

Chapter 7

Parental Deployment and Military Children: A Century of Research



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Media images of joyful children rushing to greet uniformed mothers and fathers returning from wartime deployments are heartwarming, but also raise questions about how children's lives are affected by such separations. Between 2001 and 2018, over two million children experienced a military parental separation (Wenger et al., 2018). This chapter focuses on the consequences of temporary parental separation for children in US military families, arguably the most high-profile element of military experience. Although beyond our scope, we recognize other important aspects of military life affecting children, such as frequent relocations, chronic parental work stress, and risk of parental injury or death (NASEM, 2019). Furthermore, other children around the world face threat of war-related injury or death themselves (MacDermid Wadsworth, 2010).

Among US military personnel, 38.6% have children aged 22 years or younger ($n = 816,083$; U.S. Department of Defense (DoD), 2020). Approximately 700,000 service member parents are married and 125,000 are divorced, annulled, widowed, or never married. Among their 1,650,464 children, the single largest group is age birth to 5 years ($n = 624,042$), followed by 6–11 years ($n = 529,560$), 12–18 years (389,729), and 19–22 years ($n = 107,133$). Because 25% of military personnel serve 3 years or less (Marrone, 2020), the number of children affected by deployments can grow rapidly. In recent decades, there has been considerable interest in how

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deployment impacts US military children, and we focus here on summarizing information on this topic.

We first place current knowledge into historical context by tracing the relationship between the military and families throughout the US history. We then review what was learned about parental separation during conflicts in the twentieth century, followed by what has been learned since 2001. Despite the accumulated evidence, significant questions remain, which are described in the next section, followed by the introduction of a new study designed to address some of these gaps in knowledge. Finally, we consider implications for prevention and intervention.

History of Military Family Programs and Policies

For much of America's history, military leaders considered family life irrelevant or antithetical to military service, especially in the enlisted ranks, even though many members had families who served alongside them. For example, *camp followers* who accompanied soldiers during the American Revolution and to frontier forts in the American west were compensated as military cooks, seamstresses, nurses, and sometimes soldiers (Albano, 1994).

Until 1942, regulations prohibited men with wives or children from enlisting during peacetime, although they could be drafted. Exceptions were made though, and greater latitude was given to officers (Albano, 1994). Financial support had been provided to widows and children of wounded or killed *veterans* since the 1600s (Aaronson, 1942), but financial support for families *during* military service began only in 1898 (Wickham, 1983). World War II was a turning point because heads of households were drafted, requiring provision of support for families left at home, a practice that then continued beyond the war (Albano, 1994).

Following the Korean War in the 1950s, it became clear that service members' family concerns reduced military retention (Little, 1971). At that time, 70% of service members were unmarried, but by 1960 spouses and children outnumbered service members in the military population (Albano, 1994). Spurred by this trend, a military family support infrastructure began to develop, beginning with Army Community Service centers in 1965. The other service branches followed suit 15 years later. Childcare programs also began to appear, beginning with informal preschool and family childcare arrangements but eventually becoming the largest employer-provided child development system in the USA (Kamarck, 2020).

US military conscription ended in 1973 during the Vietnam conflict. In the new all-volunteer force, personnel served longer and the number of those with families rose (Albano, 1994). Echoing general trends, both service members and families became more diverse, with increased labor force participation among military wives and rising divorce rates contributing to substantial increases in single-parent families (Albano, 1994). Regulations preventing service by married women and mothers ended in 1975. Subsequently, the proportion of female personnel rose from 2.5% in 1973 to 11% in 1991 (Norwood & Ursano, 1994), and the number of dual-military families increased as well.

In 1983, the Chief of Staff of the Army announced a philosophy and strategic plan regarding families for the first time:

A partnership exists between the Army and Army Families. The Army's unique missions, concept of service and lifestyle of its members—all affect the nature of this partnership. Towards the goal of building a strong partnership, the Army remains committed to assuring adequate support to families in order to promote wellness; to develop a sense of community; and to strengthen the mutually reinforcing bonds between the Army and its families (Wickham, 1983, p. 3).

Other significant actions followed: In the 1980s, the Air Force conducted its first large-scale *Families in Blue* survey (Albano, 1994), and the Navy created a Family Research Center. The Army launched the annual Army Family Action Plan (Albano, 1994), and in 1986 the Office of the Secretary of Defense created an office of Family Policy (Brown, 1993).

The first Gulf War in 1990–1991, though brief with 100 h of ground combat (Figley, 1993), generated new lessons about war and family life. Subsequently, the pace of military operations continued its 20-year rise: In addition to significant peacekeeping in Bosnia, operations occurred in more than 20 other countries during the decade of 1990 (Congressional Research Service, 2020). Base closures and downsizing trimmed the force by 30%, expanding the role of the reserve component (i.e., the National Guard and the Reserves), and propelling more active-duty families to live away from military installations. Department of Defense (DoD) philosophy regarding families continued to evolve. In 2002 a new social compact was announced, which shifted family programs from being viewed as entitlements earned by service members to investments leading to the accomplishment of military missions, as indicated by a key word in the title (boldface added): “The New Social Compact: A **Reciprocal** Partnership between the Department of Defense, Service Members and their families” (Deputy Assistant Secretary of Defense for Military Community and Family Policy, 2002).

