WORK, STRESS, AND HEALTH OF MILITARY COUPLES ACROSS TRANSITIONS

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ABSTRACT

This chapter focuses on military couples and factors that affect their experiences of work, stress, and health using a life course perspective. An introduction to the definition of military couples is provided followed by a brief review of previous research on marital quality and divorce among military couples. The core of the chapter describes the advantages of using a life course perspective to examine the military life course for couples, and two critical transitions of military life are more fully examined. Specifically, periodic relocation and deployment and their impacts on military couples are reviewed in detail. Future directions for research on military couples are provided, and the use of the Convoy Model of Social Relations as an integrative approach to examine military personnel and family members' stress and health across the military life course is introduced.

Keywords: Military; couples; work and family; stress; health; life course; transitions

WHY STUDY MILITARY COUPLES?

It is widely known that close relationships and health are intricately tied, and there is now an emphasis on placing social connections as a public health priority (Dunkel Schetter, 2017; Holt-Lunstad, Robles, & Sbarra, 2017). While there

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are many important close relationships in a service member's life, this chapter focuses on military couples because spouses and partners are often the primary source of support for a service member, thus impacting stress, health, and well-being of the service member and the family (Norwood, Fullerton, & Hagen, 1996).

Whereas couples in the civilian workforce can experience day-to-day stress from work and family demands (e.g., work–family conflict or living in different locations), military couples have to manage these stresses within the context of military settings. There are many defining characteristics and contexts that shape the military way of life; for example, the distinct military language and culture, risk of injury and death, and the priorities of placing service before self (Segal, 1986). The military occupation inherently involves difficult and strenuous tasks that are physically and psychological demanding, and at times dangerous. When a person joins the military, their family and friends become an integral part of the military experience, as they share the lifestyle, joys, and hardships of being part of the larger military community.

Studying the contexts in which military couples live and work is important because military couples with a service member(s) in active duty, in the National Guard and Reserves (NG/R), or separated from the military can have significantly different lifestyles and challenges. During active duty, service members could be separated from friends and family periodically for prolonged periods. Daily anxiety can occur in the face of potential injury or death. Spouses and partners often have to adapt to being separated from their military partner, uproot their family and jobs to relocate, and cope with the ambiguity and stressors during military missions (Drummet, Coleman, & Cable, 2003). The task of caregiving to elderly relatives and children also fall on the spouse/partner while the service member is in training or on missions. Thus, the need to adjust to the absence and return of the service member can take a toll on the family, especially because service members are sometimes deployed for multiple times.

Service members who are transitioning out of the military have different needs and challenges than active duty service members. These veterans need to reintegrate into civilian life and adjust to being at home permanently, which may include maintaining feelings of worthiness and seeking new identities at work and at home. If they were deployed for long periods, the family also has to readjust to how the service member fits in their daily routine. The spouse/partner can play a significant role during this time, and the need for support is exemplified for veterans with severe injuries or post-traumatic stress disorder (PTSD). As a result, the marital or dating relationship can be strained during the long-term transition and recovery process. Feelings of guilt, stress, and shame may arise as spouses and partners are expected to provide support but do not receive enough support themselves, which can impact their own health and well-being. These couples may be faced with different stressors than couples with a service member in the NG/R.

For those in the NG/R, many couples have to navigate the life of the "weekend warrior" where service members are gone from home life for at least one weekend a month, also known as drill. These spouses and partners may need to

adjust to their military partner's multiple work needs on a daily or weekly basis; for example, scheduling home activities may have to accommodate the civilian job on weekdays and drills on weekends. Part-time soldiers in the NG/R have also been called upon duty more frequently than ever for domestic deployments such as hurricanes, floods, and fires. Finally, these couples also face complexities during different stages of home life. For example, birth of a newborn, increasing demands of an aging parent, and teenagers testing the limits are all cases of challenging periods in a family life and are compounded by service members' relocation and deployment cycles.

Thus, military couples can have vastly different experiences depending on their military and home life stages, and researchers need to take into account these diverse circumstances when studying military couples. In addition, although there may be differences in the working environment of the military and civilian workforces, studying military couples can generalize to mainstream occupational stress and health research in terms of understanding communication, relationship maintenance, and work and home resources and stressors. Having greater understanding of military couples can, therefore, help service members manage military and civilian work roles, reintegrate into society after their military service, provide support for their families, and be a statement of acknowledgement and appreciation for those who have served the country.

The purpose of this chapter is to understand the stress, health, and well-being of military couples within the work–family context based on available research. First, the definition of the term "military couples" is discussed, followed by a brief overview of previous research on military couples that has focused on marital quality and divorce. Next, because the military lifestyle is filled with transitions, such as team changes, base relocation, deployment, and reintegration, the core of the chapter is on a review of studies on work–family transitions using the life course perspective as a guiding theoretical framework. Mainstream occupational stress and health research on couples has been examined predominately using the demands–resources model (Bakker & Demerouti, 2013), conservation of resources theory (Grandey & Cropanzano, 1999; Hobfoll, 1989), border and boundary theories (Ashforth, Kreiner, & Fugate, 2000; Clark, 2000), spillover–crossover theory (Westman, 2001), role conflict and enhancement theories (Barnett & Hyde, 2001; Greenhaus & Beutell, 1985; Greenhaus & Powell, 2006), as well as other general stress/strain models (e.g., Frone, Yardley, & Markel, 1997). These theories and perspectives tend to focus on current contexts and health with less attention paid to changes and transitions over time. The life course perspective is unique and insightful because it focuses on changes in couples' work and personal lives over time, allowing for an examination of major work–family transitions. In particular, two work–family transitions that are important and often experienced by military couples as part of the military lifestyle, namely periodic relocation and deployment, are examined. Lastly, future directions are suggested with the aim to enhance the health and well-being of military couples by striving for a more comprehensive understanding of their work and family experiences.

WHO ARE MILITARY COUPLES?

The term "military couples" used in this chapter broadly includes couples who are married or in a committed relationship in which one or both partners is/are currently active in the military or have separated from the military. This inclusive definition was selected because military couples are an extremely diverse population with varied racial, ethnic, gender, socioeconomic, and geographical backgrounds (Blaisure, Saathoff-Wells, Pereira, MacDermid Wadsworth, & Dombro, 2015; Clever & Segal, 2013). Thus, studying military couples can be challenging because they can be difficult to identify and differentiate. For example, there are differences between military branches on how relationship status is measured. The Navy asks soldiers to select "married" or "never married" on demographic forms, whereas other branches offer "divorced" and "other" options. As a result, much of the research available on military couples has focused on married spouses due to the ease of differentiating between service members who are married and those who are not, yet committed partners who are not married but who may still be pillars of support are often left out of consideration. Therefore, the term "spouse" is used in this chapter to refer to individuals who are married and the term "partner" refers to partners in a couple in general, including couples who are married, cohabitating, and dating, to be inclusive of and recognize these partners who may be strong supports for service members and play important roles in their military and personal lives.

