual is physically present but psychologically absent (Boss, 1999; Boss, 2007; Faber et al, 2008). Ambiguous presence is most prevalent in the time prior to deployment (e.g., when a service member is emotionally withdrawing from the family as he devotes more time to building unit cohesion) and upon return or reintegration (e.g., when a soldier returns with a sense of emotional detachment). Dekel, Goldblatt, Keidar, Solomon, and Polliack (2005) stated that when a husband returns from war with PTSD, he is physically part of the family but no longer functions as a family member and is not involved with the family as he used to be. Service members returning with trauma may experience emotional numbing, which is characterized by a restricted range of emotions or sense of detachment from others. Additionally, service members may be more avoidant of situations that can trigger flashbacks or intense memories of combat (e.g., driving in traffic or going in public). These symptoms can have a negative effect on interpersonal relationships (e.g., dissatisfaction with relationships, more distancing, and less affection towards partners or children), which can affect overall levels of family cohesion and connectedness. This decrease in cohesion can also contribute to the exacerbation of PTSD symptoms because the service member is losing a valuable support system (Badr et al., 2011; Riggs et al., 1998).

Chronic boundary ambiguity has implications for overall levels of adjustment and individuals with higher perceived levels of boundary ambiguity reported greater difficulty in

adjusting after reunion (Faber et al., 2008; Huebner et al., 2007). For example, when families are separated by military deployment, they frequently hope to be reunited again but also recognize that they will never be the same as they were before the separation. Family life was almost always negatively affected by an injured parent's symptoms of anger and depression (Faber et al., 2008). Further, as family members experience chronic ambiguity over the loss of a known and familiar partner or parent, the family member may experience symptoms of depression, anxiety, and guilt (Faber et al., 2008), and some adolescents reported needing to go through a process of grieving the loss of their family as it had been before the deployment (Huebner et al., 2007).

Family Belonging

Reintegration challenges not only create a sense of boundary ambiguity but family dynamics may also be profoundly affected. The literature highlights the vital role that family members play in promoting the health and well-being of service members; however, when the well-being of the support system is compromised, the subsequent health and wellness of the service member also suffers. A single stressor or the additive effects of multiple stressors (e.g., deployment) affect the family system in harmful ways (Erbes, Meis, Polusny, & Compton, 2011; Mililiken, Auchterlonie, & Hoge, 2007). Service members returning with emotional injuries, such as PTSD, may be distant, numb, and avoidant of family members (Faber et al., 2008; Zerach et al., 2012). Moreover, the presence of physical or psychological wounds may lead to instability in relationships characterized by increased conflict and decreased cohesion among family members (Zerach et al., 2012). The constructs of family cohesion or belonging, a known protective factor for well-being, has received little attention in the empirical literature about veterans and their families (Hendrix, Jurich, & Schumm, 1995; Zerach et al., 2012).

Researchers have argued that a sense of belonging is a basic human need that is integral to the development of an individual's sense of well-being (Baumeister, 1991; Baumeister & Leary, 1995; Maslow, 1970). More specifically, Maslow (1970) argued that individuals crave and yearn for interpersonal relationships, often intensely striving for a place within a group or family much like animals exhibit tendencies to herd, to flock, and to join—in other words, to belong. This need to belong influences and motivates behavior and the fulfillment of belonging needs has been linked with individuals' physical and psychological health. For example, children have identified a sense of belonging to the family or the community as a contributing factor to their positive well-being (Gabhainn & Sixsmith, 2005). Additional conceptualizations of belonging include Hagerty, Lynch-Sauer, Patusky, Bouwsema, & Collier's (1992) view that one feels personally involved and an integral, valued member of a system or environment. Researchers have also posited that a sense of belonging is important for a positive perception of the social environment as well as of the self (i.e., identity formation) (Erikson, 1964 ; Hagerty et al. 1992). Moreover, belonging has been shown to promote resilience in adverse situations, and is considered a protective factor among adolescents (Randell, Wang, Hertling, & Eggert, 2006; Resnick, Bearman, Blum, Bauman, Harris, Jones, et al., 1997; Sammons & Batton, 2008). Further, studies have shown that a sense of belonging has a protective effect against symptoms of depression (Choenarom, Williams, & Hagerty, 2005; Hagerty & Williams, 1999). Overall, researchers have demonstrated that a sense of belonging plays an important role in psychosocial functioning, which by extension may serve as the foundation for well-being in service members and their families.

Baumeister and Leary (1995) proposed that satisfying the need to belong involves two criteria. First, individuals must engage in frequent, positive interactions with other people, and

second, this must occur in a relatively stable context in which there is mutual concern for one another's welfare. In this regard, a sense of belonging can be viewed as a reciprocal social network in which members promote feelings of inclusion, acceptance, and value. Additionally, Riggs and Riggs (2011) discussed the role of sensitive and responsive parenting as a significant protective factor and contributor to resilient adaptation. Attachment researchers (Ainsworth, Blehar, Waters, & Walls, 1978; Bowlby, 1988) posited that attachment relationships are context-sensitive in that stressful events can mediate the family processes. Accordingly, dyadic relationships between parents and children or service members and their partners are likely to be influenced by the specific experiences and circumstances surrounding military families (e.g., deployments, separations, stress, and changes in family structure). As noted throughout the deployment cycle, relationships, family structure, and roles are constantly changing (Morse, 2006); moreover, the relationships between family members may also change as a result of physical and psychological trauma (Dekel & Monson, 2010; Faber et al., 2008; Keim & Vasilas, 2010; Taft et al., 2008; Zerach et al., 2012). As a result, upon a service member's return, the attachment relationships and overall functioning in the family system will not return to the same state that existed prior to deployment and there may be confusion about how one fits in this new system and what role they should be playing (Boss & Greenberg, 1984; Riggs & Riggs, 2011).

Family belonging, also referred to as a sense of connectedness and cohesion, reflects the emotional bond and sense of closeness that family members have with other members of the family that is expressed by feelings of acceptance and belonging within the family system (McKeown et al., 1997). The literature has shown that perceptions of stronger relationships and levels of communication were associated with lower stress in couples (Allen et al, 2011; Dolan & Ender, 2008). Moreover, greater family cohesion has been associated with increased well-

being and fewer symptoms of PTSD among war veterans (Zerach et al., 2012). Despite the assertion that cohesion can be viewed as a way to promote well-being, this research does not address the role ambiguity that exists when a service member returns (Boss & Greenberg, 1984). In other words, how does cohesion promote well-being if a service member does not know how he or she fits within the new family structure or if the family members do not know how to help a service member successfully reintegrate into the family post-injury? The concept of boundary ambiguity has implications for the development of belonging that must be addressed further.

Risks of not belonging. Results of Hagerty et al.'s (2002) study examining the antecedents of sense of belonging highlight the important role that having a caring relationship with a parent plays in the development of a sense of belonging. Moreover, an unsatisfied need for belonging has been found to negatively correlate with a sense of well-being (Mellor, Stokes, Firth, Hayashi, & Cummin, 2008; Zerach et al., 2012). Baumeister and Leary (1995) examined the concept of partial deprivation and how failing to meet both criteria for belonging is often associated with increased levels of distress and possible mental illness, less than satisfactory feelings of belonging, and a lack of meaning or purpose in life. Partial deprivation can be described as feeling connected to an individual but lacking the consistent interactions necessary to fully develop a healthy, satisfactory sense of belonging (e.g., family members who are in prison, long distance relationships, or deployed military personnel). Based on the notion that unsatisfied belonging needs are negatively correlated with a sense of well-being (Mellor et al, 2008; Zerach et al., 2012) and military spouses or partners may be at risk of having unfilled belonging needs (Baumeister & Leary, 1995), there are implications for the deployment process and in particular, reintegration.

As Morse (2006) indicated, Stages 6 and 7 of the deployment cycle are marked by the service member's homecoming and the process of merging of two divergent worlds. As previously noted, this time of adjustment can be more difficult if a service member is returning with physical or psychological injuries and the process of caring for a service member can be exacerbated by the unattended mental health needs of the spouse, thus creating a less cohesive and stabilized environment for reintegration. Given that these effects appear to be cyclical and the research has suggested a reciprocal model of service member symptoms and overall family functioning (e.g., Badr et al., 2011; Dekel & Monson, 2010; Zerach et al., 2012), it is important that researchers target the role of unfulfilled belonging in adjustment and identify ways to promote belonging in an effort to promote resilience among these families.

Although social support has been known to be a central protective factor in promoting well-being and mediating effects of trauma (Allen et al., 2011; Basham et al. 2008; Dekel, et al., 2010; Faber et al., 2008), a sense of belonging in military families has not received adequate attention in the literature (e.g., Zerach et al., 2012). Many combat veterans and their partners experience acute stress responses in addition to more severe mental health diagnoses. As a result, despite the critical role that social support plays in the healing process, the quality of the social support the veteran receives from a spouse or caregiver is essentially strained. Therefore, neither the veteran nor the caregiver is getting what he or she needs to function at optimum levels for improvement and growth. Moreover, researchers have suggested a bi-directional link between well-being and levels of cohesion (Zerach et al., 2012). This means that while a service member may have injuries and wounds, he does not live in a vacuum; caring for and being in the presence of these physical and psychological injuries can not only have a direct effect on the well-being of family members, but it can also affect the service member in negative ways. For

example, a young service member who returns from combat with a spinal cord injury will likely have to deal with thoughts and emotions surrounding the loss of his "old self" (e.g., the active, mobile father of a young boy). During this process, the service member may become depressed and angry and begin to withdraw socially and emotionally. At the same time, the family members (e.g., son and wife) are undergoing their own period of adjustment and bereavement. They must juggle the fact that the service member is home, but he is not the same person that left, and they must attempt to identify how this new person fits in this family. Not only does he need assistance due to his injury, but questions arise, such as can he play in the backyard with his son again, what does this mean for the future of this family, and why is he pushing everyone away? Boss (1983) refers to this as ambiguous presence, a form of boundary ambiguity (Boss, 1999; Boss, 2007; Faber et al., 2008). As a result, family members may experience their own level of distress that may compound with the stress of the situation and create an unhealthy family dynamic where cohesion is low and conflict is high (Badr et al., 2011; Dekel & Monson, 2010; Zerach et al., 2012). Given this information, it is crucial to develop a clearer understanding of the trajectory of family belonging throughout the deployment cycle and treatment process, so that families can promote one another's healing and growth.