Over the past 300 years, features of each major conflict and evolving demographic trends provided a backdrop for changing stances in military policies and practices regarding families—from neglect to partnership, from informal to formal, and from ad hoc to planned (Albano, 1994). As the next section will show, after social scientists entered the scene in the twentieth century, their concerns and approaches also evolved with the times, the volume of research surging and then receding with each major conflict.

Parental Separation and Military Children: Research Prior to 2000

Studies of parental separation and the impact on children in military families first appeared during World War II, investigating *paternal deprivation* as a function of deployments, as well as the impact of exposures to bombings and evacuations in Britain. Multiple researchers wanted to understand why children's reactions were so

diverse and investigated psychological disruption among children as a function of the occurrence, duration, or frequency of separations from military family members. For example, outcomes among 49 adolescents (42 male) with siblings or fathers who had joined the military to serve in WWII and had been referred to a clinic or adjudicated as delinquent by a court were studied (Gardner & Spencer, 1944). No children were referred for psychological care in connection with the enlistment, but 12 displayed mild short-lived anxiety. Boys in the court-referred group, however, were much more likely to display new problems, more than half committing their first offense after the enlistment.

Researchers were also concerned about children's psychosexual development, exploring whether paternal deprivation interfered with sex identification processes and disrupted children's later cognitive development (Carlsmith, 1964). For example, standardized test scores for several hundred high school seniors and Harvard freshmen in 1963–1964 were compared on the basis of exposure to fathers' deployments between 1940 and 1945. Boys and girls who experienced earlier and/or longer separations tended to have lower math scores overall and in relation to verbal scores, a *feminized* pattern of aptitudes that prompted concerns about threats to boys' analytical abilities. Perhaps reflecting the times, Milton (1957) commented, "... this type of problem solving is not appropriate to the female sex-role" (p. 211).

In these early studies, research samples were usually small and associated with clinics, courts, or other institutions (e.g., Bach, 1946). Two notable exceptions were a study of 8000 schoolchildren in Bristol, England, which gathered reports from teachers distributed across the city of children's psychological and behavioral symptoms following air raids (Dunsdon, 1941), and a report on the status of 16,000 British children evacuated from bombing areas (Alcock, 1945). Taken together, these studies showed that direct exposure to air raids was associated with more severe psychological consequences for children than the parental separations caused by the evacuations.

The most widely cited study of this period, in contrast to earlier approaches, focused on the adjustment of families rather than children (Hill, 1949). This longitudinal study of 135 randomly selected Iowa families as they reunited following wartime deployments focused on stress processes in families as systems. A key recognition was that reintegration was challenging, and that diverse patterns of adjustment appeared to be linked to family adjustment during the separation. Families who *closed ranks* too much during separation had failed to leave sufficient space for fathers to reintegrate into the family (McCubbin & Dahl, 1976).

Although most studies focused on negative outcomes, multiple researchers commented on the resilience of military children. For example, Bodman (1941) commented, "The most striking finding of this survey is the extraordinary toughness of the child, and his flexibility in adapting to potentially threatening situations" (p. 488). The earlier expectation that deployment would constitute a family crisis was not borne out in many families (Hill, 1949).

Research next surged in association with the Vietnam conflict, a key feature of which was the large number of service members held as prisoners of war (POW) or missing in action (MIA); as of August 2020, more than 81,900 were still classified

MIA. Studies of father absences and children's psychopathology continued; few if any mothers were allowed to serve in the military at this time. For example, 1060 military children referred to a military clinic between 1967 and 1975 were studied by Grant (1988). Compared to those who received diagnoses, healthy children had fewer separations, although this was only a trend-level difference.

Influenced by rapidly changing roles of women in the larger society, theoretical approaches expanded to include social learning theory and role theory (McCubbin et al., 1975). Beyond simply paternal deprivation, researchers wondered whether the *deviance* of mothers' expanded roles in military families during separations would disrupt children's behavior and quantitative abilities, or enhance their emotional adjustment and verbal ability (e.g., Hillenbrand, 1976). For instance, in a study of 53 children before and after a deployment, the prediction was that they would do best when mothers scored high on androgyny (Nice, 1978). On average, children displayed significant improvements in 11 of 14 personality indicators, which, unexpectedly, were not related to mothers' levels of androgyny.

The diversity of children's reactions to fathers' deployments prompted more attention to the circumstances of separations. Multiple studies found that boys were more likely than girls to have difficulty. More specifically, boys with older sisters tended to display increased "aggression and dependency" (Hillenbrand, 1976), while firstborn boys gained quantitative ability. In addition to birth order and sex, separations earlier in life more negatively impacted cognitive, psychological, and socioemotional functioning. Another important circumstance was whether deployments were routine vs. catastrophic, such as those of POW or MIA families (Jensen et al., 1986). Many POW families found it very difficult to reintegrate following their reunion, and the persistent ambiguity they experienced affected children as much as 20 years later (Campbell & Demi, 2000).

Finally, mothers' responses to deployments emerged as perhaps the single most consistent predictor of children's outcomes. Separation interacted with maternal pathology to produce elevated problems in children, but only in families where children had experienced prior emotional disturbances (Pedersen, 1966). "As parents go, so go the children" was the prevailing notion during this period (Hunter & Hickman, 1981, p. 1).