Another reason for research to focus on married military couples is that the Department of Defense (DoD) recognizes marital relationships for the purpose of receiving benefits. Based on the reports of 2013, 2.2 million service members reported 3 million family members, of which 1.1 million were spouses (Office of the Deputy Assistant Secretary of Defense, 2014). Approximately 57% of active duty service members and 55% of reserve personnel reported family obligations (Office of the Deputy Assistant Secretary of Defense, 2014). Thirty-seven percent of reported family members were spouses and 63% were children. Across both active and reserve components, enlisted members and junior officers are less likely to be married than are senior enlisted members and senior officers. This may be, in large part, due to age differences, as junior service members are traditionally younger. Fifty-six percent of active duty personnel and 46% of reservists were married (Office of the Deputy Assistant Secretary of Defense, 2014). Furthermore, approximately 2.2% of the military personnel are lesbian, gay, and bisexuals (Gates, 2010). It is unclear as to how many of them are in committed relationships or married, but they are important to be taken into account, particularly in light of recent changes in both military policies and federal laws that allow same-sex spouses and families to receive benefits.

Based on the current research, one shortcoming of the literature on military couples is that it often focuses exclusively on married military couples, specifically military husbands and civilian wives (due to a majority of military couples identifying as such), with limited attention given to female service members with partners, same-sex couples, and marriages where both partners are service members (officially called dual-military couples). As a result, despite the fact that the majority of research covered in this chapter examined the male/female

partnership, future research should examine military marriages and partnerships outside of traditional heterosexual relationships.

UNDERSTANDING RESEARCH ON MILITARY COUPLES

Previous Research on Married Military Couples

Much of the research on military couples in the past two decades has focused on examining influences within the marital relationship, such as marital satisfaction and divorce (Karney & Crown, 2007; Renshaw, Rodrigues, & Jones, 2008), communication skills (Blanchard, Hawkins, Baldwin, & Fawcett, 2009), and aggression and conflict (Heyman & Neidig, 1999; Marshall, Panuzio, & Taft, 2005). There are a considerable amount of studies on the effects of PTSD and the effects of alcohol use on couples' relationship quality (e.g., Allen, Rhoades, Stanley, & Markman, 2010; Cunradi, Caetano, & Schafer, 2002; Monson, Taft, & Fredman, 2009), as well as developments of couples therapy and programs to improve couples' communication (e.g., Gottman, Gottman, & Atkins, 2011). These studies have provided important knowledge to understand the trends of marriage and divorce of military couples, as well as risk factors that contribute to the likelihood of divorce.

Karney and Crown (2007) offers the thoughtful idea that there is a selection issue within military marriages. It is possible that some divorce cases among service members may stem from potentially premature marriages. Service men and women consistently marry at younger rates than the general US population, a fact, which Karney and Crown argue, is incentivized by the military due in part to the increased richness of benefits available to married service members. For example, married service members are compensated at a higher rate during deployments than are their single counterparts to account for "separation." Fortunately, recent research suggests that divorce rates are not as high as previously believed (Karney & Crown, 2007). Some researchers (e.g., Lundquist & Smith, 2005) have pointed out that since the institution of an all-volunteer force, military policies have been increasingly friendly to families and marriages, which may help marriages remain intact. While research is needed to examine the efficacy of these family-friendly military policies on family relationships and well-being, their existence has provided military families with access to potentially advantageous support systems (e.g., doctors and employment assistance) not available to civilian families.

However, in addition to research on military couples' marriages, researchers have repeatedly called for an expansion of the range of relevant predictors and outcomes of military couples beyond predictors of divorce (Karney & Crown, 2007; MacLean & Elder, 2007). The rest of this chapter answers this call by closely examining major work transitions that can impact military couples' stress, health, and well-being beginning with an examination of the military life course.

Military Service and the Life Course

Military life for both the service member and the partner begins when the service member decides to join the military, but it does not end when they end their

service as the effects of being in the military continue throughout life. The life course perspective posits that earlier experiences in life, such as deployment and combat exposure, can shape the trajectories of our lives and the outcomes that occur later in life (e.g., stress, health, and well-being; MacLean & Elder, 2007). These trajectories can further be changed during major life transitions, for example, getting married or having children can have significant impact on later life outcomes. It is well-known that a defining characteristic of military life is that service members have to go through many transitions, from training and rotations to pre- and post-deployment to reintegration to civilian life. Personal lives also go through multiple transitions, such as parenthood, caregiving, re-employment, and relocation, which lead to the need for military couples to adapt quickly and frequently. As such, military service is a prime example that illustrates the principles of the life course perspective.

The idea of examining military service in the life course is not new (Clever & Segal, 2013; Elder, Gimbel, & Ivie, 1991; Gade, 1991; Modell & Haggerty, 1991; MacLean & Elder, 2007). Adopting a life course perspective was even hailed as a turning point for military personnel research in the early 1990s (Gade, 1991). One reason for this push to view military service through a life course lens was to change from an outcome-based approach in research, which links outcomes to antecedent events, to an event-based model, which links events to subsequent outcomes (Gade, 1991). Rather than focusing on a particular outcome, this approach is particularly useful in determining whether a transition, event, or intervention leads to positive or negative short-term and long-term consequences for service members and their families. Another major reason for adopting the life course perspective is that it emphasizes that the service member and partner are embedded within larger family, community, societal, and historical contexts, thus connecting the couple's life story to that of their changing relationships and environments throughout their military career, civilian career, and personal lives (MacLean & Elder, 2007).

The life course perspective has been increasingly considered as a vigorous and holistic framework for understanding military life (e.g., Drummet et al., 2003; Lundquist & Xu, 2014). In 2010, a report by the DoD published the Composite Life Cycle Model, which was based on Transitional Psychology and the Life Stage Theory (Chiarelli, 2010). The report focused on the idea of examining the effects of transitions, major life events, and stressors in the military. The model proposes that, in order to enhance service member well-being and reduce stress, the military needs "to focus on the whole person through a composite view of three separate strands: the Unit Life Cycle, the Soldier Life Cycle, and the Family Life Cycle" (Chiarelli, 2010, pp. 90–91). The Unit Life Cycle mainly comprises transitions that occur for the military unit, including pre-deployment, deployment, post-deployment, and reintegration or reset. The Soldier Life Cycle comprises transitions and events related to the military career, such as recruitment, reassignment, promotion, death of a squad member, and retirement. Finally, the Family Life Cycle recognizes major life events of a personal nature, such as marriage, childbirth, and geographic separation. The Composite Life Cycle Model portrays the complexities of military and family lives by showing that transitions in one

strand do not necessarily synchronize with transitions in another strand, which can amplify the amount of stress felt by service members and their partners. It also suggests that if stress is not properly managed or reduced before the next transition (e.g., redeployment and financial difficulties after childbirth), it can accumulate over time with adverse impacts (Chiarelli, 2010).

In a follow-up report, one of the Army's major goals was to "set conditions to incorporate the Composite Life Cycle Model" and "to include identification of stress clusters in the Life Cycle strands of Unit, Soldier, and Family" (Chiarelli, 2010, p. 14). Since then, much of the attention to these reports has been on suicide prevention and couples' relationship education. Recommendations from researchers and the Army report indicate that more research is needed to identify stressors that relate to all three strands of the model to understand their effects on the service member and families (Chiarelli, 2010; Karney & Crown, 2007).

Although relatively little research on the military has explicitly drawn from the Composite Life Cycle Model (George, 2003; MacLean & Elder, 2007), researchers have examined military service using the broader life course perspective or with an event-based approach. A few studies on military families, including the Millennium Cohort Family Study (Crum-Cianflone, Fairbank, Marmar, & Schlenger, 2014), the Deployment Life Study (Meadows et al., 2016), and the Study on Employment Retention of Veterans (SERVe; Hammer, Wan, Brockwood, Mohr, & Carlson, 2017) have included spouses in their longitudinal studies and are discussed later in the section.