Overall, the literature highlights the importance of having a sense of belonging and examines the role sense of belonging plays in protecting against certain risk factors. However, despite the literature regarding the benefits of having a sense of belonging, less is known about family belonging and even less is known about family belonging in military families. The extant literature on military families addresses issues of cohesion and connectedness (e.g., Badr et al, 2011; Zerach et al., 2012) but as previously noted, these constructs do not account for the degree of fit within the system. For example, a service member may perceive a high sense of cohesion

among family members, but he may not think he actually *fits* with this cohesive unit; rather, he may feel as if he were an outsider looking in. In this regard, his sense of belonging is low. Moreover, while the literature regarding ambiguous loss addresses the lack of perceived fit and role ambiguity within the family (e.g., Boss, 1983; Boss, 1999; Boss, 2007; Carroll, Olson, & Buckmiller, 2007), it does not address the connectedness or cohesion of family members. This study proposes that the concept of family belonging addresses these two concepts and offers a more comprehensive understanding of the experiences of military families.

Measures for belonging. Current measures of belonging are few. Although there are measures for family cohesion and connectedness (e.g., Family Environment Scale, Family Assessment Device, Family Adaptability and Cohesion Evaluation Scale IV), these measures do not take into account an important aspect of belonging, which is the degree of fit within a system. The concept of fit refers to the congruence of an individual's interests and values with the interests and values of the system or family. Further, Goodenow (1992) purported that mutual feelings of inclusion and acceptance are integral components for belonging.

Family Environment Scale. The Family Environment Scale (Moos & Moos, 2002) was developed to gain a better understanding of an individual's perceptions of family, assess progress, compare family climates, and understand family responses to transitions and crises. It was originally validated using husbands and wives, adolescent boys and girls, and distressed and non-distressed families. The measure is comprised of 10 subscales, each of which taps into different aspects of the family structure; these subscales can be reduced to three overarching dimensions: relationship, personal growth, and system maintenance. While the Family Environment Scale does not address belonging specifically, it does assess cohesion, levels of expressiveness, and the opposite of cohesion, which is conflict. This measure is well-grounded

in stress and coping theory and has been used in a variety of clinical and research settings for children, adolescents, and their families.

Family Assessment Device. The Family Assessment Device (FAD) serves as a screening tool for identifying problem areas (Epstein, Bishop, & Levin, 1978; Epstein, Baldwin, & Bishop, 1983). It is based on the McMaster model of family functioning and aims to assess problems on seven dimensions: problem solving, communication, roles, affective responsiveness, affective involvement, behavioral control, and general functioning. It is designed for respondents aged 12 years and up and is comprised of 60 questions with a 4-point, Likert-type response scale (Strongly Agree – Strongly Disagree). Questions resemble "We are reluctant to show our affection for each other." On this scale, higher scores for each scale are indicative of less healthy family functioning. While this measure has strengths, such as a strong theoretical foundation and extensive research, it has its weaknesses in that it was primarily validated on Caucasian, middle-class families.

Family Adaptability and Cohesion Scale IV. The seven-item Cohesion subscale of the Family Adaptability and Cohesion Scale IV (FACES-IV) (Olson, Gorall, & Tiesel, 2006) assesses the level of cohesion within the family environment (e.g., family members feel very close to each other). This subscale consists of items with a 5-point Likert-type scale for responding (1= Strongly Disagree and 5 = Strongly Agree). On the FACES-IV, higher scores of cohesion and adaptability are more representative of balanced family types whereas lower scores are indicative of disengaged or rigid family functioning. The reliability of the cohesion scale for this study was $\alpha = .90$. Validation studies of the FACES-IV scale support its use with a variety of family structures (Olson et al., 2006).

Sense of Belonging Instrument. The Sense of Belonging Instrument (Hagerty & Patusky, 1995), while a measure of belonging and fit, does not assess the specific elements of cohesion on the family level. The Sense of Belonging Instrument is a 27-item self-report instrument designed to assess levels of sense of belonging in adults (Hagerty & Patusky). This measure was originally validated on three samples: nuns, college students, and patients seeking treatment for depression (Hagerty & Patusky). Subsequent studies have focused on the role of sense of belonging in the mediation of depression (Hagerty et al., 1996; Hagerty & Williams, 1999; Kissane & McLaren, 2006; McLaren, 2009). These studies support the sense of belonging instrument as a measure of belonging. However, the dimension of this scale targets a global sense of belonging rather than family-specific belonging.

Family Belonging Scale – Revised. The Family Belonging Scale – Revised (Leake, 2003) originated from the 13-item Parent Family Connectedness Scale. This measure was validated with step-family adolescents and provides information regarding overall cohesion among family members in addition to accounting for feelings of fit and acceptance. Given that this measure addresses both levels of cohesion and feelings of it, it will be the focus of the study. Adapting this measure for use with military families will be key to developing a better understanding of a sense of belonging in military families.

In addition to the paucity of belonging measures in the field, there are few measures that assess the systems changes that occur specifically with military families. Despite increased initiatives to develop and promote a more comprehensive understanding of the experiences of military families, ways to measure these constructs are less prevalent. This will become more important for measuring outcomes and documenting specific factors that promote and sustain well-being among troops and their families.

Current Study Goals

Through this study, the researcher aims to develop evidence for establishing validity and reliability for the Family Belonging Scale – Revised for use with military families. Additionally, the researcher will identify individual and structural factors that may contribute to higher or lower levels of belonging.

Research questions.

1. Will the unidimensional family belonging construct of the FBS-R remain intact when applied to individuals from military families?
2. Will the FBS-R correlate with previously established measures of cohesion and belonging?
3. What factors contribute to higher/lower levels of belonging?
    a. More specifically, does the presence of mental/physical illness negatively correlate with belonging?
    b. Does the number of deployments have an inverse relationship with the degree of belonging?
    c. Given that there are differences in experiences by branch of military, are there also differences in level of belonging by branch of military?
    d. Will lengthier deployments significantly contribute to lower levels of belonging?

Summary

Larger proportions of military families are experiencing increased deployment stressors that are affecting family members' ability to adjust. While researchers have identified some factors that may affect the reintegration process (e.g., ambiguous loss and physical and

psychological trauma), little is known about family members' sense of belonging and how their sense of belonging is affected during the deployment cycle. Additionally, few measures aimed to assess family dynamics, more specifically belonging, have been adapted for use with military families. The purpose of this study is to begin to validate the Family Belonging Scale – Revised as a measure of an individual's sense of belonging in military families. Additionally, the researcher will identify individual and structural factors associated with higher and lower levels of belonging.

Chapter 3: Method

The present study attempted to validate the Family Belonging Scale – Revised, a measure of family belonging, for use with military families. Correlation analyses were performed to provide evidence of convergent validity with measures of family cohesion and general sense of belonging. This study also aimed to develop a clearer understanding of factors that may contribute to higher or lower levels of family belonging for individuals from military families.

Participants

Participants included individuals from military families (i.e., service members, partners, and college-aged dependents) who experienced a deployment of the service member at least once during Operation Enduring Freedom, Operation Iraqi Freedom, and/or Operation New Dawn. Military family is further defined as those families whose service member is from any branch of the military and served in OEF/OIF/OND. Participants (N=52) consisted of 24 service members (46.2%), 24 partners/significant others of service members (46.2%), and four adult children of service members (7.7%). Of this total sample, 55.8% identified as female (n=29) and 44.2% identified as male (n=23). In addition, 78.9% of participants indicated they were living in the same household as the service member at the time of deployment. Within this overall sample, 38.4% of respondents stated the service member was in the Army, 28.8% reported Marine Corps, and 15.3% indicated the service member was in the Navy. The remaining 17.1% reported being affiliated with the Air Force, National Guard, Special Forces, or multiple branches of the military.

Instrumentation

Measures were presented to respondents through Qualtrics, an online survey management tool, in the following order: demographic information (Appendix A), Family Belonging Scale –

Revised (Appendix B), the Family Environment Scale (Appendix C), and the Sense of Belonging Instrument (Appendix D).

Demographics. Demographic information was collected to assist in identifying possible predictors of family belonging. Participants were asked a screening question at the beginning of the survey to determine the type of demographic survey the respondent would receive (i.e., service member, partner, or dependent). Each survey was specifically worded to target the respondent's identity; however, the demographic data collected remained the same.

Current age of respondent. Participant was asked to provide his or her age in years.

Sex of respondent. Participants were asked to indicate their sex. Sex of respondent was coded as 1 (female) or 2 (male).

Relationship to the service member. Respondents who are college-aged dependents of service members were asked to identify which parent was deployed and clarify the nature of the relationship (e.g., biological, adoptive, stepparent).

Deployed parent relationship status. Respondent indicated whether the deployed parent was single, married, or in a committed relationship at the time of deployment. This information was gathered to provide contextual insight into specific issues that service members and their families face regarding belonging. For example, single parent and dual deployed parent households must grant guardianship of children to a family member or friend prior to deployment.

Living with deployed parent. Respondent indicated whether he or she lived primarily in the service member's household prior to deployment and upon reintegration.

Branch of military. Because some branches of the military experience more negative effects of deployment (e.g., National Guard and Reserve), the respondent was asked to input the service member's branch of the military.

Service member physical and/or mental illness. Respondents were requested to note whether they believe the service member suffered from a physical or mental illness since returning from deployment. This may include documented disabilities or the respondents' perception of disability or illness. The yes or no response was coded as 1 or 2. If yes was endorsed, the respondent was given the opportunity to qualify this endorsement by listing the disabilities the service member has or may have.

Number of deployments. Respondent was asked to input the number of deployments the service member and family have experienced.

Approximate time between deployments. If the family has experienced more than one deployment, which is characteristic of many OEF/OIF/OND service members, the respondent was asked to indicate the time, in months, between deployments.