Soon after the Vietnam War, the notion of a "military family syndrome" was proposed, and it launched more than a decade of debate (LaGrone, 1978). Based on clinic records for 792 military children, LaGrone concluded that behavior disorders were elevated relative to the civilian population, which he attributed to overly authoritarian military discipline that compromised service members' parenting, as well as frequent relocations and separations. Military family syndrome was vigorously countered by Jensen, an Army physician and later a leader at NIH, who pointed to multiple studies showing that military children fared as well or better than children in the civilian community (Jensen et al., 1991). For example, the first large-scale study of military youth (Orthner, 1987), which compared adolescent children of Air Force members with civilian youth attending the same schools, found "no consistent differences that would support the notion that military youth have more difficulties than their civilian peers during adolescence" (Leitzel & Zaler,

1999, p. 184). Jensen and others highlighted the benefits of military life for children, such as steady family income and free medical care (Jensen et al., 1986). In 1992, Werkman and Jensen formally debated the resolution, “Military family life is hazardous to the mental health of children” (Werkman & Jensen, 1992, p. 984). Then, as now, no consensus was reached. Then, as now, large-scale systematic comparisons between military and civilian children were rare, and none matched children on characteristics such as employment, income, or parental education which could introduce bias favoring military children.

During the 1980s, interest in father absence continued, and studies using community (vs. clinic-based) samples found that children recently exposed to paternal separation displayed higher levels of psychological symptoms and behavior problems (Hunter & Hickman, 1981; Jensen et al., 1989). Differences narrowed when mothers’ own symptoms were controlled, but children’s reports (a methodological innovation) of internalizing symptoms such as depression or anxiety remained correlated with father absence (Jensen et al., 1989). A theoretical innovation during the period was the publication by military clinicians of a model for the *Emotional Cycle of Deployment* based on the experiences of Navy wives (Logan, 1987).

The 1990s featured the first Gulf War (Operation Desert Storm), peacekeeping deployments in Bosnia, as well as numerous smaller operations (CRS, 2020). Although brief, the Gulf War had extensive impacts on families. A notable difference from prior conflicts was real-time media coverage that allowed families to watch live battles from their living rooms (Figley, 1993). This led to scholarly explorations of secondary traumatization of family members who experienced events only indirectly via media or accounts or reactions of service members (Figley, 1993). Family stress perspectives and attachment theory were now applied not just to parent-child relationships but also to relationships between adults throughout deployment (Cafferty et al., 1994; Vormbrock, 1993). Outcomes expanded to include greater attention to overall family functioning.

Methodologically, most studies were still retrospective and cross-sectional with notable exceptions (e.g., Kelley, 1994). Samples tended to be larger, community rather than clinic based, and some were selected using probability methods (e.g., Jensen et al., 1995). At least a few studies included multiple children per family and data about siblings (e.g., Rosen et al., 1993). A few studies used informants beyond parents such as teachers and children themselves (e.g., Jensen et al., 1995). This was particularly important for problems not easily observed by parents (e.g., internalizing problems), or problems that parents might unintentionally over- or underreport due to their own distress. Studies continued to find elevated levels of distress in some children and functional difficulties in some families associated with deployment, but generally at subclinical levels (Pierce et al., 1998; Rosen et al., 1993). A large probability sample of 6000 military adolescents revealed few meaningful differences in the prevalence of these problems compared with the general population (Leitzel & Zaler, 1999).

Research during this period also reflected changing demographics, giving attention to single-parent and dual-military families (i.e., both parents serving; Norwood & Ursano, 1994). For the first time, the impact of mothers’ deployments was

studied, drawing attention to aspects of daily life especially relevant to women such as child care (Pierce et al., 1998). The first comparison of the consequences of mothers' and fathers' deployments for children's psychosocial functioning found no meaningful differences (Applewhite & Mays, 1996).

Despite the brevity of the Gulf War, post-deployment reunion and reintegration were identified as significant challenges for families, spurring refinement of conceptual models and family systems approaches. Mateczun, who was Principal Director for Clinical Services in the military health system, described return, readjustment, and reintegration as the "three Rs of family reunion" (Mateczun & Holmes, 1996). Later, a revised and refined version of the Emotional Cycle of Deployment model, based on families' experiences during the Bosnian conflict, extended Logan's earlier focus on wives to entire family systems (Pincus et al., 2001).

By the end of the twentieth century, what had been learned? From the earliest studies, it had become clear that children's and families' responses to military-induced separations were diverse. Distress among children was common, but clinically significant disorders much less so. The period of reintegration was unexpectedly challenging though. The consequences of separations were conditioned by multiple factors, including the nature and context of the deployments. Mothers' reactions to separations were key for children. Boys and younger children appeared to be more vulnerable, at least according to parents' reports. However ultimately, military children displayed substantial resilience.

Limitations of studies conducted to this point included heavy reliance on retrospective data, parents' reports (with some exceptions), and mostly convenience or clinical samples that lacked well-matched comparison groups. Despite frequent displays of resilience by children and families, most studies focused on assessing psychopathology and behavior problems. Little was known about the experiences of fathers, whether at home or deployed, or the experiences of mothers who served in the military, and their implications for children. Although systems approaches had become common, relatively few had gathered reports from multiple family members on multiple occasions or delved into daily life. Nothing at all was known about the experiences of family members beyond the nuclear family. Almost all studies focused only on active-duty families. Finally, although it had been recognized that separations varied in important ways, nuanced attention to the content of parental deployments and the implications for children remained limited (Jensen, 1999).