Transitions in the Military Life Course

The life course perspective emphasizes the ways in which transitions can have significant positive and negative impact on the trajectories of our lives. There are many important and common transitional events that can occur during a military life course, including the timing of recruitment and separation, the timing of when two individuals become a couple (e.g., before recruitment, during active service, or post-service), transitions within the military service (e.g., reassignment, relocation, and base closure), marriage and caregiving for children and relatives, and reintegration and reset. Resilience and adjustment to transitions can be key to creating positive experiences and outcomes for military couples. In this section, two specific transitional events – periodic relocation and deployment – are discussed because they are often experienced by military couples due to the military lifestyle and have been studied relatively more extensively in the literature.

Relocation

Periodic relocation is one of the hallmark transitions of military life. The active duty lifestyle, in particular, is inherently mobile and moves are frequent. For example, the Army relocates service members and their families, on average, every two to three years (Blaisure et al., 2015; Burrell, 2006). In the United States, a permanent change of station occurs when the military assigns a service member to a new duty station, leading to a relocation of military and personal lives. Military

families move two to four times more than civilian families, and at times with little notice (Clever & Segal, 2013; Drummet et al., 2003). Compared to moves among civilian families, military relocation is more likely to be international or involve longer distances domestically (Booth et al., 2007; Griffith, Stewart, & Cato, 1988; Pittman & Bowen, 1994). Spouses, partners, and dependents are likely to move with the service member if the new station is at a significant distance from the former station. Each move can be considered as a new transition (i.e., a new turning point in the life course) that requires adjusting for both partners.

Although service members can indicate a preference as to where they would like to be stationed, the assignment ultimately depends on the needs of the military (Blaisure et al., 2015). As a result, while deployment was cited most often by spouses as the most stressful situation in the past five years, relocation was the next most cited stressful adjustment associated with military life for the couple (Dimiceli, Steinhardt, & Smith, 2010; Henry & Robichaux, 1999). Surveys of Army soldiers revealed that problems with the move, little notice for the move, finding and waiting for permanent housing, setting up the new household, and financial costs and delays in reimbursements all contribute to the stress associated with relocating (Booth et al., 2007; Bowen, Orthner, Zimmerman, & Meechan, 1992).

Relocation Effects on Couples. "Trailing spouses" is a term used to describe spouses (and partners) who frequently relocate due to their partner's employment (Keenan, 2011). Some partners adjust well to relocation and find exciting the opportunity to move to different places. One study found that the number of relocations was positively associated with well-being (Burrell, Adams, Durand, & Castro, 2006), whereas another found no relationship between relocation and well-being (Brett, 1982). For couples with children, research has found that children can have positive experiences (particularly academically) and not be significantly affected by relocations (Burland & Lundquist, 2013), whereas parents may be emotionally and physically spent due to the move (Drummet et al., 2003; Puskar, Wilson, & Moonis, 1990; Segal, 1986). Although relocation is a well-known part of military life and can be considered normative, some partners may have difficulties adapting to such frequent changes and unfamiliar surroundings and routines. Cumulative risk can also build up if partners have to relocate again before they have fully adjusted to the current living situation (Black, 1993). In cases where the couple has to relocate overseas, research has found negative influences of relocating on psychological and emotional health, although the effects varied depending on individual circumstances (Blakely, Hennessy, Chung, & Skirton, 2012; Burrell et al., 2006). Thus, over time, although there can be cumulative positive impact of relocating, such as exposure to different cultures, cumulative negative impact of relocating can be detrimental not only to the couple's relationship due to increased conflict, but also to their individual physical and psychological well-being later in life due to prolonged stress and maladjustment.

One reason for increased stress associated with moving is the loss of social support networks. This loss can occur within the military, for example, soldiers

can return from deployment to find that they need to relocate because of a base closure and realignment, resulting in a fractured network support and loss of familiar access to military services. Loss can also occur outside the military as the service member and partner have to leave behind friends and family (Dimiceli et al., 2010), which can result in decreased social support and increased social isolation during an already stressful transition (Jervis, 2009; McNulty, 2003). Some couples may also experience cultural shock at their new location, which may add to the difficulty of establishing new close relationships, or they may think that the temporary nature of the move makes the emotional investment needed to form new friendships less worthwhile. Over time, lack of an adequate support network may take a toll on the couple's psychological health. Fortunately, research has found that social support from the community (e.g., military support personnel and participation in recreational programs) and from friends has a positive impact on military spouses' adjustment to relocation, with an even greater impact than the family's internal resources (e.g., supportive communication and family cohesion; Blakely et al., 2012; Lavee, McCubbin, & Patterson, 1985). Therefore, in addition to considering relocation as an opportunity for a positive bonding experience for the couple (Copeland & Norell, 2002), having greater external social support is essential to reducing stress and facilitating adjustment to frequent relocations. However, the use of military support services is affected by stigma and the military culture of sacrifice and putting duty first (Drummet et al., 2003). Given that the retention of service members can depend on spouses' satisfaction with the military (Bowen, 1987; Lakhani et al., 1985; Lundquist & Xu, 2014), reducing stigma and providing opportunities to maintain social support with existing support systems may be crucial for military couples as they adjust to their new location and build new supports. Having a supportive network during relocation may then promote a more positive trajectory for the couple's military life course, as well as enhance the quality of and extend the service member's active service.

Apart from a loss of external support due to relocation, military partners are also at risk of a loss of self-identity, including loss of individuality (i.e., being known as the "partner of" the service member) and loss of career identity. While some partners are content with either finding temporary jobs or not working, others experience feelings of worthlessness and stress associated with not being able to develop a career of their own (Jervis, 2009). Among civilian partners of service members, relocating is associated with difficulties in finding employment, a significant decline in employment, as well as a decline in work hours among those who remained employed (Cooke & Speirs, 2005; Southwell & MacDermid Wadsworth, 2016). Research has repeatedly shown that spouses believed that relocating has affected their employment opportunities, earning potential, career goals, difficulties in obtaining childcare, and employer bias and unwillingness to invest in an employee who may leave soon (Booth & Lederer, 2012; Castaneda & Harrell, 2008; Trougakos, Bull, Green, MacDermid, & Weiss, 2007). Compared to their civilian counterparts, wives of service members earn significantly less even if they are working for similar hours (Meadows, Griffin, Karney, & Pollak, 2016). Over the life course, military partners may be at a cumulative disadvantage in terms of employment and educational opportunities due

to relocation. Since military partners' well-being and their satisfaction with the military depends on the quality of their employment (in addition to the quality of family life), employment assistant programs are effective and are needed to help partners obtain employment and boost their self-efficacy in order to lessen any long-term disadvantage accrued due to multiple relocations (Trougakos et al., 2007).

Based on the studies reviewed on relocation, most were conducted cross-sectionally or retrospectively, which makes it difficult to determine whether relocation, or which part of a relocation, has significant impact on couples. Examining the life course of military couples by taking into account pre-, during, and post-relocation (over multiple relocations) can greatly improve our understanding of their experiences, which is important, especially because relocation is a common, normative part of military life for couples. In addition, the majority of these studies examined only married spousal outcomes. Most of the studies did not include both partners of the same couple, making it difficult to understand how these partners help each other or cause strain for each other during a relocation transition. Lastly, the current literature focused mainly on active duty military couples in which a service member is married to a civilian partner. Dual military couples and NG/R have significantly different sets of challenges when there is a need to relocate. For example, NG/R who would like to relocate for personal or professional reasons in their civilian career may be unable to do so due to their military service. By expanding the study of relocation to identify the needs and challenges that occur over time for military couples among different branches and components, researchers may be able to help service members and their families establish a positive trajectory with better performance and quality of life.