Average length of deployments. Respondent provided the approximate length of deployments in months.

Length of time since last deployment. Respondents indicated how long, in months, it has been since the most recent deployment.

Family Belonging Scale – Revised. The Family Belonging Scale – Revised (FBS-R) (Leake, 2003) is a 10-item measure assessing an individual's sense of belonging within her or his family. This measure originated from the 13-item Parent Family Connectedness Scale. Whereas other assessments solely measure levels of connectedness or cohesion, a fraction of belonging, the FBS-R accounts for developmental levels of fit and feelings of inclusion and acceptance.

This measure was validated on a population of adolescents from step-families and has an internal consistency of .91 with step-family adolescents and .93 with the mixed sample. The scale has a five-point Likert-type response option with 1 representing "not at all" and 5 representing "very much." The mean of all items (i.e., 1 – 5) on the FBS-R indicates the level of an individual's sense of family belonging with higher scores representing higher levels of belonging.

Family Environment Scale (Form R). The Family Environment Scale (FES) is a widely used 90-item measure that assesses socio-environmental characteristics of the family system and has satisfactory psychometric properties. The FES is written on a 6th grade reading level and individual respondents must be a minimum age of 11 years (Moos & Moos, 2002). The scales can be presented in three different forms that measure an individual's perception of the actual (Form R), ideal or preferred (Form I), and expected (Form E) family dynamics. Each form is composed of the same ten subscales that assess three overarching domains (i.e., relationship, personal growth, and system maintenance) that were derived from validation studies using samples of husbands and wives, adolescent sons and daughters, and distressed and non-distressed families. For the purpose of establishing evidence of convergent validity for the FBS-R, Form R was used to measure the respondent's current perceptions of family dynamics within the relationship dimension.

The relationship dimension of the FES is comprised of three subscales that measure levels of cohesion, expressiveness, and conflict within the family (Moos & Moos, 2002). This dimension most closely embodies elements of family belonging and the subscales within this dimension are suited for use as standalone subscales without affecting reliability or validity (e.g., Holztman & Roberts, 2012; Kaugars, Zebracki, Kichler, Fitzgerald, & Greenley, 2010; Moos & Moos, 2002; Olson, 1999; Zerach et al., 2012). Each subscale consists of nine items with

dichotomous true/false response options and is designed to identify characteristics that differentiate between distressed and non-distressed families. Responses are aggregated to produce raw scores, with higher scores on the scales reflecting higher levels of the given construct. The cohesion subscale measures the degree of commitment, help, and support that family members provide for one another. Scores for cohesion range from 1 – 9 with higher scores reflecting greater cohesion. The internal consistency for the cohesion subscale is .78 which suggests the items in this scale are a reliable measure of cohesion. The expressiveness subscale assesses the extent to which family members are encouraged to express their feelings directly. Scores for this subscale range from 1 – 9, and higher scores are indicative of greater perceptions of expressiveness within the family. The internal consistency for this subscale is .69 indicating it is an adequate measure of expressiveness. Internal reliability estimates were derived from samples of 1,468 husbands and wives, 621 adolescent sons and daughters, and drawn from 534 normal and 266 distressed families. Test-retest reliabilities at two months for the subscales were in the moderate to high range: cohesion (.86), expressiveness (.73), and conflict (.85). For the purposes of this study, the 9 – item cohesion subscale was used to establish evidence for convergent validity.

Sense of Belonging Instrument. The 27-item Sense of Belonging Instrument (SOBI) is a self-report instrument designed to assess levels of sense of belonging in adults (Hagerty & Patusky, 1995). The SOBI consists of two separately scored scales, the SOBI-P (psychological state) and SOBI-A (antecedents of belonging). The SOBI-P reflects the psychological experience of sense of belonging that taps into dimensions of the experience of being accepted or needed and fit, the perception that the individual's characteristics correspond with the system or environment (Hagerty & Patusky, 1995; Hagerty et al., 1992). This scale consists of 18 items,

scored on a 4-point Likert-type scale from 1 (strongly agree) to 4 (strongly disagree). Evidence from validation studies with nuns (a = .91), college-aged students (a = .93), and patients being treated for major depression supports this as a valid and reliable measure (a = .93). Test-retest reliability was examined only within the student sample and was also found to be high (.84). Previous studies using the SOBI-P as a measure of sense of belonging have found further support for the high reliability of the scale; Cronbach's alpha coefficients were .97 in a sample of men and women with a history of depression (Choenarom, Williams, & Hagerty, 2005), .92 among a sample of Australian retirees (Kissane & McLaren, 2006), and .96 in a sample of lesbian women (McLaren, 2009). For the purposes of establishing evidence for convergent validity for the FBS-R, the 18 items from the SOBI-P were used (Choenarom, Williams, & Hagerty, 2005; Hagerty & Patusky, 1995; Hagerty, Williams, Coyne, & Early, 1996; Hagerty, Williams, & Oe, 2002).

Procedure

This study aimed to garner participation from service members, partners, and college-aged dependents who were asked to complete an online survey comprised of demographics questions, the Family Belonging Scale – Revised, the Family Environment Scale cohesion subscale, and the Sense of Belonging Instrument. Cronbach's alpha was used to determine the level of internal consistency of the measure; to identify whether the family belonging factor remains intact, correlation analysis was used to establish evidence for convergent validity, and t-tests were utilized to identify variables associated with higher and lower levels of belonging.

Participant recruitment. Participants were recruited through email listservs for those attending colleges and universities under GI Bill benefits and through information posted through student veterans' organizations in southwestern Virginia. Specifically, two community colleges (Virginia Western Community College and New River Community College) and two

universities (Radford University and Virginia Tech) were solicited. This recruitment method primarily garnered participants who were service members/student veterans and dependents of veterans. Additional recruitment methods to identify partners of service members included making contacts with local military family groups (i.e., Wounded Warrior Program and the Military Family Support Center in Salem, VA) to disseminate study information.

Because a sufficient sample size was not obtained, additional recruitment methods sought to identify participants outside of southwestern Virginia, such as solicitation through the American Psychological Association's Division 19: Society for Military Psychology listserv, the Division 17: Society for Counseling Psychology Military Special Interest Group, student veterans organizations, military families programs, social media sites for veterans and their families, and snowball sampling, in which participants completing the survey were asked to forward the study recruitment letter and web link to others who met participation requirements.

Survey administration. The survey was provided online using Qualtrics, a survey management tool. Online survey administration was chosen for ease of access and convenience for the participants. As noted in the literature, not only do many service members and their partners have children (DoD Demographics Report, 2010) but depending on the current state of the service member's deployment and stressors in the participant's life, requiring a participant to go to a facility to take a paper/pencil survey may not have been as feasible. Upon receipt of study information (i.e., study overview and web link), participants were required to review the informed consent information prior to beginning the study. If the participants had questions regarding the study, they had the opportunity to contact the researcher at the contact information provided on the informed consent. The survey took no longer than 20 minutes to complete, and the participants responded to the survey in the following order: demographics page, the FBS-R,

the FES, and the SOBI. At the end of the survey, the participants were thanked for their time and were instructed to close their browsers.

Analyses

The survey data was cleaned, coded, and entered into SPSS 22.0 and was analyzed using internal consistency analyses, t-tests, reliability analyses, and correlations.

Validation procedures. Due to insufficient data (*N*=52), the researcher was unable to conduct principal components analysis to determine whether the family belonging factor remains intact when applied to a new population (military families). A minimum of 300 participants is sufficient to conduct factor analyses and obtain a more stable factor (Comrey & Lee, 1992). Instead of principal components analysis, the researcher used Cronbach's alpha "if item deleted function" to determine the internal consistency of the measure and identify how well each individual item contributed to or took away from the unidimensional construct of family belonging. If the alpha improved with removal of an item, then it served as evidence for further investigation of that area of the construct. In addition, the possible removal of the item in future studies with a greater sample size would be considered. After identifying items comprising the family belonging factor, reliability analyses were conducted to determine internal consistency among items as determined by coefficient alpha. An alpha greater than .70 was considered sufficient for establishing evidence for reliability. Correlational analyses were also performed to build evidence for establishing convergent validity with established measures of cohesion and general sense of belonging (i.e., FES and SOBI-P). Given that the constructs are theoretically related, the correlation was expected to be moderately high; however, the correlation would not be so high as to indicate it is measuring the same construct.

Identifying predictor variables. Due to insufficient data, multiple regression was not utilized to identify demographic factors that were associated with higher or lower levels of perceived family belonging. A test of normality was conducted. Results of this test suggested the assumption of normality was violated, and non-parametric t-tests were used to determine if there were significant differences between specific demographic variables and belonging means.

This study attempted to begin to validate the Family Belonging Scale – Revised for use with military families. More specifically, this study aimed to determine whether the construct of family belonging remains intact when applied to a sample of individuals from military families and provide evidence for convergent validity with other measures of belonging and cohesion. Finally, this study examined factors that contribute to higher or lower levels of belonging in military families such as number of deployments, presence of mental/physical illness, and length of deployments. The next chapter will focus on results of the study as they relate to the research questions and discuss how these results relate to the extant literature.

Chapter 4: Results

This chapter includes a description of decisions made while cleaning, coding, and analyzing the data. Descriptive statistics are included to provide an overview of the sample and results will be presented as they relate to the research questions. More specifically, internal consistency data (i.e., Cronbach's alpha) for the FBS-R will be presented. Correlation data will be included for the purposes of establishing convergent validity with other measures of family cohesion and sense of belonging. Further, results from tests of normality and non-parametric t-tests comparing FBS-R means across demographic variables will be presented. The researcher conducted all statistical analyses using SPSS statistical software package version 22.0 for Windows.