Parental Deployment and Military Children: Research Since 2000

Although research on the implications of military deployments for the individual service members and their families has been the focus of scholarly inquiry for decades, the past 20 years have seen an increased emphasis on how service members' deployments are related to the health and functioning of their non-deployed

partners/spouses and children (Cunitz et al., 2019). This emphasis is timely as it coincides with the longest ongoing military conflict (OIF/OND/OEF) in the history of the USA (Torreon & Plagakis, 2020). Given that recent military deployments have been more frequent and longer in duration than in the past (Tanielian & Jaycox, 2008), the need to understand the implications of parental military deployments for children is critical.

Though sometimes treated as singular static events, military deployments represent a series of transitions that military members and their families must traverse. For example, the deployment cycle begins with predeployment, a period when military members and their families are notified that the military member will deploy. Although studies of predeployment are limited, this period is described as a time of stress and preparation for families (DeVoe & Ross, 2012; Pincus et al., 2001). The deployment phase of the cycle, during which military members are away from their families, has been described as a stressful time in which at-home family members must adjust to separation from a spouse or parent, cope with their own feelings, and navigate changing roles and demands (DeVoe & Ross, 2012; Paley et al., 2013). This phase of the deployment cycle has been the focus of most research on military families, although most studies are limited to cross-sectional explorations and/or retrospective reports. Finally, the deployment cycle ends with reunion and reintegration, when military members return from their tour and reintegrate into their normal life. As is the case with predeployment, less research has focused on family processes and functioning during reintegration; however, some recent studies highlight substantial ambivalence for both service members and family members, as feelings of joy and relief are often accompanied by the increased stress of renegotiating family roles and routines (Faber et al., 2008; Huebner et al., 2007; O'Neal & Mancini, 2021). Because each phase of the deployment cycle has its own challenges for military families, it is imperative for both researchers and clinicians to consider the implications of discoveries from research on military deployments. Importantly, as we describe later, a few recent studies have taken advantage of longitudinal methodologies to explore how family processes evolve across the entire deployment cycle.

The military deployment of a parent offers youths opportunities for growth as well as challenges. For example, children may gain chances to take on additional household responsibilities that promote autonomy (Huebner et al., 2009). However, the impact of these responsibilities may vary based on youth age and readiness (Burton, 2007). As in other areas of inquiry, greater scholarly focus has been placed on the potential negative consequences of a parent's deployment for children's adjustment. For example, a cross-sectional study of preschool children from child development centers on Marine Corps installations produced evidence of increased symptoms of internalizing and externalizing disorders during parents' deployments, even after controlling for at-home parents' stress and parenting qualities (Chartrand et al., 2008). Similarly, children and adolescents exposed to longer deployments displayed elevated emotional difficulties (Chandra et al., 2010).

Studies of large representative samples from military populations further establish the impact of deployment on children. In the DoD-wide Millennium Cohort Family Study (Fairbank et al., 2018), although most children were functioning well

(based on parental report), at baseline, parental deployment with combat exposure was associated with reports of attention-deficit disorder/attention-deficit hyperactivity disorder and depression as diagnosed by a clinical provider. Also, children's odds of parent-reported depression were significantly higher in deployed groups than among families that had not experienced a deployment-related separation. The RAND Deployment Life Study followed families of deploying personnel from all service branches across the deployment cycle (Meadows et al., 2016). The study further confirmed the overall resilience of military families but found some elevated psychological symptoms among younger children during deployment and strained relationships with the deployed parent among teens after reintegration. Perhaps more interesting than these few elevated problems, however, was the protective finding that teens appeared to benefit significantly from interaction with other military peers during the deployment period. Findings like these have been largely corroborated by the results of two meta-analyses examining studies from the past two decades, confirming that parents' military deployments are linked with increased maladjustment among offspring, though the effects are generally small to moderate in size (Card et al., 2011; Cunitz et al., 2019).

Large-scale population-based studies of administrative records have generated more concerning findings, raising questions about selection effects in smaller studies. Results from studies investigating military medical records, for example, revealed that youth exposed to parents' deployments were diagnosed with internalizing and externalizing disorders at higher rates (Gorman et al., 2010) and were more likely to be treated with psychotropic medications (Larson et al., 2014) than those not exposed to parental deployment.

Recent studies utilizing probability and community-based samples, including several state-level youth health surveys, present a unique opportunity to study risk and resilience of youth experiencing parental separation due to military deployment (MacDermid Wadsworth et al., 2017). Several states conducted school-based surveys of large community samples of youth to monitor their health and risk behaviors (Reed et al., 2011; Sullivan et al., 2015). These studies were designed primarily to monitor the youth population over time using cross-sectional designs at regular intervals. The studies asked whether the youth have a parent in the military and/or experienced separation from their parent due to military deployment. While important details about the qualitative aspects of the separation as well as the timing and duration were not measured, the studies overcame several limitations present in existing studies of military-related parent separation. First, the samples were large and diverse, providing adequate samples of children exposed to separation as well as large comparison groups of youth without military parents or separation from parents due to deployment. Second, these studies included a rich array of health-related risk factors, particularly in the area of substance misuse, as well as protective factors in the family, peer, school, and community domains. Third, when combined over time and area, they provide important epidemiologic information about the consequences of parental separation due to both military deployment and, in some cases, incarceration, without the key limitations of earlier studies.