Deployment

Apart from periodic relocation, deployment is another major transitional event that is commonly experienced by military couples. In the United States, there was a surge in deployment post-9/11 with peak deployments occurring in the mid-to-late 2000s (Meadows et al., 2016). Since then, deployments have been declining for both active duty and NG/R, but the nature of a volunteer military and the increased dependence on reserve components mean a greater likelihood of being deployed multiple times (Werber, Harrell, Varda, Hall, & Beckett, 2009). Deployments are assigned in all military branches and components, and can range from one week to 12 or 18 months or longer (Blaisure et al., 2015). Missions can be for combat, peacekeeping, or humanitarian purposes, which mean that deployments can be planned ahead of time with lengthy notice to make preparations, or with little notice, such as a response to a natural disaster.

Deployments can affect military couples in many ways. For the service member, especially for those with post-deployment PTSD symptoms and higher levels of stress, deployment has been associated with more marital conflict, increased risk of divorce, less satisfaction with the military, greater need for support, and greater economic strain (Allen et al., 2010; Allen, Rhoades, Stanley, & Markman, 2011; Karney & Crown, 2007; Negrusa, Negrusa, & Hosek, 2014). As for the

spouse, deployment has consistently been linked to a wide range of mental health diagnoses (Mansfield et al., 2010). Longer deployment periods, deployment extensions, and combat exposure have been associated with more psychological problems for the spouse (Allen et al., 2011; De Burgh, White, Fear, & Iversen, 2011). Moreover, although deployment status was not associated with weight status, decreased social support was associated with the risk of being overweight or obese for spouses, which highlights the importance of perceived social support for spouses regardless of whether or not their military partner is deployed (Fish, Harrington, Bellin, & Shaw, 2014).

Deployment is also a unique transition to study because there may be gender differences in deployment effects for couples. Female service members are less likely to relocate and deploy less frequently than male service members (Southwell & MacDermid Wadsworth, 2016). At the same time, husbands of female service members work for more hours than wives of male service members, and are more likely to report lower marital satisfaction, less community support, and less satisfaction with the military lifestyle (Southwell & MacDermid Wadsworth, 2016). Given the importance of social support, support programs may be critical for both spousal satisfaction and service member retention. One study using data from the Military Family Life Project, a longitudinal study on active duty military spouses that started in 2010 (2010 Military Family Life Project, 2011; 2011 Military Family Life Project, 2012), found that although few spouses utilized support programs requiring active engagement (e.g., family readiness and spousal support groups, in-person or web-based counseling, and reunion planning class), the programs were effective when utilized (Clark, Jordan, & Clark, 2013). This finding suggests that more work is needed to engage spouses to participate in these programs to overcome challenges that accompany deployment.

Deployment as a Cycle. Deployment is a transition in a military life course with several adjustment stages as exemplified by the Emotional Cycle of Deployment Model (DeVoe & Ross, 2012; Logan, 1987; Pincus, House, Christenson, & Adler, 2001). The stages include pre-deployment, during deployment/sustainment, and post-deployment (after deployment) (Blaisure et al., 2015; Pincus et al., 2001). Although the studies reviewed so far have examined the impact of deployment on the service member, the spouse, or the couple as a whole, one limitation is that most of these studies were cross-sectional or longitudinal but within one deployment stage (e.g., two-wave study post-deployment), which limits the investigation of deployment as multiple stages that occur over time.

The cycle of deployment is normative in the military life course and couples may react to each deployment stage with normative responses (e.g., stress, uncertainty, anxiety, and stabilization). However, there can be different sets of issues that couples face at each stage (Laser & Stephens, 2011). During the pre-deployment stage, couples may experience stress and an anticipation of loss while having to prepare the family financially, legally, and emotionally for the deployment. During deployment, an adaptation period is needed as partners settle into

a new communication pattern in terms of both form (e.g., phone and online) and frequency. Spouses may experience isolation or lack of social support, increased stress from household responsibilities, and emotional or psychological health issues while the service member is away (Lufkin, 2017; Southwell & MacDermid Wadsworth, 2016). It is clear from research that social support is imperative to build and maintain resiliency among spouses during this time (Skomorovsky, 2014). Finally, during the post-deployment stage, service members and partners who are able to adapt to new roles during each transition, including the absence and return of the service member to home life, are typically able to adjust well (MacDermid Wadsworth, 2010).

In order to better understand how military couples experience and cope with the challenges of deployment, the following studies examined health and well-being outcomes of married individuals or couples across two or more deployment stages. For marital functioning, one study examined changes in marital satisfaction from pre-deployment to post-deployment (Parcell & Maguire, 2014). While some couples experience a decrease in marital satisfaction post-deployment, the majority are able to rebound to the level of marital satisfaction pre-deployment or perceive even higher marital satisfaction post-deployment. These distinct martial trajectories reflect the diversity of military couples and the varied experiences they have in military and personal lives, suggesting that most couples are able to adjust well in spite of going through multiple stages of major transition over a short period.

As for psychological functioning, Erbes, Kramer, Arbisi, DeGarmo, and Polusny (2017) found distinct trajectories of depressive symptoms and alcohol misuse across the deployment stages among partners of deployed NG personnel. The majority of the partners were considered as part of the "resilience" group, meaning they showed low distress and alcohol misuse over time, whereas other groups of partners showed varying levels of distress and alcohol misuse at different points of different stages (e.g., increase during pre-deployment vs increase at beginning of deployment or decrease during deployment vs decrease post-deployment). The significance of examining trajectories as part of the military life course lies in the identification of predictors of trajectories, such as neuroticism, family readiness, and low social support. This allows for more targeted interventions to prevent at-risk couples from continuing on a high-risk trajectory prior to the development of distress and alcohol problems.

Due to the motivation to understand the impact of deployment on military families, identify predictors of trajectories, and inform policy, one recent landmark study, "The Deployment Life Study," investigated family readiness across the cycle of deployment (Meadows et al. 2016). It is currently the only study specifically designed to measure a wide array of relational, health, and well-being outcomes across the deployment cycle of multiple family members. The study involved the service member, spouses, and one child aged between of 11 and 17 years (if available). Notably, service members (and their families) were eligible only if the service member was not deployed at baseline. This design allows for a clear examination of changes in individual, couple, and family functioning from pre-, mid- to post-deployment. Based on analysis of the deployment cycle over three years, Meadows et al. (2016) reported that couples, on average, became less

satisfied with their marriage over time, and that this decrease did not significantly differ between couples with a deployed and non-deployed service member. The systematic comparison between deployed and non-deployed couples allowed researchers to determine that the decrease in marital satisfaction is normative for those who had a deployment. Examining pre-, mid-, and post-deployment changes also revealed that more frequent communication with the service member during deployment predicted greater marital satisfaction for spouses at post-deployment, thus providing a clear, attainable point of intervention specifically to increase communication during deployment for better post-deployment outcomes. Similarly, the findings for health and well-being indicated separation from the military is another potential intervention point because those who separated or retired were at increased risk of psychological symptoms.