Data Exclusion Decisions

A total of 80 participants consented to participate in this research study. This included 28 service members, 32 partners/significant others of service members, and10 adult children of service members. Six individuals indicated none of the categories applied to them and were taken to the end of the survey and four individuals did not complete the survey after providing their consent; therefore, these 10 participants were removed from the data set. Upon further examination, the researcher identified 15 additional incomplete responses, where individuals provided initial demographic data, but did not respond to the survey items (e.g., FBS-R, FES, and SOBI-P). These cases were also removed from the data set due to significantly missing data. Finally, a review of the data revealed three service member respondents who did not meet the criteria of being deployed once during Operation Enduring Freedom, Operation Iraqi Freedom, or Operation New Dawn. These individuals indicated service dates consistent with the first Gulf War, ranging in deployment dates between 1992 and 1999 with the last deployment occurring

during this period. The researcher removed these participants' information from the dataset and further analyses. Although removal of this data reduced the overall number of participants in an already limited sample, these decisions were made to present the cleanest and most accurate data in an effort to provide validity evidence for the FBS-R for the current military population (Field, 2009).

Demographics

This section contains demographic information for the overall sample as well as the subsamples of service members, partners, and adult children of service members. After removal of missing data and data for respondents who did not meet criteria for the study, the remaining participants (N=52) consisted of 24 service members, 24 partners/significant others of service members, and four adult children of service members. Of this total sample, 55.8% identified as female and 44.2% identified as male. In addition, 78.9% of participants indicated they were living in the same household as the service member at the time of deployment. Within this overall sample, 38.4% of respondents stated the service member was in the Army, 28.8% reported Marine Corps, and 15.3% indicated the service member was in the Navy. The remaining 17.1% reported being affiliated with the Air Force, National Guard, Special Forces, or multiple branches of the military. The overall mean for ratings on the FBS-R was 4.24 (SD = .57) with a range of scores from 2.70-5.00 and a median score of 4.30. This suggests a relatively higher sense of family belonging across participants. Table 1 provides frequency information for the overall sample.

Table 1: Frequency Statistics for Demographic Variables for Overall Sample (N=52)

Variable	N	Percentage
Relationship to Service Member		
Service Member	24	46.2
Partner/Significant Other	24	46.2
Adult Child of Service Member	4	7.7
Gender		
Female	29	55.8
Male	23	44.2
Living in Household at Deployment/Reintegration		
Yes	41	78.9
No	11	21.1
Presence of Mental/Physical Illness		
Yes	20	38.5
No	32	61.5
Branch of Military		
Army	20	38.4
Navy	8	15.3
Marine Corps	15	28.8
Air Force	3	5.7
National Guard	2	3.8
Multiple Branches	3	5.7
Special Forces	1	1.9

Number of Deployments		
Low	20	39.2
High	31	60.8
Length of Deployments		
Shorter	39	78
Longer	11	22

Within the overall sample were three subsets of the sample based on the individual's relationship to the service member (e.g., the service member, the service member's partner, and the adult child of the service member). This information is included to provide insight into how the variables were represented in each group. Demographic data for these groups are presented below.

Service member. The sample of service members consisted of 24 participants, of which 8.3% identified as female (n=2) and 91.7% identified as male (n=22). Sixteen of those respondents (66.7%) indicated they were living in the household with their family at the time of their deployment and reintegration, and the remaining 33.3% of service members indicated they were not living in the same household as their family at the time of deployment. The current mean age for service members was 35.21 years (SD = 9.18) and the mean age for service members at the time of deployment was 31.29 years (SD = 9.17). Of the service member subgroup, 20.8% of respondents indicated they were single and 79.2% reported being married. Regarding branch of military services members, responses were as follows: 41.7% Army, 8.3% Navy, 25% Marine Corps, 4.2% Air Force, 8.3% National Guard, 8.3% Multiple branches, and 4.2% Special Forces. Approximately 50% endorsed being diagnosed with or suspect a diagnosis of a mental/physical illness.

Partner/significant other. Frequencies for partner/significant other demographics were also obtained and revealed 100% of partners/significant others were female with a mean age of 34.75 (SD = 7.33) at the time of completing the survey. At the time of deployment, respondents' mean age was 32.25 (SD=7.16) with a range of 21-44 years. Approximately 91.7% of respondents reported living in the household with the service member at the time of deployment/reintegration (n=22). Regarding branch of service, 37.5% reported the service member was in the Marine Corps, 33.3% Army, 25% Navy, and 4.2% Air Force. No other branches of the military were reported by those identifying as significant others/partners. Regarding mental/physical illness, 29.2% of partners endorsed that the service member was either diagnosed with or suspected of having a mental or physical illness.

Adult children of service members. The adult children of service members consisted of three females and one male. The mean age for the adult children of service members was 26.25 (SD = 6.40) at the time of the survey and 18 years (SD= 4.32) at the time of deployment. Three of these respondents reported living in the service member's household at the time of deployment/reintegration. All respondents indicated the service member was a biological father with 50% affiliated with the Army, 25% Air Force, and 25% being involved with multiple branches of the military. Twenty-five percent of respondents indicated the service member was either diagnosed with or suspected of having a mental or physical illness.

It should be noted that the overall dataset was used for the purposes of conducting analyses and answering research questions. The researcher decided this for two specific reasons. First, the goal of this study was aimed at providing validity evidence for the FBS-R for use with military families and not a specific member of the family. Second, the sample size was limited and did not provide adequate numbers to conduct meaningful analyses between groups on each

of the variables being examined. Accordingly, the data was used as a whole to increase power to detect significance.

Internal Consistency and Reliability of the Family Belonging Scale – Revised

For the purposes of determining whether the unidimensional construct of family belonging remained intact when applied to individuals from military families, the researcher used Cronbach's alpha "if item deleted function" to determine the internal consistency of the measure and identify how well each individual item contributed to or took away from the construct of family belonging. Cronbach's alpha for the 10-item Family Belonging Scale – Revised was .88 and appeared consistent with the reliability statistics from a previous study (Leake, 2003) of the FBS-R with step-family adolescents (α =.91) and with a mixed sample (α =.93). Corrected Item-Total Correlations and Cronbach's alpha if item deleted were examined to determine possible items for elimination. The two corrected item-total correlations that were the lowest were examined further using Cronbach's alpha if item deleted. It was determined that the internal consistency would not be improved if these items were removed. As a result, removing items from the measure would not make a meaningful improvement and is not warranted. Further, the internal consistency and reliability (α =.88) suggests the unidimensional construct of family belonging remains intact when applied to individuals from military families.

Evidence for Convergent Validity

In order to provide evidence of convergent validity for the FBS-R, standardized scores must first be obtained for the raw scores on the FBS-R, FES Cohesion Scale, and the SOBI-P. This allows for comparisons to be made across different measures with different units of measure. Because population data (i.e., mean and standard deviation) were not available for the majority of the measures, the researcher chose to utilize the sample data to generate a Z-score.

Z-scores were created for the aggregated raw scores from the FBS-R, FES Cohesion Scale, and the SOBI-P. These Z-scores were then compared utilizing Pearson's correlations. Z-scores for the FBS-R and the SOBI-P were significantly correlated at the .01 level, $r(48) = .526$, $p = .001$. Z-scores for the FBS-R and the FES-Cohesion subscale were also significantly correlated at the .01 level, $r(46) = .495$, $p = .001$. In addition, the Z-scores for the SOBI-P and the FES-Cohesion subscale were not significantly correlated, $r(48) = .269$, $p = .07$. This suggests the SOBI-P and the FES-Cohesion subscale do not exhibit a substantial overlap with one another. This provides further evidence that the FES-Cohesion subscale does not provide information regarding sense of belonging and the SOBI-P does not account for levels of family cohesion or connectedness. However, because the respective correlations between the FBS-R and the FES-Cohesion subscale and the FBS-R and the SOBI-P were significant, this indicates the FBS-R is likely addressing aspects of both belonging and family cohesion.

Factors Associated with Higher and Lower Levels of Belonging

Due to insufficient data, multiple regression to examine factors contributing to higher and lower levels of belonging was not conducted.

Re-coding decisions. To examine factors associated with higher and lower levels of family belonging (e.g., length of deployment, number of deployments, branch of military), the researcher reviewed the participants' free responses and coded their responses into categorical variables. The presence of mental/physical illness variable was already categorical with a yes/no response with yes coded as 1 and no coded as 2 and was not re-coded. For number of deployments, the research literature indicated service members are experiencing an increase in deployments (Chartrand, Frank, White, & Shope, 2008; Duckworth, 2009; Powers, 2003; Savitsky, Illingworth, & DuLaney, 2009); however, the literature did not specify what is

considered to be a high number of deployments. A review of the data revealed a natural delineation in responses at three deployments. The researcher chose this cutoff to determine high and low number of deployments. More specifically, less than three deployments was re-coded as low and three or more deployments was coded as high. Regarding length of deployments, the literature suggested current deployments for OEF/OIF/OND veterans lasted for 15 – 18 months (DoD Mental Health Task Force, 2007; Paley, Lester, and Mogil, 2013); this is notably longer than deployments for previous conflicts which lasted approximately 6 – 12 months. In order to create categorical variables indicating shorter vs. longer deployments, the researcher coded deployments lasting 12 months or less as shorter and those lasting above 12 months as longer, consistent with the literature. If the respondent provided multiple responses, due to experiencing multiple deployments, the researcher coded the length of deployment that was the longest. For example, if a respondent indicated deployments lasted 9 months, 9 months, and 15 months, the categorical variable applied to this would be longer because they experienced at least one deployment classified as longer. Regarding branch of service, the researcher identified that the groups for branch of service did not have an adequate number of participants to conduct meaningful analyses on all of these groups. The researcher collapsed the groups with minimal responses into an Other category, resulting in the following groups: Army (n=20), Navy (n=8), Marine Corps (n=15), and Other (n=9).

Assumptions of normality. The researcher checked for normality prior to conducting independent samples t-tests. The Shapiro-Wilk test of normality was used because this is indicated for smaller samples. According to the Shapiro-Wilk test of normality, normality cannot be assumed, W=.945, p=.033. This is consistent with a visual examination of the data

plotted on a histogram, suggesting the data is positively skewed. Due to assumptions of normality being violated for the FBS-R means, non-parametric t-tests were conducted.

Results of the Mann-Whitney U. A Mann-Whitney U was conducted to evaluate the difference between FBS-R means for those reporting physical/mental illness and those not endorsing physical/mental illness. Results of this indicated that there was no difference in FBS-R scores, U= 214, Z = -1.35, p=.176, r=.19.