In these studies, parental military service and deployments were each associated with incremental behavioral risk factors. Based on comparative data across several of these surveys, youth exposed to parents' deployments were more likely to have engaged in substance use, carried a weapon to school, and experienced suicidal thoughts as compared to civilian children and military children not exposed to deployment (MacDermid Wadsworth et al., 2017). Among military children living in California whose parents had been deployed, reports of suicidal thoughts were 34% higher and reports of having carried a knife or gun to school were about double those of children whose parents had not been deployed and about 80% higher than civilian children at the same school (De Pedro et al., 2018; Gilreath et al., 2016).

The most recent Indiana Youth Survey ($n \approx 80,000$; Gassman et al., 2018) asked youth about both deployment and incarceration allowing researchers to compare the combined and separate effects of two unique types of parental separation. Preliminary evidence indicates that parental separation due to a military deployment and/or parental incarceration is negatively associated with a host of health and health behavior outcomes for children. While youth who experienced separation from a parent due to a military deployment (5.5%, $n = 4404$) had relatively small increments in risk relative to youth experiencing neither type of separation (70.7%, $n = 56,534$), those who were separated due to parental incarceration (20.7%, $n = 16,576$) had approximately double the risk compared to youth experiencing neither type of separation. About 3% of youth ($n = 2562$) had experienced both types of parental separation and these youth had the most elevated risk. For example, after controlling for child sex, age, race, ethnicity, and school, the probability of considering suicide increased from 0.13 to 0.33 for youth with no parental separation experience compared to those who experienced separation due to both deployment and incarceration (see Fig. 7.1a). Similarly, youth with no exposure to separation skipped an average of 0.34 school days in the past month, compared to 0.74 days for youth exposed to both types of separation (see Fig. 7.1b).

Given the established connections between parents' deployments and youth's mental health and adjustment, scholars in the past 20 years have increased their focus on the mechanisms that undergird these associations. Research investigating the associations between military deployments and children's mental health and well-being reveals both direct and indirect effects. For example, separation from a deployed parent may have direct effects on children's relationships and adjustment through disrupted attachment relationships with the deployed parent (Barker & Berry, 2009; Cozza & Lieberman, 2007). Importantly, children's insecure attachment behaviors are often linked with other problem behaviors including anxiety, difficult social relationships, and disrupted emotion regulation (Barker & Berry, 2009; Sroufe, 2005). Furthermore, following a parent's deployment, youth may experience feelings of uncertainty, confusion, and loss which may impede successful development (Huebner et al., 2007). Given knowledge of the dangers associated with a military deployment to active war zones, feelings of ambiguous loss may be especially likely among adolescents (Huebner et al., 2007).

Although the separation from a deployed parent may have direct effects on children's well-being and adjustment, systems-oriented work reveals that parents'

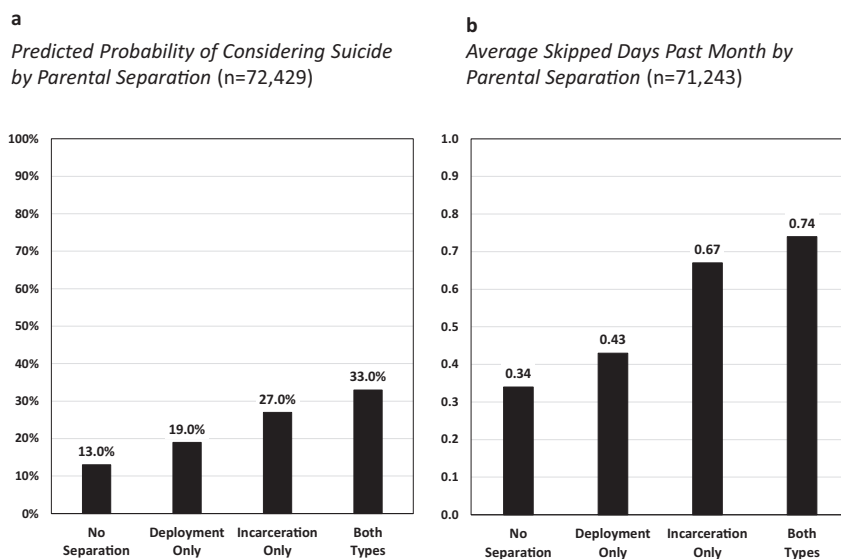


Fig. 7.1 Youth Outcomes and different types of Parental Separation. (a) Predicted probability of considering suicide by parental separation ($n = 72,429$). (b) Average skipped days past month by parental separation ($n = 71,243$)

military deployments are related to children's adjustment through the non-deployed parent's mental health and parenting. During deployment, at-home parents cope with their own feelings (e.g., worry or distress), navigate increased parenting demands and household responsibilities, and help their children adjust to the separation from the service member (DeVoe & Ross, 2012; Paley et al., 2013). At-home parents may experience increases in depression, anxiety, and sleep difficulties (Mansfield et al., 2010). The literature on mental health (in particular, depression) and parenting in nonmilitary samples highlights consistent links between depression and maladaptive parenting behaviors, including increased negative rearing and less frequent positive parenting behaviors (for a meta-analysis see Lovejoy et al., 2000).