It can be seen that these studies examining longitudinal changes from pre-deployment to post-deployment and include both partners of the same couple can provide valuable information on the health and well-being of military couples over time. The Millennium Cohort Family Study, an expansion of the Millenium Cohort Study, which has been ongoing for 20+ years, is another example of a longitudinal study that started in 2011 to include spouses in addition to service members (Crum-Cianflone et al., 2014). Since these studies are expensive, time-consuming, and require significant resources and effort, secondary data analysis is encouraged to make use of this wealth of data if it is made available publically. One possible future direction is to examine the effects of multiple deployments when more waves of data become available, and determine whether stress across multiple deployments is additive or cumulative and whether it is similar for each family member. It is exciting that longitudinal couple data are increasingly valued and recognized as important to our understanding of the military life course for couples. Using the life course perspective as a way of studying the military transitions of relocation and deployments among military couples can be an important and useful framework for understanding their health and well-being. Next, we provide some potential avenues for future research.

FUTURE DIRECTIONS

In the previous section, we focused on examining married military individuals, military spouses and partners, and military couples embedded within the larger military life course. We discussed and provided critical assessment of studies on two major transitions that have significant impact on military couples. Based on this review, we suggest several priorities for future research on military couples and on the military life course in general.

Expand Research on Military Couples

Studies to Include Both Partners of a Couple and Expand Range of Outcomes

The most noteworthy observation of the studies included in this chapter is that many studies examined married individuals and comparatively fewer studies

included both partners from the same couple. Whereas there is an abundance of dyadic research on civilian couples, we have less knowledge of how military couples interact and influence each other within their larger family and military contexts. Several studies, for example, have examined the effects of work–family conflict, burnout, and job stress among military couples (Westman, 2005; Westman & Etzion, 1995; Westman & Vinokur, 1998; Westman, Vinokur, Hamilton, & Roziner, 2004). However, these studies did not examine the effects of work–family conflict and burnout during major transitions, which may be more stressful and have greater impact on the couple. In addition, reviews of the literature on military marriages (Karney & Crown, 2011; MacLean & Elder, 2007) have pointed out that we need to examine relevant predictors and outcomes of military couples beyond their communication styles, marital quality, and divorce risk. For example, the timing of romantic formation (before recruitment, during service, or after service) may play an important role on the development of the relationship and the couple's resilience to stressors during and after military service.

Another future direction is to expand military couples' research on reintegration into the civilian workforce. Studies on reintegration have mainly focused on service members' employment and financial well-being (Elbogen, Johnson, Wagner, Newton, & Beckham, 2012; Hall, Harrell, Bicksler, Stewart, & Fisher, 2014; Kleykamp, 2013) and NG/R who have periodic drills and have to transition frequently between military and civilian work roles (Nagl & Sharp, 2010). Less is understood about the impact of military service on spouse's/partner's employment and earning potential after the military service has ended. For example, military partners earn less than their civilian counterparts even if they work for a similar number of hours (Meadows et al., 2016). Thus, remain the following major questions: Does the employment and wage gap between military partners and civilian counterparts dissipate over time? Moreover, are there differences between couples in which the service member separated from the military recently versus 5, 10, or 20 years ago? Longitudinal panel studies, such as the Deployment Cycle Study (Meadows et al., 2016), the Millennium Cohort Family Study (Crum-Cianflone et al., 2014), and the Military Family Life Project (2011 Military Family Life Project, 2012), may be able to provide these answers in time.

While understanding that funding resources are becoming scarcer and that longitudinal studies can be costly in terms of time and effort, we echo the call from previous researchers to involve both partners in longitudinal studies to better understand the dynamics and processes in which military couples function and adapt, particularly on a day-to-day basis (Meadows et al., 2016). At least two studies to our knowledge have answered this call. The Study for Employment Retention of Veterans (SERVe) focuses on improving employment retention, health, and well-being of (current and former) military service members who hold civilian jobs (for more information, see Hammer et al., 2017). In addition to longitudinal evaluation of the service members, SERVe also recruited and surveyed spouses and partners to examine matched dyads of military couples. In addition, an upcoming study on Military Employees Sleep and Health (Hammer et al., 2017) also evaluates the experiences of full-time NG/R and their partners.

Studies such as these provide in-depth understanding of the day-to-day life of military couples during and after their service.

Studies that Allow for Systematic Comparison

Another priority is to develop ways to conduct research that allows for systematic comparison of couples within and outside the military. The current state of the literature on military couples is scattered with regards to membership in different service branches and components, single versus repeated deployments and relocations, gender of the service member(s), and single versus dual military career couples. Past studies have often excluded NG/R because they were not expected to be deployed and separated from their families as frequently as they are now, which contribute to our lack of understanding of the differences between active duty and NG/R (Clever & Segal, 2013). In addition, the majority of studies examined in this chapter were on US military couples. It is important to note that different country and military policies can add another layer of complexity when examining the health and well-being of military families. The difficulty for systematic comparison lies in the feasibility of finding comparable samples of couples within the military to examine differences between branches and components, as well as comparable samples of military and civilian couples (e.g., of similar age, gender, relationship status, and background) to examine the effects of military service. For example, caregivers affiliated with a deployed NG member and with the Navy (regardless of component) reported poorer well-being compared to other branches and components (Lara-Cinisomo et al., 2012). Given that there are likely significant differences in stress, health, and well-being based on service branch, component, and life experiences, we need to tease apart variability within each of these dimensions (e.g., within a branch) and across dimensions (e.g., across branches; between military and civilian populations). Close collaboration between the military and academic researchers could be a first step in finding appropriate dimensions for systematic comparisons.

Expand the Composite Life Cycle Model

The Composite Life Cycle Model provides a holistic view of understanding service members and their families by encompassing three strands of life (unit, soldier, and family; Chiarelli, 2010). However, many service members in the NG/R may have an additional life cycle strand that influences their relationships, performance, and well-being. Since many NG/R hold a civilian job while serving in the military, we suggest that a civilian workplace strand is needed in addition to the current three strands when assessing NG/R. Similar to the solider strand, the civilian workplace strand would include professional and personal transitions in the civilian workplace, such as starting a new career, promotions, unemployment, and change in leadership. While the original Composite Life Cycle Model was intended to be viewed from a military standpoint, adding a workplace strand can highlight the importance of civilian employers' roles to learn and understand the challenges that their military employees face in their (multiple lines of) work and

family lives. This could help to increase appreciation of their efforts and skills, and to build an organizational culture that supports our military. The workplace strand is also likely to continue longer throughout life after the service member separates from the military. In this case, be it for active duty personnel or NG/R, the process of reintegration can be highlighted as part of the model (e.g., from obtaining a new job to retirement).

Move Toward an Integrative Understanding of Soldier, Family, and Military Lives

Finally, researchers have indicated the importance of conducting longitudinal and integrated research (Blaisure et al., 2015; Chiarelli, 2010; Gade, 1991; Karney & Crown, 2011; MacLean & Elder, 2007). Specifically, researchers have suggested that future work should "explore ways in which the data can be collected from multiple family members at the same time" (Meadows et al., 2016, p. xxvii), and the military has recommended that research should "identify and track support and stressors related to *all* strands of the life cycle model" (Chiarelli, 2010, p. 109). We propose that examining social support systems is an area prime for integrated research. Social support and strain occurs across all strands, from supervisor and co-worker support in the unit and workplace strands to partner, family, and friend support in the family (or more broadly, personal life) strand.