Regarding the question of whether the number of deployments (i.e., low or high) was associated with differences in family belonging, as measured by FBS-R means, results of the Mann-Whitney U indicated that there was no difference in FBS-R scores for these groups, U= 246, Z = -.624, p=.533, r=.09.

To determine if there were differences in family belonging by length of deployments (i.e., shorter or longer), a Mann-Whitney U test was conducted. Results indicated that there was no difference in FBS-R scores for those experiencing shorter vs. longer deployments, U= 137, Z = -1.25, p=.211, r=.18.

Results of the Kruskal-Wallis. Due to assumptions of normality being violated, the Kruskal-Wallis test was conducted to attempt to detect differences in family belonging means among the different branches of service (Army, Navy, Marine Corps, Other). Results from this test were not significant, $\chi^2(3, N=49) = 7.54$, p= .056. This suggests there are no differences in feelings of family belonging based on branch of service. However, given the small sample size and small groups within the sample, there may not be enough power to detect a significant difference (Cohen, 1988).

Results and Research Questions

This section reviews the results with regard to each of the research questions. As previously noted, the researcher aimed to develop evidence for establishing validity and reliability for the Family Belonging Scale – Revised for use with military families and identify individual and structural factors associated with higher or lower levels of belonging. A review of the research questions with the corresponding results is included.

1. **Will the unidimensional family belonging construct of the FBS-R remain intact when applied to individuals from military families?**

The internal consistency and reliability (α =.88) suggests the unidimensional construct of family belonging remains intact when applied to individuals from military families.

2. **Will the FBS-R correlate with previously established measures of cohesion and belonging?**

Z-scores for the FBS-R and the SOBI-P were significantly correlated at the .01 level, $r(48) = .526$, $p = .001$. Z-scores for the FBS-R and the FES-Cohesion subscale were also significantly correlated at the .01 level, $r(46) = .495$, $p = .001$. In addition, the Z-scores for the SOBI-P and the FES-Cohesion subscale were not significantly correlated, $r(48) = .269$, $p = .07$. This suggests the SOBI-P and the FES-Cohesion subscale do not exhibit a substantial overlap with one another. This provides further evidence that the FES-Cohesion subscale does not provide information regarding sense of belonging and the SOBI-P does not account for levels of family cohesion or connectedness. However, because the respective correlations between the FBS-R and the FES-Cohesion subscale and the FBS-R and the SOBI-P were significant, this indicates the FBS-R is likely addressing aspects of both belonging and family cohesion.

3. What factors are associated with higher/lower levels of belonging?

Results of Mann-Whitney U and Kruskal Wallis were not significant, suggesting there were no differences in scores on the FBS-R with regard to the presence of a mental/physical illness, number of deployments, branch of military, or length of deployment.

This chapter reviewed the decisions made while cleaning, coding, and analyzing the data. The researcher provided descriptive statistics for the overall sample as well as the subsamples. Analyses and decisions regarding analyses were also recorded. Internal consistency data for the FBS-R were reviewed and correlation data were presented for the purposed of providing evidence of convergent validity with other measures of family cohesion and sense of belonging. Information regarding family belonging and how it related to different demographic factors was also included. The next chapter will discuss the current findings regarding the Family Belonging Scale – Revised in the context of the current research literature, identify implications for practice, address limitations of this study, and provide recommendations for further study.

Chapter 5: Discussion

Recent literature continues to highlight the importance of focusing on the family system to gain a clearer understanding of family dynamics and inform practice to promote prevention and treatment efforts (Beardslee et al., 2013; Cozza, Holmes, & Van Ost, 2013; Kaplow et al., 2013). Although longitudinal studies are currently underway, there continues to be little data regarding the long-term effects of deployment on families, what familial factors increase risk of maladjustment, and what ecological protective factors promote resiliency (Chandra & London, 2013; Wadsworth et al. 2013). As longitudinal studies continue, the current literature is beginning to address the importance of developing a better understanding of the effects of deployment on family dynamics and utilizing family system interventions to promote the well-being of the family unit and support the whole system rather than solely treating the veteran (Beardslee et al., 2013; Masten, 2013). However, there continues to be little research that focuses on sense of belonging, particularly family belonging, as a protective factor or support for promoting a sense of well-being and improving treatment.

This study aimed to provide validity evidence for the Family Belonging Scale – Revised for use with military families. The findings from this study suggested this may be an appropriate instrument to measure family belonging in this population. Additionally, results from this study also add to the emerging literature regarding family systems and the ecolgoical factors promoting resilency. In this chapter, results of the current study are discussed in terms of the implications for practice and limitations of the current study, and recommendations for future research related to family belonging in military families are prvoided.

Discussion of Results of the Family Belonging Scale – Revised

As previously noted, current measures of belonging are relatively scarce. Although there are measures for family cohesion and connectedness (e.g., Family Environment Scale, Family Assessment Device, Family Adaptability and Cohesion Evaluation Scale IV), these measures do not take into account an important aspect of belonging, which is the degree of fit within a system. This was further evidenced by correlation results from this study in that the Family Environment Scale – Cohesion subscale did not exhibit significant overlap with the Sense of Belonging Instrument – Psychological scale. Moreover, the concept of fit refers to the congruence of an individual's interests and values with the interests and values of the system or family, and Goodenow (1992) suggested that mutual feelings of inclusion and acceptance are integral components for belonging.

With emerging literature focusing on military family systems and the dynamics of one family member's functioning on the system, it is important to identify tools for measuring these constructs with this population. However, in addition to the general lack of belonging measures in the field, there are few measures that assess the systemic changes occurring specifically within military families. Moreover, despite increased initiatives to develop and promote a more comprehensive understanding of the experiences of military families, ways to measure these constructs are less prevalent. This will become more important for measuring outcomes and documenting specific factors that promote and sustain well-being among troops and their families.

A review of the results indicate the unidimensional construct of family belonging remained intact when applied to individuals from military families. Moreover, Cronbach's alpha for the 10-item Family Belonging Scale – Revised (α =.88) appeared relatively consistent with

the reliability statistics from a Leake's (2003) validation study with step-family adolescents (α =.91) and with a mixed sample (α =.93). In addition, it was determined that the internal consistency would not be improved if specific items were removed, thus the removal of items was not indicated. Additional analyses revealed the FBS-R not only correlates with the SOBI-P, a measure of general sense of belonging, it also correlates with the FES-Cohesion subscale which aims to measure family cohesion and connectedness. Further, the SOBI-P and the FES-Cohesion subscale did not exhibit a substantial overlap with one another, suggesting they are measuring slightly different constructs. Therefore, it is believed that the FBS-R is likely addressing aspects of both belonging and family cohesion. These findings serve to bolster the current validity and reliability evidence for the FBS-R and provide a direction for further study.

Results from the current study also indicate the majority of respondents reported experiences consistent with a higher level of family belonging (M = 4.24, SD = .57), despite the presence of mental illness, more frequent deployments, and lengthier deployments. It should be noted that although some participants reported experiencing lengthier deployments (e.g., 12-15 months) consistent with the current literature about OEF/OIF/OND (DoD Mental Health Task Force, 2007; Paley, Lester, and Mogil, 2013), the majority of participants reported shorter deployments lasting approximately 9 months or less. In addition, only 38% of participants reported the service member was diagnosed with or was suspected of having a mental/physical illness, despite the research literature suggesting a substantial increase in service members returning with physical and/or psychological wounds (Carlock, 2007; Chandra et al., 2011; Fisher, 2008; Gawande, 2004). These factors, such as lower rates of physical/mental illness and shorter lengths of deployment, may be a contributing factor to the increased levels of family belonging found in this study or family belonging may be serving as a buffer against these

stressors. Future research would benefit from examining the moderating effects of sense of family belonging on overall stress level experienced by military families.

Implications for Practice

At present, the Department of Defense is responsible for more dependents than in previous years, and the number is growing (DoD, 2010). Further, as an increasing number of troops return home through the efforts of Operation New Dawn, there is a rapidly growing population of service members and their families living in various civilian communities throughout the United States with limited access to the military communities in which they were once embedded (Murphy & Fairbank, 2013; Paley, Lester, and Mogil, 2013). Without this vital social support, it becomes increasingly more important to focus on strengthening the family system. In addition, with potential reintegration challenges facing them, these individuals are more likely to seek support from community providers to support their adjustment needs (Murphy & Fairbank, 2013; Paley, Lester, and Mogil, 2013). Therefore, gaining a better understanding of factors associated with family belonging may support efforts to build resilience within these families. With increasing initiatives focused on supporting the military family (Beardslee et al., 2013; Murphy and Fairbank, 2013; Wadworth et al. 2013), practitioners would not only benefit from becoming aware of the issues military families face, but also identifying and building upon strengths that can promote their resiliency (e.g., belonging).

Recent literature also suggests prevention and intervention efforts will be more successful when conceptualized from a contextual, systems framework and when providers are supporting the entire system, rather than the individual (Maholmes, 2012; Paley, Lester, & Mogil, 2013; Park, 2011). As previously noted, many service members rely on family members as caregivers and the service member's overall distress affects the caregiver's current level of distress and vice

versa (Wadsworth et al., 2013; Zerach et al., 2012). Although family members have been involved in care as an adjunct to therapy (i.e., a support or caregiver for the service member), additional assessment and treatment efforts should focus on integrating and supporting all family members to build a healthier system rather than solely focusing on the needs of the identified patient. Results of this study indicated there were higher levels of overall belonging and lower rates of physical/mental illness. Although it is not possible to determine how these factors affect one another, it may be helpful to explore this concept further in an effort to build supportive networks of care.

As an increasing number of veterans and their families seek care in their local communities, it would benefit providers to become aware of the issues military families face and develop an understanding of their strengths. Moreover, it would also be helpful to have access to cost-effective and reliable tools to inform their practice and monitor progress. With increasing validity evidence and normative data, the FBS-R may be an efficient tool to help therapists gain a better understanding of military families and the belonging needs of the family members.