Furthermore, these maladaptive parenting behaviors are often linked to adjustment difficulties in children. Young children of clinically depressed mothers, for example, are more likely to develop insecure attachments (Cicchetti et al., 1998) and demonstrate behavior problems (Embry & Dawson, 2002). School-aged children with depressed parents are more likely to show decreased school (Egeland et al., 1990) and social (Gross et al., 2008) competence. Consistent with this literature on civilian families, research with military families reveals that at-home parents' mental health during deployment is associated with child adjustment (Allen et al., 2010). Similarly, a study of Army spouses with a service member deployed discovered that at-home parents were at high risk for high-stress parenting, which in turn was related to increased psychosocial morbidity among their school-aged children (Flake et al., 2009).

In addition to higher stress, deployment of a spouse is linked to less sensitive parenting. During a separation, children look to their at-home parents for comfort, reassurance, and support (Paley et al., 2013). Parental responsiveness can dampen the adverse effects of an event on children (Rentz et al., 2007; Riggs & Riggs, 2011). Yet, results from a recent longitudinal study of National Guard families across the entire deployment cycle found that parental responsiveness on the part of the at-home parents declined over the course of deployment (O'Grady et al., 2018). At-home parents' responsiveness continued to decline during reintegration and in turn was linked with increased externalizing behaviors among children. Importantly, these linkages between parental responsiveness and youth's behaviors were found after controlling for changes in at-home parents' depressive symptoms. Given these connections, intervention programs focused on parenting efficacy and quality may be especially promising for promoting resilience among children in military families. Indeed, recent work with military parents revealed that parenting interventions strengthened both maternal and paternal self-efficacy, leading to positive gains in youth and parent adjustment (Gewirtz et al., 2016; Piehler et al., 2016).

The influence of deployment on parental stress and parenting style clearly has important implications for children's well-being, and one area of particular concern has been the risk for child maltreatment. In fact, deployment has been studied more than any other service-specific risk factor for child maltreatment in military populations (Hisle-Gorman et al., 2015; McCarroll et al., 2008; McCarthy et al., 2015; Rabenhorst et al., 2015; Taylor et al., 2016; Thomsen et al., 2014). There is some evidence that parental deployment increases the risk for child maltreatment. For example, in a study of military families from all branches of service living in Texas between 2000 and 2003, substantiated cases of child maltreatment increased 30% for each 1% increase in active-duty personnel departing for deployment (Rentz et al., 2007). Similarly, in a study of Army families with at least one prior substantiated case of child maltreatment, overall rates of maltreatment in families experiencing a deployment were 42% higher compared to periods of non-deployment, and rates of abuse specifically by female civilian spouses tripled during deployment (Gibbs et al., 2007).

As with many areas of study, however, not all analyses of deployment and child maltreatment have produced consistent results, and the influence of deployment on this outcome is likely complex. In particular, some evidence suggests that only certain types of child maltreatment or more severe cases increase during periods of war, and there may even be reductions in risk for certain types of maltreatment (Gibbs et al., 2007; McCarroll et al., 2008; McCarthy et al., 2015). For instance, a study of deploying Air Force personnel found increases in more severe child neglect and sexual abuse, but reductions in less severe forms of abuse, such as emotional abuse and mild neglect (Thomsen et al., 2014).

Mixed results regarding child maltreatment may be influenced by the fact that different subgroups of the military population may respond differently to the stress of deployment. For example, parent populations with more preexisting risk factors or fewer supports and resources may be more likely to exhibit increased risk for more severe perpetration, particularly in response to deployment-related stressors (McCarthy et al., 2015; Rabenhorst et al., 2015; Thomsen et al., 2014). Conversely,

more resilient subgroups may actually experience stress-related growth in response to deployment (Elder et al., 1989), and some have theorized that this may contribute to reductions in risk for less severe forms of maltreatment (Milner, 2015; Thomsen et al., 2014). Furthermore, the impact of deployment and the timing of greatest risk are likely different for the deploying versus at-home parent (Milner, 2015).

Although the military deployment of a spouse/partner is clearly linked to the mental health and parenting behaviors of at-home parents and, in turn, children's and youth's adjustment, parental deployments also shape other family subsystems. For example, in a recent study of 238 active-duty military families during the period of reintegration, interparental conflict was related to youth mental health and adjustment above and beyond the influence of parent-child relationships and youth's perception of the family climate (O'Neal & Mancini, 2021). Specifically, interparental conflict was positively related to youth's depressive symptoms and anxiety and negatively linked to youth's self-efficacy and personal well-being. These findings are consistent with the larger literature on interparental conflict and child adjustment among nonmilitary samples (for a meta-analysis see Rhoades, 2008).