One method that could be used to determine and assess the various support systems is based on the Convoy Model of Social Relations (Antonucci, 2001; Kahn & Antonucci, 1980; Sherman, Wan, & Antonucci, 2016). Intended as a multidisciplinary model based on sociological and psychological theories and traditionally used to examine civilian populations, the convoy model can easily be applied to study the military. A convoy is defined as a group of vehicles or ships that travel together and offer protection. In this model, a "convoy" refers to a group of people, or social network, which surrounds and protects an individual as they travel through life. The model takes into account personal characteristics (e.g., age, gender, socioeconomic status, and race) and situational characteristics (e.g., work and family roles and living environment) that may influence the amount and type of social support received.

The main goal of the Convoy Model of Social Relations is to examine the nature of these dynamic close relationships and their influence on health and well-being over the life course. An individual can be close to different people at different points in life. For example, parents and teachers may play more important roles in childhood, friends in adolescence, and partners, children, colleagues, and comrades in adulthood. First, researchers need to measure the convoy, which can be assessed with the hierarchical mapping technique (Fig. 1). Using this technique, researchers can ask individuals (e.g., service members and partners) to look at a diagram with three concentric circles imagining that the individual is at the center. Each of the three circles represents different levels of closeness or importance to the individual. The individual nominates the person(s) to whom they feel closest (or people who are so important that it is hard to imagine work/personal life without them) to the smallest circle, then nominates person(s) who are not as close but still very important to their life in the outer circles.

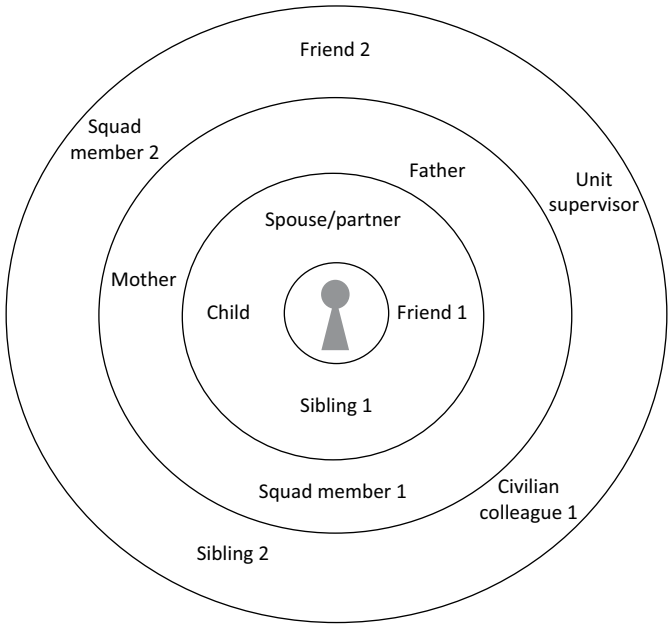

Fig. 1. Hierarchical Mapping Technique as an Integrative Method to Identify and Track Support Networks across Unit, Family/Personal Life, and Workplace Strands. *Source:* Adapted from Antonucci (1986).

The resulting diagram graphically depicts the individual's convoy and allows the individual to nominate as many people from as many strands. Studies have typically allowed up to 20 total nominations to capture the complexity and breadth of the convoy. Not only does this method allow researchers to collect data about social networks across strands, it also avoids any bias or misconceptions about close network membership as opposed to having researchers define the relationships that should be considered as important. As a result, this method provides a person-centered view of their support system. With this information, researchers can assess social convoy structure (e.g., how many people are in the social network and how far away do they live), function (e.g., aid and affect), and quality (e.g., positive support, negative strain, and reliability). Note that service members and partners can have no or few nominations in a particular strand, and they can feel more support or strain from one relationship or one strand. In addition, both structure and quality of a social convoy can change over time. By assessing the social convoy of service members and their partners across branches and components at regular intervals, we can have greater understanding of the various support systems that may be beneficial to military families. This understanding could lead to the identification of target points of intervention, particularly in strands where more support is needed that may impact performance and well-being in other strands of life.

CONCLUSION

Military service is life defining for service members and their close friends and family. Throughout a service member's life, the spouse or partner is often the primary support with the most consistent presence, and therefore the understanding of military couples is of utmost importance. In this chapter, we focused on the various definitions, experiences, and challenges of the armed services and specifically of military couples. Using a life course perspective, this chapter explored factors related to the transitions of periodic relocation and deployment that have significant impact on military couples. We hope that this chapter will help to expand research on military couples and direct research toward a more integrative understanding of the life cycle of service members and their support systems from different strands of life.

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REFERENCES

Allen, E. S., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2010). Hitting home: Relationships between recent deployment, posttraumatic stress symptoms, and marital functioning for Army couples. *Journal of Family Psychology*, *24*(3), 280.

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.

Antonucci, T. C. (2001). Social relations: An examination of social networks, social support, and sense of control. In J. E. Birren & K. W. Schaie (Eds.), *Handbook of the psychology of aging* (pp. 427-453). San Diego, CA, US: Academic Press.

Antonucci, T. C. (1986). Hierarchical mapping technique. Generations, *Journal of the American Society on Aging, 10*(4), 10–12.

Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a day's work: Boundaries and micro role transitions. *Academy of Management Review*, *25*(3), 472–491.

Bakker, A. B., & Demerouti, E. (2013). The spillover–crossover model. In J. Grzywacz, & E. Demerouti (Eds.), *New frontiers in work and family research* (pp. 53–69), Hove: Psychology Press.

Barnett, R. C., & Hyde, J. S. (2001). Women, men, work, and family: An expansionist theory. *American psychologist, 56*(10), 781.

Blanchard, V. L., Hawkins, A. J., Baldwin, S. A., & Fawcett, E. B. (2009). Investigating the effects of marriage and relationship education on couples' communication skills: A meta-analytic study. *Journal of Family Psychology, 23*(2), 203–214. http://dx.doi.org/10.1037/a0015211

Black, W. G., Jr. (1993). Military-induced family separation: A stress reduction intervention. *Social Work*, *38*(3), 273–280.

Blaisure, K. R., Saathoff-Wells, T., Pereira, A., Wadsworth, S. M., & Dombro, A. L. (2015). *Serving military families*: *Theories, research, and application*. New York, NY: Routledge.

Blakely, G., Hennessy, C., Chung, M. C., & Skirton, H. (2012). A systematic review of the impact of foreign postings on accompanying spouses of military personnel. *Nursing & Health Sciences*, *14*(1), 121–132.

Booth, B., & Lederer, S. (2012). Military families in an era of persistent conflict. In J. H. Laurence & M. D. Matthews (Eds.), *The Oxford handbook of military psychology* (pp. 365–380). New York, NY: Oxford University Press.

Booth, B., Segal, M. W., Bell, D. B., Martin, J. A., Ender, M. G., Rohall, D. E., & Nelson, J. (2007). *What we know about army families: 2007 update*. Arlington, VA: Family and Morale, Welfare and Recreation Command.

Bowen, G. L. (1987). Wives' employment status and marital adjustment in military families. *Psychological Reports*, *61*(2), 467–474.

Bowen, G. L., Orthner, D. K., Zimmerman, L. I., & Meehan, T. (1992). *Family patterns and adaptation in the US army*. Research Triangle Park, NC: Research Triangle Institute.

Brett, J. M. (1982). Job transfer and well-being. *Journal of Applied Psychology*, *67*(4), 450.

Burland, D., Lundquist, J. H. (2013). The best years of our lives: Military service and family relationships --A life-course perspective. In Wilmoth, J. M., London, A. S. (Eds.), *Life-course perspectives on military service* (pp. 165–184). New York, NY: Routledge.