Limitations of the Study

Although this study provided initial evidence for validation by demonstrating strong internal consistency and good correlations with other, more established measures, there are still limitations, and results should be reviewed with this information in mind. The overarching limitation for this study was sample size and methodological issues that arose as a result of having such a small sample. These limitations are discussed and recommendations are provided to address this in future studies.

One of the most prominent limitations of this study was the limited sample size, despite multiple and varied attempts to solicit participants. Because of this, a number of the projected

and more appropriate tests for a validation project were not conducted. In hindsight, it may have been beneficial to make a concerted effort to collaborate with more well-known providers of military services, who not only had access to more of the military population, but could endorse this project. This may have resulted in other barriers to participation (e.g., VA sponsored survey may not garner participants who are wary of VA services), but may have still provided multiple avenues of data collection to be able to garner a larger, more diverse sample of participants. Further, providing a web link to an online survey, although convenient for reaching individuals, may have been too impersonal for some potential participants. Research on this population has grown exponentially over the past five years and individuals may feel "too studied" without actually experiencing benefits of their participation. Efforts to address this should include making in-person contacts to help build a connection with participants and helping them understand their role in improving care. Incentives such as a donation to a charitable organization or other group for military families may also help increase participation rates.

Although there were equal groups of service members and partners responding to the survey, very few adult children of these veterans participated. Increasing recruitment efforts to target this population in an effort to gather additional evidence from this group regarding their experiences would be helpful. Moreover, this researcher did not solicit participants who were minors. The research literature indicates that although there are a number of college-aged dependents of OEF/OIF/OND veterans, there is also a substantial number of child dependents under the age of 12 (Demographics Report, 2010; MHAT, 2006). Focusing efforts to access this population would be beneficial.

One curious finding of this study was the overwhelming reports of a high sense of family belonging across participants. Although this is a strength for individuals responding to the

survey and should be celebrated, this is inconsistent with the current literature regarding military families and may be considered a limitation with regard to providing adequate evidence for validation. This may suggest those who self-selected to participate in this study were healthier individuals and were readily able to report on their experiences with deployment and reintegration. In addition, the avenues of recruitment (e.g., student veterans and military-related listservs, colleges/universities, social media sites for veterans and family members, and snowball sampling) may have tapped into a population who was already accessing supportive resources and increasing connectedness with others (e.g., social belonging), indicating a potentially higher sense of well-being. Future recruitment efforts should concentrate on identifying a broader range of participants. It will be particularly important to identify levels of belonging in clinical and/or sub-clinical populations as well as community samples to gain a better understanding of these groups and provide a diverse range of validity evidence that may be more representative of the current population. Another limitation with regard to the sample is the focus on current military families (e.g., OEF, OIF, OND). Further validation efforts should examine individuals from multiple and varied conflicts to be representative of the entire military population.

A review of the data also suggested the overall experiences of the participants were less reflective of the current literature regarding deployments and may also be contributing to a higher sense of family belonging. For example, the literature indicates OEF/OIF/OND veterans experience longer, more frequent, and an increased number of deployments, which is said to be associated with rising levels of distress in service members and their families (Chartrand, Frank, White, & Shope, 2008; Duckworth, 2009; Savitsky, Illingworth, & DuLaney, 2009; Morse, 2007). However, results from this study indicated the majority of participants experienced fewer and shorter deployments, with fewer incidences of mental and physical illness being reported.

This could provide further evidence for factors associated with healthier families and should continue to be explored.

A limitation regarding analyses was the researcher's decision to aggregate the data at differing levels (e.g., examining overall means vs. means by relationship to service member, collapsing information regarding branch of military in order to make adequate comparisons, and developing overarching categorical variables based on individuals' free responses). This could result in losing some of the nuances found in specific groups and would benefit from being explored further. Future studies should aim to engage in more purposive sampling for specific groups to not only increase representation from these groups, but also gather more in-depth evidence regarding their experiences.

Recommendations for Future Research

Emerging theoretical literature continues to emphasize the importance of focusing on the family system to gain a clearer understanding of family dynamics and inform practice with military families (Beardslee et al., 2013; Cozza, Holmes, & Van Ost, 2013; Kaplow et al., 2013; Paley, Lester, & Mogil; 2013). However, there is still little data regarding the actual dynamics in the family system (e.g., sense of cohesion or connectedness or family belonging). Although this study aimed to address some of the measurement gaps in the literature and provide a measure of family belonging for use with this population, more research should be conducted to provide additional evidence regarding the reliability and validity of this new measure. Future research should expand on this study through addresing some of the aforementioned limitations (e.g., recruitment of diverse pariticipants and increasing sample size) and continue to explore factors that affect family belonging in military families. Moreover, because there are few measures that address family belonging, additional research on the FBS-R will be necessary to help develop a

cohesive and consistent measure of family belonging with appropriate norms and standardization information.

As previously noted, future recruitment efforts should concentrate on identifying a broader range of participants. In order to utilize this scale in therapeutic settings, it will be particularly important to identify levels of belonging in clinical and/or sub-clinical populations as well as community samples to gain a better understanding of normative data for these groups. In order to provide a diverse range of validity evidence, further validation efforts should also include individuals who are ethnically and geographically diverse and who have experienced multiple and varied conflicts to be representative of the entire military population. Although the research literature suggests most individuals in the military are from more culturally diverse, rural backgrounds (DoD, 2010; Heady, 2011; U.S. Bureau of the Census, 2011; VA ORH, 2011), this information was not specifically gathered for this study due to efforts to create a succinct survey and only using questions that would provide evidence for the research questions; thus these areas were not explored. This information would be beneficial for future validation studies and provide additional insight regarding norms for this population.

Overall, service members are a valuable component of society and their families equally so. As previously mentioned, when a service member returns from combat, he or she is not alone. Each service member lives within a greater systemic framework and understanding the dynamics of stress and change within this framework will be integral to the success and well-being of everyone in the system. With changing rates of deployment, more intense (e.g., no clear or distinct front line) and increasingly dangerous levels of combat (e.g., improvised explosive devices), and a higher prevalence of family member dependents than in previous conflicts,

researchers, practitioners, and policymakers should be engaging in collaborative efforts to help promote the safety and well-being of this growing number of individuals.

References

Ainsworth, M. S. (1989). Attachments beyond infancy. *American Psychologist, 44*(4), 709-716. doi: 10.1037/0003-066X.44.4.709

Allen, E. S., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2011). On the home front: Stress for recently deployed army couples. *Family Process, 50*(2), 235-247.

Badr, H., Barker, T. M., & Milbury, K. (2011). Couples psychosocial adaptation to combat wounds and injuries. In S. M. Wadsworth & D. Riggs (Eds.), *Risk and Resilience in U.S. Military Families* (pp. 213-234). New York, NY: Springer.

Basham, K. (2008). Homecoming as safe haven or the new front: Attachment and detachment in military couples. *Clinical Social Work Journal, 36*, 83-96.

Baumeister, R. F. (1991). *Meanings of life*. New York: Guilford Press.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529.

Beardslee, W.R., Klosinski, L.E., Saltzman,W., Mogil, C., Pangelinan, S., McKnight, C.P., & Lester, P. (2013). Dissemination of family-centered prevention for military and veteran families: Adaptations and adoption within community and military systems of care. *Clinical Child and Family Psychology Review*. doi:10.1007/s10567-013-0150-2

Beardslee, W., Lester, P., Klosinski, L., Saltzman, W., Woodward, K., Nash, W., et al. (2011). Family-centered preventive intervention for military families: Implications for implementation science. *Prevention Science, 12,* 339-348.

Beckham, J. C., Lytle, B. L., & Feldman, M. E. (1996). Caregiver burden in partners of Vietnam War veterans with posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology, 64,* 1068-1072.

Boss, P. (1999). *Ambiguous loss: Learning to live with unresolved grief* Cambridge, MA: Harvard University Press.

Boss, P. (2002). Ambiguous loss: Working with families of the missing. *Family Process, 41,* 14-17.

Boss, P. (2007). Ambiguous loss theory: Challenges for scholars and practitioners. *Family Relations, 56*(2), 105-111.

Boss, P., & Couden, B. A. (2002). Ambiguous loss from chronic physical illness: Clinical interventions with individuals, couples, and families. *Journal of Clinical Psychology/In Session: Psychotherapy in Practice, 58*(11), 1351-1360.

Boss, P., & Greenberg, J. (1984). Family boundary ambiguity: A new variable in family stress theory. *Family Process, 23,* 535-546.

Boss, P., Greenberg, J., & Pearce-McCall, D. (1990). Measurement of boundary ambiguity in families. *Station Bulletin, 593*. Minneapolis: University of Minnesota, Agricultural Experiment Station.

Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development.* New York, NY: Basic Books.

Bowling, U. B., & Sherman, M. D. (2008). Welcoming them home: Supporting service members and their families in navigating tasks of reintegration. *Professional Psychology: Research and Practice, 39*(4), 451-458.

Carlock, D. (2007). A Guide to Resources for Severely Wounded Operation Iraqi Freedom (OIF) and Operation Enduring Freedom Veterans (OEF).

Carroll, E. M., Rueger, D. B., Foy, D. W., & Donahoe, C. P., Jr. (1985). Vietnam combat veterans with posttraumatic stress disorder: Analysis of marital discord and co-habitating adjustment. *Journal of Abnormal Psychology, 94*, 329-337.

Carroll, J. S., Olson, C. D., & Buckmiller, N. (2007). Family boundary ambiguity: A 30-year review of theory, research, and measurement. *Family Relations, 56*, 210-230.

Chandra, A., Lara-Cinisomo, S., Jaycox, L.H., Tanielian, T., Burns, R., Ruder, T., & Han B. (2010). Children on the homefront: the experience of children from military families. *Pediatrics*. *25*(1), 13-25.

Chandra, A., Lara-Cinisomo, S., Jaycox, L. H., Tanielian, T., Han, B., Burns, R. M., & Ruder, T. (2011). *Views from the homefront: The experiences of youth and spouses from military families.* Santa Monica, CA: RAND Corporation.

Chartrand, M. M., Frank, D. A., White, L. F., & Shope, T. R. (2008). Effect of parents' wartime deployment on the behavior of young children in military families. *Archives of Pediatrics and Adolescent Medicine, 162*(11), 1009-1014.