Extending to other family subsystems, in a longitudinal study that followed National Guard families from predeployment through reintegration, youth's sibling relationships became less harmonious during the period when their parent was deployed; sibling relationship quality, however, returned to predeployment levels during reintegration (Whiteman et al., 2020). Importantly, changes in the sibling relationship were positively related to changes in children's adjustment (i.e., greater disharmony was associated with greater maladjustment) over time, above and beyond at-home parents' depressive symptoms and responsiveness. The finding suggests that the period in which their service member parent is deployed may be especially difficult as multiple family relationships may become strained. Although the associations between sibling disharmony and youth's adjustment difficulties point to sibling relationships as additional risk factors for youth's adjustment during these transition periods, the associations also suggest that sibling relationships can be leveraged as protective factors that promote resilience. Indeed, more positive sibling relationships were linked to fewer adjustment problems among youth. This finding, combined with other work suggesting that siblings often turn to each other to compensate for low levels of support from parents (Milevsky & Levitt, 2005; Noller, 2005), signals that sibling relationships are a logical target for family-based intervention efforts aimed at promoting resilience among youth.

In sum, largely consistent with early work on the implications of wartime deployments for families, research from the past 20 years has revealed that service members' repeated separations from their families are linked to stress and difficulty for at-home parents and children. Notably, this work advanced earlier understandings by implementing more prospective and longitudinal designs, using larger and sometimes probability-based samples, and attending to effect sizes. With the advantage of these advances, the results of two different meta-analyses revealed that associations between parental military deployments and children's adjustment are often small (Card et al., 2011; Cunitz et al., 2019). Further, recent research on the topic reinforces earlier findings of heterogeneity in at-home parents' and children's responses, suggesting multiple avenues for promoting resilience among this

population. Perhaps the greatest contribution of work from this period is the focus on the many mediating and moderating processes that connect parental deployments to youth's well-being. These include individual factors such as the at-home parents' mental health and parental efficacy, and the quality of all family relationships (e.g., interparental, parent-child, and sibling). As we discuss later, research and intervention programs focused on these various intervening pathways have the opportunity to promote resilience among military-connected youth.

Addressing Limitations of Existing Research

Despite decades of research on the effects of parent's recent deployments on children, significant limitations in study designs persist. First, there has been a predominant focus on current or recent deployments, leaving unanswered questions about longer term consequences on children's development and well-being. Related to this, uncontrolled heterogeneity in the timing of children's exposures and follow-up assessments makes it impossible to assess prolonged impacts, and limits the ability to explain heterogeneity in children's outcomes. Another constraint is that few studies to date have included data about military parents' experiences prior to deployment. This may lead researchers to blame deployments for parental characteristics that not only were preexisting, but may also have conditioned parents' reactions to deployment. A fourth constraint is that samples are predominated by children whose parents continue to serve, which, despite offering the advantage of probability sampling, can be biased toward *healthy warriors* who have repeatedly elected—and been medically cleared—to continue to serve and deploy. These samples therefore represent a select population of military service members. Although some work on moderation and mediation has been undertaken in recent decades, an additional limitation is that too little attention has been given to the mechanisms through which children's negative and positive outcomes occur, not to the contexts that potentiate them. Without determining the factors that facilitate outcomes or buffer risks, we are unable to develop programs to support children and families with respect to deployment separations. There continues to be heavy reliance on parent reports about children, which can be distorted by parents' own symptoms. Adolescents, in particular, can provide more valid assessments of their own well-being, especially when related to internalized problems.

A New Study: Operation Military Experience

In an effort to address some of the persistent limitations in the body of evidence regarding military children and parental deployments, the authors of this chapter have initiated the Operation Military Experience (ME) Study. The study will evaluate the long-term, direct and indirect pathways between early-life exposure to

parental deployments and later adjustment in adolescence, as well as the parental and family factors that influence these pathways.

Study Aims: The ME Study is motivated by the need to better understand the diversity in adaptation among military children who experienced parental separation due to military deployment early in life, when the foundations for many aspects of later functioning are laid and interactions with parents are especially important (Anda et al., 2006). These early experiences likely have implications for adjustment during adolescence, a critical developmental stage during which young people make decisions about substance use, risky behavior, and relationships with peers that are highly consequential for future development (Mansfield et al., 2010). The ME Study has three primary aims that include (1) evaluating the direct relationships between the timing, frequency, duration, and content of children's early (age <5 years) exposures to parental deployments and later adjustment during adolescence; (2) evaluating the role of parent's psychological health and family processes in mediating these relationships; and (3) evaluating the role of military parents' and children's vulnerability and support in moderating these relationships. We expect the specific characteristics of deployment to relate to adolescents' social, behavioral, and academic adjustment and hypothesize that parents' mental health, parenting efficacy, marital quality, and family functioning will mediate the associations between deployment and adolescent adjustment. We expect that both the direct and mediated pathways will be more negative in the presence of greater vulnerability and less formal and informal support. A conceptual model for the study is presented in Fig. 7.2.