Burrell, L. M. (2006). Moving military families: The impact of relocation on family well-being, employment, and commitment to the military. In C. A. Castro, A. B. Adler, & T. W. Britt (Eds.), *Military life: The psychology of serving in peace and combat: The military family* (Vol. 3, pp. 39–63). Westport, CT: Praeger Security International.

Burrell, L. M., Adams, G. A., Durand, D. B., & Castro, C. A. (2006). The impact of military lifestyle demands on well-being, army, and family outcomes. *Armed Forces & Society*, *33*(1), 43–58.

Castaneda, L. W., & Harell, M. C. (2008). Military spouse employment: A grounded theory approach to experiences and perceptions. *Armed Forces & Society*, *34*(3), 389–412.

Chiarelli, P. W. (2010). *Army health promotion, risk reduction, suicide prevention report 2010*. Washington, DC: Department of Defense.

Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations*, *53*(6), 747–770.

Clark, M. G., Jordan, J. D., & Clark, K. L. (2013). Motivating military families to thrive. *Family and Consumer Sciences Research Journal*, *42*(2), 110–123.

Clever, M., & Segal, D. R. (2013). The demographics of military children and families. *The Future of Children*, *23*(2), 13–39.

Cooke, T. J., & Speirs, K. (2005). Migration and employment among the civilian spouses of military personnel. *Social Science Quarterly*, *86*(2), 343–355.

Copeland, A. P., & Norell, S. K. (2002). Spousal adjustment on international assignments: The role of social support. *International Journal of Intercultural Relations*, *26*(3), 255–272.

Crum-Cianflone, N. F., Fairbank, J. A., Marmar, C. R., & Schlenger, W. (2014). The millennium cohort family study: A prospective evaluation of the health and well-being of military service members and their families. *International Journal of Methods in Psychiatric Research*, *23*(3), 320–330.

Cunradi, C. B., Caetano, R., & Schafer, J. (2002). Alcohol-related problems, drug use, and male intimate partner violence severity among US couples. *Alcoholism: Clinical and Experimental Research*, *26*(4), 493–500.

De Burgh, H. T., White, C. J., Fear, N. T., & Iversen, A. C. (2011). The impact of deployment to Iraq or Afghanistan on partners and wives of military personnel. *International Review of Psychiatry*, *23*(2), 192–200.

DeVoe, E. R., & Ross, A. (2012). The parenting cycle of deployment. *Military Medicine*, *177*(2), 184–190.

Dimiceli, E. E., Steinhardt, M. A., & Smith, S. E. (2010). Stressful experiences, coping strategies, and predictors of health-related outcomes among wives of deployed military servicemen. *Armed Forces & Society, 36*(2), 351–373.

Drummet, A. R., Coleman, M., & Cable, S. (2003). Military families under stress: Implications for family life education. *Family Relations*, *52*(3), 279–287.

Dunkel Schetter, C. (2017). Moving research on health and close relationships forward – A challenge and an obligation: Introduction to the special issue. *American Psychologist*, *72*(6), 511–516.

Elbogen, E. B., Johnson, C. S. C., Wagner, H. R., Newton, V. M., & Beckham, J. C. (2012). Financial well-being and post-deployment adjustment among Iraq and Afghanistan war veterans. *Military Medicine*, *177*(6), 669.

Elder, G. H., Jr, Gimbel, C., & Ivie, R. (1991). Turning points in life: The case of military service and war. *Military Psychology*, *3*(4), 215.

Erbes, C. R., Kramer, M., Arbisi, P. A., DeGarmo, D., & Polusny, M. A. (2017). Characterizing spouse/partner depression and alcohol problems over the course of military deployment. *Journal of Consulting and Clinical Psychology*, *85*(4), 297.

Fish, T. L., Harrington, D., Bellin, M. H., & Shaw, T. V. (2014). The effect of deployment, distress, and perceived social support on army spouses' weight status. *US Army Medical Department Journal* (October–December), 87–95.

Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work–family interface. *Journal of vocational behavior, 50*(2), 145–167.

Gade, P. A. (1991). Military service and the life-course perspective: A turning point for military personnel research. *Military Psychology*, *3*(4), 187.

Gates, G. J. (2010). *Lesbian, gay, and bisexual men and women in the US military: Updated estimates*. Retrieved from the Williams Institute website http://www3.law.ucla.edu/williamsinstitute/pdf/GLBmilitary Update.pdf

George, L. K. (2003). Life course research: Achievements and potential. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 671–680). New York: Kluwer Academic/Plenum Publishers.

Gottman, J. M., Gottman, J. S., & Atkins, C. L. (2011). The comprehensive soldier fitness program: Family skills component. *American Psychologist*, *66*(1), 52.

Grandey, A. A., & Cropanzano, R. (1999). The conservation of resources model applied to work–family conflict and strain. *Journal of vocational behavior, 54*(2), 350–370.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of management review, 10*(1), 76–88.

Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of management review, 31*(1), 72–92.

Griffith, J. D., Stewart, L. S., & Cato, E. D. (1988). *Annual survey of army families: A report on army spouses and families in 1987*. Alexandria, VA: US Army Community and Family Support Center.

Hall, K. C., Harrell, M. C., Bicksler, B. A., Stewart, R., & Fisher, M. P. (2014). *Veteran employment*. Santa Monica, CA: Rand Corporation.

Hammer, L. B., Wan, W. H., Brockwood, K. J., Mohr, C. D., & Carlson, K. F. (2017). Military, work, and health characteristics of separated and active service members from the study for employment retention of veterans (SERVe). *Military Psychology*, *29*(6), 491–512. Retrieved from http://dx.doi.org/10.1037/mil0000196

Henry, R., & Robichaux, R. J. (1999). Understanding life in the army: Military life from a service member and family member perspective. In J. G. Daley (Ed.). *Social work practice in the military* (pp. 217–233). New York, NY: The Haworth Press.

Heyman, R. E., & Neidig, P. H. (1999). A comparison of spousal aggression prevalence rates in US Army and civilian representative samples. *Journal of Consulting and Clinical Psychology*, *67*(2), 239.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist, 44*(3), 513.

Holt-Lunstad, J., Robles, T. F., & Sbarra, D. A. (2017). Advancing social connection as a public health priority in the United States. *American Psychologist*, *72*(6), 517.

Jervis, S. (2009). *Military wives and relocation*: *A psycho-social perspective*. Doctoral Dissertation, University of West of England, Bristol, UK.

Kahn, R.L., & Antonucci, T.C. (1980). Convoys over the life course: Attachment, roles, and social support. In P.B. Baltes, & O. Brim (Eds.), *Life-span development and behavior* (Vol. 3).

New York: Academic Press. Reprinted 1989 in Joep Munnichs & Gwenyth Uildris (Eds.), Psychogerontologie (pp. 81–102). Van Loghum Slaterus.

Karney, B. R., & Crown, J. S. (2007). *Families under stress: An assessment of data, theory, and research on marriage and divorce in the military* (Vol. 599). Santa Monica, CA: Rand Corporation.

Karney, B. R., & Crown, J. S. (2011). Does deployment keep military marriages together or break them apart? Evidence from Afghanistan and Iraq. In MacDermid Wadsworth, S., Riggs, D. (Eds.),*Risk and resilience in US military families* (pp. 23–45). New York, NY: Springer.

Keenan, B. (2011). *Diplomatic baggage: The adventures of a trailing spouse*. London: Hachette.

Kleykamp, M. (2013). Unemployment, earnings and enrollment among post 9/11 veterans. *Social Science Research*, *42*(3), 836–851.