Choenarom, C., Wiliams, R. A., & Hagerty, B. M. (2005). The role of sense of belonging and social support on stress and depression in individuals with depression. *Archives of Psychiatric Nursing, 19*(1), 18-29.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.).* New York: Lawrence Erlbaum Associates

Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis*. Hillsdale, NJ:Erlbaum.

Dekel, R., Goldblatt, H., Keidar., M., Solomon, Z., & Polliack, M. (2005). Being a wife of a veteran with posttraumatic stress disorder. *Family Relations, 54*, 24-36.

Dekel, R., & Monson, C. M. (2010). Military related post traumatic stress disorder and family relations: Current knowledge and future directions. *Aggression & Violent Behavior, 15*(4), 303-309.

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

Department of Defense (2010). Demographics: Profile of the Military Community.

Duckworth, D. (2009). Affects of multiple deployments on families. United Sates of America War College (USAWC) Strategy Research Project. Carlisle Barracks: PA. Retrieved from http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA498029.

Dunning, C. M. (1996). From citizen to soldier: Mobilization of reservists. In R. Uranso & A. Norwood (Eds.), *Emotional aftermath of the Persian Gulf War* (pp. 197–225). Washington, DC: American Psychiatric Press.

Epstein, N.B., Bishop, D.S., & Levin, S. (1978). The McMaster Model of Family Functioning. *Journal of Marriage and Family Counselling, 4,* 19-31.

Epstein, N. B., Baldwin, L. M., & Bishop, D. S. (1983). The McMaster Family Assessment Device. *Journal of Marital and Family Therapy, 9*, 171-180.

Erbes, C. R., Meis, L. A., Polusny, M. A., & Compton, J. S. (2011). Couple adjustment and posttraumatic stress disorder in National Guard veterans of the Iraq war. *Journal of Family Psychology, 25*, 479-487.

Erikson, E. (1964). *Childhood and society.* New York: Norton.

Faber, A. J., Willerton, E., Clymer, S. R., MacDermid, S. M., & Weiss, H. M. (2008). Ambiguous absence, ambiguous presence: A qualitative study of military reserve families in wartime. *Journal of Family Psychology, 22*(2), 222-230.

Field, A. (2009). *Discovering statistics using SPSS (3rd ed.)*. London: Sage.

Figley, C. R. (1998). *Burnout in Families:The Systemic Costs of Caring.* Innovations in Psychology. Boca Raton: FL: CRC.

Figley, C. R. (1989). *Helping traumatized families.* San Francisco: Jossey-Bass.

Fisher, H. (2008). *CRS report for Congress: United States military casualty statistics: Operation Iraqi Freedom and Operation Enduring Freedom*. Retrieved from http://www.fas.org/sgp/crs/natsec/RS22452.pdf

Fitzsimons, V. M., & Krause-Parello, C. A. (2009). Military children: When parents are deployed overseas. *The Journal of School Nursing, 25*(1), 40-47.

Flake, E. M., Davis, B. E., Johnson, P. L., & Middleton, L.S. (2009). The psychosocial effects of deployment on military children. *Journal of Developmental and Behavioral Pediatrics, 30*, 271-278.

Nic Gabhainn, S., & Sixsmith, J. (2005). *Children's Understandings of Well-being.* National Children's Office, Department of Health and Children: Dublin.

Galovski, T., & Lyons, J. A. (2004). Psychological sequalae of combat violence: A review of the impact of PTSD on the veteran's family and possible interventions. *Aggression and Violent Behavior, 9*, 477-501.

Gawande, A. (2004). Casualties of war: Military care for the wounded from Iraq and Afghanistan. *New England Journal of Medicine, 351*, 2471-2475.

Goodenow, C. (1992). Strengthening the links between educational psychology and the study of social contexts. *Educational Psychologist, 27*, 177-196.

Hagerty, B. M., Lynch-Sauer, J., Patusky, K. L., Bouswema, M., & Collier, P. (1992). Sense of belonging: A vital mental health concept. *Archives of Psychiatric Nursing,* 6(3), 171-177.

Hagerty, B. M., & Patusky, K. (1995). Developing a measure of sense of belonging. *Nursing Research, 44*, 9– 13.

Hagerty, B. M., & Williams, R. A. (1999). The effects of sense of belonging, social support, conflict, and loneliness on depression. *Nursing Research, 48*(4), 215-219.

Hagerty, B. M., Williams, R. A., Coyne, J. C., & Early, M.R. (1996). Sense of belonging and indicators of social and psychological functioning. *Archives of Psychiatric Nursing, 10*(4), 235-244.

Hagerty, B. M., Williams, R. A., & Oe, H. (2002). Childhood antecedents of adult sense of belonging. *Journal of Clinical Psychology, 58*, 793-801.

Heady, H.R. (2011). Rural veterans: Invisible heroes, special people, special issues. *Journal of Rural Social Sciences, 26*(3), 1-13.

Hendrix, C. C., Jurich, A., & Schumm, W. R. (1995). Long-term impact of Vietnam war service on family environment and satisfaction. *Families in Society, 76*(8), 498-506.

Holztman, R. J., & Roberts, M. C. (2012). The role of family conflict in the relation between exposure to community violence and depressive symptoms. *Journal of Community Psychology, 40*(2), 264-275.

Hosek, J., Kavanaugh, J., & Miller, L. (2006). *How deployments affect service members.* Santa Monica, CA: RAND Corporation.

Huebner, A. J., Mancini, J. A., Wilcox, R. M., Grass, S. R., & Grass, G. A. (2007). Parental deployment and youth in military families: Exploring uncertainty and ambiguous loss. *Family Relations, 56*, 112-122.

Johnson, H. D., LaVoie, J. C., & Mahoney, M. A. (2001). Interparental conflict and family cohesion: Predictors of loneliness, social anxiety, and social avoidance in late adolescents. *Journal of Adolescent Research, 16,* 303-317.

Jordan, B. K., Marmar, C. R., Fairbank, J. A., Schlenger, W. E., Kulka, R. A., Hough, R. L., et al. (1992). Problems in families of male Vietnam veterans with posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology, 60,* 916-926.

Karney, B. R. & Crown, J. S. (2007). Families under stress: An assessment of data, theory, and research on marriage and divorce in the military. Santa Monica, CA: National Defense Research Institute, RAND Corporation.

Kaugars, A. S., Zebracki, K., Kichler, J. C., Fitzgerald, C. J., & Greenley, R. N. (2010). Use of an observational coding system with families of adolescents: Psychometric properties among pediatric and healthy populations. Journal of Pediatric Psychology. doi: 10.1093/jpepsy/jsq106

Keim, M. A., & Vasilas, C. N. (2010). *Ambiguous loss and deployment: Assisting veterans of Operations Enduring Freedom/Iraqi Freedom through application of Van Deurzen's Four Worlds Model.* Retrieved from http://counselingoutfitters.com/vistas/vistas10/Article_85.pdf

Kelley, M. L. (1994). The effects of military-induced separation on family factors and child behavior. *American Journal of Orthopsychiatry, 64*(1), 103-111).

Kissane, M., & McLaren, S. (2006). Sense of belonging as a predictor of reasons for living among older adults. *Death Studies, 30,* 243–258.

Lincoln, A., Swift, E., & Shorteno-Fraser, M. (2008). Psychological adjustment and the treatment of children and families with parents deployed in military combat. *Journal of Clinical Psychology, 64*(8), 984-992.

Logan, K. V. (1987). The emotional cycle of deployment. *U.S. Naval Institute Proceedings, 113,* 43-47.

Maholmes,V. (2012). Adjustment of children and youth in military families: Toward developmental understandings. *Child Development Perspectives, 6,* 430-435.

Manguno-Mire, G., Sautter, F., Lyons, J., Myers, L., Perry, D., Sherman, M., et al. (2007). Psychological distress and burden among female partners of combat veterans with PTSD. *The Journal of Nervous and Mental Disease, 195*(2), 144-151.

Maslow, A. (1970). *Motivation and personality, 2nd edition*. New York: Harper and Row.

McKeown, R. E., Garrison, C. Z., Jackson, K. L., Cuffe, S. P., Addy, C. L., & Waller, J. L. (1997). Family structure and cohesion and depressive symptoms in adolescents. *Journal of Research on Adolescence, 7,* 267-282.

McLaren, S. (2009). Sense of belonging to the general and lesbian communities as predictors of depression among lesbians. *Journal of Homosexuality, 56,* 1-13.

Mellor, D., Stokes, M., Firth, L., Hayashi, Y., & Cummin, R. (2008). Need for belonging, relationship satisfaction, loneliness, and life satisfaction. *Personality and Individual Differences, 45,* 213–218.

Mental Health Advisory Team (MHAT) IV Report from Operation Iraqi Freedom. Chartered by the U.S. Army Surgeon General, November 17, 2006, available on http://www.armymedicine.army.mil.

Milliken, C. S., Auchterlonie, J. L., & Hoge, C. W. (2007). Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *Journal of the American Medicine Association, 298,* 2141–2148. doi:10.1001/jama.298.18.2141

Mmari, K., Roche, K. M., Sudhinaraset, M., & Blum, R. (2009). When a parent goes off to war: Exploring the issues faced by adolescents and their families. *Youth & Society, 40*(4), 455-475.

Moos, R. & Moos, B. (2002). Family Environment Scale Manual: Development, Applications, Research - Third Edition. Palo Alto, CA: Consulting Psychologist Press.

Morse, J., (2006).*The new emotional cycles of deployment*. Retrieved from the U.S. Department of Defense: Deployment Health and Family Readiness Library: San Diego, CA. http://www.hooah4health.com/deployment/familymatters/emotionalcycle.htm

Olson, D. H., Gorall, D. M., & Tiesel, J. W. (2006). *FACES-IV Package: Administration Manual.* Minneapolis: Life Innovations, Inc.

Paley, B., Lester, P., & Mogil, C. (2013). Family systems and ecological perspectives on the impact of deployment on military families. *Clinical Child and Family Psychology Review, 16,* 245-265.

Park, N. (2011). Military children and families. *American Psychologist, 66,* 65-72.