Lakhani, H., Thomas, S., & Gilroy, C. (1985). Army european tour extension: a multivariate approach. *Journal of Behavioral Economics, 14*(2), 15–41.

Lara-Cinisomo, S., Chandra, A., Burns, R. M., Jaycox, L. H., Tanielian, T., Ruder, T., & Han, B. (2012). A mixed-method approach to understanding the experiences of non-deployed military caregivers. *Maternal and Child Health Journal*, *16*(2), 374–384.

Laser, J. A., & Stephens, P. M. (2011). Working with military families through deployment and beyond. *Clinical Social Work Journal*, *39*(1), 28–38.

Lavee, Y., McCubbin, H. I., & Patterson, J. M. (1985). The double ABCX model of family stress and adaptation: An empirical test by analysis of structural equations with latent variables. *Journal of Marriage and the Family*, *47*(4), 811–825.

Logan, K. V. (1987, February). The emotional cycle of deployment. *US Naval Institute Proceedings 113*(1), 43–47.

Lufkin, K. P. (2017). An exploratory study of marital and quality of life ratings among male spouses of military members. *Contemporary Family Therapy*, *39*(3), 162–171.

Lundquist, J., & Smith, H. L. (2005). Family formation among women in the US military: Evidence from the NLSY. *Journal of Marriage and Family*, *67*(1), 1–13.

Lundquist, J., & Xu, Z. (2014). Re-institutionalizing families: Life course policy and marriage in the military. *Journal of Marriage and Family*, *76*(5), 1063–1081.

MacDermid Wadsworth, S. M. (2010). Family risk and resilience in the context of war and terrorism. *Journal of Marriage and Family*, *72*(3), 537–556.

MacLean, A., & Elder Jr, G. H. (2007). Military service in the life course. *Annual Review of Sociology*, *33,* 175–196.

Mansfield, A. J., Kaufman, J. S., Marshall, S. W., Gaynes, B. N., Morrissey, J. P., & Engel, C. C. (2010). Deployment and the use of mental health services among US Army wives. *New England Journal of Medicine*, *362*(2), 101–109.

Marshall, A. D., Panuzio, J., & Taft, C. T. (2005). Intimate partner violence among military veterans and active duty servicemen. *Clinical Psychology Review*, *25*(7), 862–876.

McNulty, A. F. (2003). Does deployment impact the health care use of military families stationed in Okinawa, Japan? *Military Medicine*, *168*(6), 465.

Meadows, S. O., Griffin, B. A., Karney, B. R., & Pollak, J. (2016). Employment gaps between military spouses and matched civilians. *Armed Forces & Society*, *42*(3), 542–561.

Meadows, S. O., Tanielian, T., Karney, B. R., Ayer, L., Chandra, A., Friedman, E. M., ... & Troxel, W. M. (2016). The deployment life study: Longitudinal analysis of military families across the deployment cycle (No. RR1388). RAND Arroyo Center Santa Monica United States.

2010 Military Family Life Project. (2011). *Tabulations of responses*. DMDC Report No. 2010-029. Defense Manpower Data Center, Washington, DC.

2011 Military Family Life Project. (2012). *Tabulations of responses*. DMDC Report No. 2012-027. Defense Manpower Data Center, Washington, DC.

Modell, J., & Haggerty, T. (1991). The social impact of war. *Annual Review of Sociology*, *17*(1), 205–224.

Monson, C. M., Taft, C. T., & Fredman, S. J. (2009). Military-related PTSD and intimate relationships: From description to theory-driven research and intervention development. *Clinical Psychology review*, *29*(8), 707–714.

Nagl, J., & Sharp, T. (2010). *An indispensable force: Investing in America's National Guard and Reserves*. Washington, DC: Center for a New American Security.

Negrusa, S., Negrusa, B., & Hosek, J. (2014). Gone to war: Have deployments increased divorces? *Journal of Population Economics*, *27*(2), 473–496.

Norwood, A. E., Fullerton, C. S., & Hagen, K. P. (1996). Those left behind: Military families. In R. J. Ursano & A. E. Norwood (Eds.), *Emotional aftermath of the Persian Gulf War: Veterans, families, communities, and nations* (pp. 163–196). Arlington, VA, US: American Psychiatric Association.

Office of the Deputy Assistant Secretary of Defense [DASD]. (2014). 2014 demographics: Profile of the military community. Retrieved from http://download.militaryonesource.mil/12038/MOS/Reports/2014-Demographics-Report.pdf.

Parcell, E. S., & Maguire, K. C. (2014). Turning points and trajectories in military deployment. *Journal of Family Communication*, *14*(2), 129–148.

Pincus, S. H., House, R., Christenson, J., & Adler, L. E. (2001). The emotional cycle of deployment: A military family perspective. *US Army Medical Department Journal*, *4*(5), 6.

Pittman, J. F., & Bowen, G. L. (1994). Adolescents on the move: Adjustment to family relocation. *Youth & Society*, *26*(1), 69–91.

Puskar, K. R., Wilson, G., & Moonis, L. J. (1990). The effect of group support on relocated corporate and military wives: A secondary analysis. *Minerva*, *8*(2), 36.

Renshaw, K. D., Rodrigues, C. S., & Jones, D. H. (2008). Psychological symptoms and marital satisfaction in spouses of Operation Iraqi Freedom veterans: Relationships with spouses' perceptions of veterans' experiences and symptoms. *Journal of Family Psychology*, *22*(4), 586.

Segal, M. W. (1986). The military and the family as greedy institutions. *Armed Forces & Society*, *13*(1), 9–38.

Sherman, C. W., Wan, W. H., & Antonucci, T. C. (2016). Social convoy model. In S.K. Whitbourne (Ed.), *The Encyclopedia of Adulthood and Aging*. Hoboken, New Jersey: Wiley-Blackwell.

Skomorovsky, A. (2014). Deployment stress and well-being among military spouses: The role of social support. *Military Psychology*, *26*, 44–54.

Southwell, K. H., & MacDermid Wadsworth, S. M. (2016). The many faces of military families: Unique features of the lives of female service members. *Military Medicine*, *181*(1S), 70–79.

Trougakos, J. P., Bull, R. A., Green, S. G., MacDermid, S. M., & Weiss, H. M. (2007). Influences on job search self-efficacy of spouses of enlisted military personnel. *Human Performance*, *20*(4), 391–413.

Werber, L., Harrell, M. C., Varda, D. M., Hall, K. C., & Beckett, M. K. (2009). *Deployment experiences of guard and reserve families: Implications for support and retention*. Santa Monica, CA: Rand Corporation.

Westman, M. (2001). Stress and strain crossover. *Human Relations*, *54*(6), 717–751.

Westman, M. (2005). The crossover of work–family conflict from one spouse to the other. *Journal of Applied Social Psychology*, *35*(9), 1936–1957.

Westman, M., & Etzion, D. (1995). Crossover of stress, strain and resources from one spouse to another. *Journal of Organizational Behavior*, *16*(2), 169–181.

Westman, M., & Vinokur, A. D. (1998). Unraveling the relationship of distress levels within couples: Common stressors, empathic reactions, or crossover via social interaction? *Human Relations*, *51*(2), 137–156.

Westman, M., Vinokur, A. D., Hamilton, V. L., & Roziner, I. (2004). Crossover of marital dissatisfaction during military downsizing among Russian army officers and their spouses. *Journal of Applied Psychology*, *89*(5), 769.