Petty, K. (2009). *Deployment: Strategies for working with kids in military families*. St. Paul, MN: Redleaf Press.

Pincus, S. H., House, R., Christensen, J., & Adler, L. E. (2005). The emotional cycle of deployment: A military family perspective. *Journal of the Army Medical Department*, 615-623.

Powers, R. (2003). *Army National Guard history. In U.S. military*. Retrieved from http://usmilitary.about.com/library/milinfo/blarguardhistory.htm

Randell, B. P., Wang, W. L., Herting, J. R., & Eggert, L. L. (2006). Family factors predicting categories of suicide risk. *Journal of Child and Family Studies, 15*(3), 247-262. doi: 10.1007/s10826-006-9020-6

Reed, S. C., Bell, J. F., & Edwards, T. C. (2011). Adolescent well-being in Washington state military families. *American Journal of Public Health, 101*(9), 1676-1682.

Rentz, E. D., Marshall, S. W., Loomis, D., Casteel, C., Martin, S. L., & Gibbs, D. A. (2007). Effect of deployment on the occurrence of child maltreatment in military and nonmilitary families. *American Journal of Epidemiology, 165*(10), 1199-1206. doi 10.1093/aje/kwm008

Resnick, M., Bearman, P., Blum, R., Bauman, K., Harris, K., Jones, J., et al. (1997). Protecting adolescents from harm: Findings from the national longitudinal study on adolescent health. *Journal of the American Medical Association, 278*, 823-832.

Riggs, D.S. (2000). Marital and family therapy. In E. B. Foa, T. M. Keane, & M. J. Friedman (Eds.), *Effective treatments for PTSD: Practice Guidelines from the International Society for Traumatic Stress Studies* (pp. 280-301). New York, NY: Guilford Press.

Riggs, S. A., & Riggs, D. S. (2011). Risk and resilience in military families experiencing deployment: The role of the family attachment network. *Journal of Family Psychology, 25*(5), 675-687.

Sammons, M. T., & Batton, S. V. (2008). Psychological services for returning war veterans and their families: Evolving conceptualizations of the sequalae of war-zone experiences. *Journal of Clinical Psychology: In Session, 64*(8), 921-927.

Samper, R. E., Taft, C. T., King, D. W., & King, L. A. (2004). Posttraumatic stress disorder symptoms and parenting satisfaction among a national sample of male Vietnam veterans. *Journal of Traumatic Stress, 17*(4), 311-315.

Savitsky, L., Illingsworth, M., & DuLaney, M. (2009). Civilian social work: Serving the military and veteran populations. *Social Work, 54*(4), 327-339.

Sayers, S. L., Farrow, V. A., Ross, J., & Oslin, D. W. (2009). Family problems among recently returned military veterans referred for mental health evaluation. *Journal of Clinical Psychiatry, 70*, 163-170. doi: 10.4088/JCP.07m03863

Solomon, Z., Mikulincer, M., Freid, B., & Wosner, Y. (1987). Family characteristics and posttraumatic stress disorder: A follow-up of Israeli combat stress reaction casualties. *Family Process, 26*, 383-394.

Taft, C. T., Schumm, J. A., Panuzio, J., & Proctor, S. P. (2008). An examination of family adjustment among Operation Desert Storm veterans. *Journal of Consulting and Clinical Psychology, 76*(4), 648-656.

U.S. Bureau of the Census. 2011. Veterans Day 2011: November 11. Retrieved July 1, 2014 (http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb11-ff23.html).

U.S. Department of Veterans Affairs Office of Rural Health (VA ORH). 2011. "Rural Health Home ." Retrieved July 1, 2014 (http://www.ruralhealth.va.gov/RURALHEALTH/index.asp).

Vormbrock, J. (1993). Attachment theory as applied to wartime and job-related marital separation. *Child Development, 114,* 122–144.

Wadsworth, S.M., Lester, P., Marini, C., Cozza, S., Sornborger, J., Strouse, T., & Beardslee, W. (2013). Approaching family-focused systems of care for military and veteran families. *Military Behavioral Health, 1*(1), 31-40.

Werber, L., Harrell, M. C., Varda, D. M., Hall, K. C., Beckett, M. K., & Stern, S. (2008). *Deployment Experiences of Guard and Reserve Families: Implications for Support and Retention.* Santa Monica, CA: RAND Corporation.

Westerlink, J., & Giarratano, L. (1999). The impact of posttraumatic stress disorder on partners and children of Australian Vietnam veterans. *Australian and New Zealand Journal of Psychiatry, 33*, 841-847.

Willerton, E., Schwarz, R. L., Wadsworth, S. M., & Oglesby, M. S. (2011). Military fathers' perspectives on involvement. *Journal of Family Psychology, 25*(4), 521-30.

Wood, S., Scarville, J., & Gravino, K. (1995). Waiting wives: Separation and reunion among Army wives. *Armed Forces &Society, 21,* 217–236.

Zerach, G., Solomon, Z., Horesh, D., & Ein-Dor, T. (2012). Family cohesion and posttraumatic intrusion and avoidance among war veterans: a 20-year longitudinal study. *Social Psychiatry and Psychiatric Epidemiology.* Early Release. doi: 10.1007/s00127-012-0541-6

Appendix A

Demographics – Dependent

1. Please state your current age.

2. How old were you the last time your parent was deployed?

3. What is your sex?
    a. Female
    b. Male

4. Please choose the option that best describes the deployed parent's relationship to you.
    a. Adoptive Father
    b. Adoptive Mother
    c. Biological Father
    d. Biological Mother
    e. Step-Father
    f. Step-Mother
    g. Both parents are deployed
        i. Please list relationship (adoptive, biological, stepparent)_____

5. Please choose the option that best describes the deployed parent's relationship status.
    a. Single
    b. Married

c. Domestic Partnership

6. Prior to deployment and upon reintegration, were you primarily living in the service member's household?
    a. Yes
    b. No

7. In what branch of the military did the service member serve?

8. Did the service member suffer from any physical or mental illness since returning from deployment (documented or suspected)?
    a. Yes
    b. No

    If yes, please list the physical and/or mental illnesses the service member sustained:

9. How many times did your family experience the deployment of the service member?

10. If the service member was deployed more than once, approximately how much time, in months, was there between deployments?

11. Approximately how long did each deployment last?

12. Approximately how long ago was the last deployment?

Demographics – Partner

1. Please state your current age.

2. How old were you the last time your partner was deployed?

3. What is your sex?
    a. Female
    b. Male

4. Prior to deployment and upon reintegration, were you primarily living in the service member's household?
    a. Yes
    b. No

5. In what branch of the military did the service member serve?

6. Did the service member suffer from any physical or mental illness since returning from deployment (documented or suspected)?
    a. Yes
    b. No

If yes, please list the physical and/or mental illnesses the service member sustained:

7. How many times did your family experience the deployment of the service member?

8. If the service member was deployed more than once, approximately how much time, in months, was there between deployments?

9. Approximately how long did each deployment last?

10. Approximately how long ago was the last deployment?

Demographics – Service Member

1. Please state your current age.

2. How old were you the last time you were deployed?

3. What is your sex?
    a. Female
    b. Male

4. Please choose the option that best describes your relationship status.
    a. Single
    b. Married
    c. Domestic Partnership

5. Prior to deployment and upon reintegration, were you primarily living in your family's household?
    a. Yes
    b. No

6. In what branch of the military did you or are serving?

7. Did you suffer from any physical or mental illness since returning from deployment (documented or suspected)?
    a. Yes

b. No

If yes, please list the physical and/or mental illnesses you sustained:

8. How many times has your family experienced your deployment?

9. If you were deployed more than once, approximately how much time, in months, was there between deployments?

10. Approximately how long did each deployment last?

11. Approximately how long ago was the last deployment?

Appendix B

Family Belonging Scale – Revised
Leake (2003)

Please read the following statements and choose the answer that best fits your feelings and thoughts about your family.

1	2	3	4	5
Not at all	Very Little	Somewhat	Quite a Bit	Very Much

1. How much do you feel that people in your family understand you?
2. How much do you feel that you and your family have fun together?
3. How much do you feel your family pays attention to you?
4. How much do you feel that your family accepts you the way you are?
5. How much do you feel that your family appreciates your uniqueness?
6. How much do you feel that you will always have a place in your family?
7. How much do you feel that your place in your family is satisfying to you?
8. How much do you feel that you fit in with members of your family?
9. How much do you feel that your family's participation in your life is important to you?
10. How much do you feel that your family's participation in your life is satisfying to you?

Appendix C

Family Environment Scale
Moos and Moos (2002)

The following are statements about families. You are to decide which of these statements are true of your family and which are false. If you think the statement is True or mostly True of your family, choose True. If the think the statement is False or mostly False of your family, choose False.

You may feel that some of the statements are true for some family members and false for others. Choose True if the statement is true for most members. Choose False if the statement is false for most members. If the members are evenly divided, decide which is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seems like to you. So do not try to figure out how other members see your family, but do give us a general impression of your family for each statement.

1. Family members really help and support one another.
2. We often seem to be killing time at home.
3. We put a lot of energy into what we do at home.
4. There is a feeling of togetherness in our family.
5. We rarely volunteer when something has to be done at home.
6. Family members really back each other up.
7. There is very little group spirit in our family.
8. We really get along well with each other.
9. There is plenty of time and attention for everyone in our family.

Appendix D

Sense of Belonging Instrument – Psychological
Hagerty & Patusky (1995)

Choose the response that best reflects your thoughts/feelings.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

1. I wonder if I really fit in.
2. I am not sure I fit with friends.
3. I describe myself as a misfit.
4. People accept me.
5. I feel like a piece of a jigsaw puzzle.
6. I feel like what I offer is valued.
7. I feel like an outsider.
8. I have no place in this world.
9. I could disappear for days.
10. I am part of mainstream society.
11. I tend to observe life rather than participate.
12. If I died, few people would come to my funeral.
13. I feel like a square peg.
14. I really don't fit.
15. My background and experiences are different than most people's.
16. I prefer not to see or call my friends.
17. I feel left out.
18. I feel not valued or important.