Conceptual Model for the Operation Military Experience Study

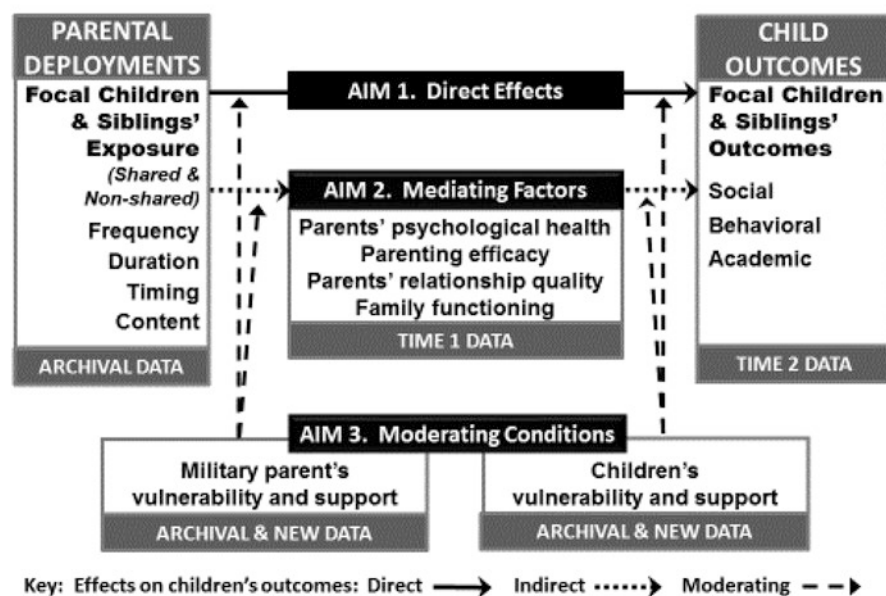


Fig. 7.2 Conceptual model for the Operation Military Experience Study

Parental wartime deployments are likely to have lasting consequences for children, particularly when they produce adverse experiences. This can include lengthy and repeated separations of young children and their military parents, service member's exposure to traumatic experiences during deployment, elevated mental health problems among parents (both service member and spouse), and increases in maltreatment of children during deployment. Therefore, it is important to study how these adversities relate long-term to adjustment and importantly to understand the parental and family factors that engender resilience. This study will expand knowledge about children's risk and resilience in families, particularly with respect to early adversities and their long-term outcomes. Findings from the study therefore have potential implications for schools, community organizations, and health-care providers.

Study Design: The ME Study will combine new longitudinal data gathered directly from parents and children with existing data on deployment and medical records from the DoD. The new data will be gathered on two occasions 12 months apart from two children and up to two parents in 513 randomly sampled families. Focal children will have experienced at least one parental deployment lasting at least 30 days prior to age 5. A sibling of the focal child will be included, and both the focal child and sibling will be aged 11–16 years at the launch of data collection. Data will be gathered via online surveys and telephone interviews.

Outcomes of the study will include indicators of children's social-emotional development, behavior, and academic performance. Social-emotional constructs to be measured include competence in several domains, anxiety, depression, peer relationships, post-traumatic growth, and sibling relationship qualities. Behavioral outcomes will include positive behavior (flourishing), prosocial and problem behaviors, risky behavior, and substance use. Academic engagement and school problems comprise the academic outcomes.

The ME study design is innovative and addresses several of the aforementioned constraints in research to date. A primary focus of the study is the assessment of long-term impacts by selecting participants with focal children aged 11–16 years who were first exposed to parental deployment prior to age 5. Another focus is to study family processes as mediators, and vulnerability and support as moderators, of children's positive and negative outcomes, formerly understudied aspects important for understanding the risk and resilience of children exposed to parental separation. The ME study will use a probability sample that includes both currently serving military members and former military members, thus including participants beyond the select sample of those who continue to serve. The ME study will also incorporate data from prior to deployment, including medical history and parents' exposure to adverse experiences, allowing for the disentanglement of preexisting circumstances from deployment effects, and the ability to examine heterogeneity in child outcomes related to the characteristics of deployment. The inclusion of a sibling of the focal child also helps disentangle effects by enhancing the ability to better understand child-specific characteristics and experiences in relation to deployment and family effects. Finally, the ME study will gather data directly from adolescents rather than relying solely on parent reports to assess adolescent outcomes.

Translating Research for Support and Intervention

Despite limitations in existing evidence, support programs and services have worked for decades to mitigate negative impacts of deployments for military children. In this section, we consider implications of the studies reviewed in this chapter, as well as emerging research on military family support programs and interventions (NASEM, 2019). Risk and resilience processes identified through this growing body of research can be conceptualized at the individual, family, and community levels (Saltzman et al., 2011). Accumulated research on family systems shows that individual family members mutually impact one another. That is, if one parent is navigating mental health problems, the other parent and the children will likely be impacted by these difficulties (MacDermid Wadsworth et al., 2013). For example, service members who return with combat-related mental health and/or physical injuries such as PTSD and/or traumatic brain injury have been found to have increased likelihood of physically aggressive responses to stress, reduced affective responsiveness related to withdrawal or numbing, as well as impaired judgement related to cognitive limitations (Meisnere et al., 2014; NASEM, 2019 for review), all of which can disrupt family relationships. Negative interactions in couple relationships may spill over, creating family-level conflict and disrupting parent-child relationships (Cox et al., 2001). Parents distressed by spousal conflicts may be less emotionally attuned to their children, may be more withdrawn, or may engage in negative discipline practices. Children may perceive interparental conflict as a threat to their emotional security, physical safety, or integrity of family life (Davies & Cummings, 1998; Paley et al., 2013).

Fortunately, a continuum of evidence-based and tiered health promotion interventions has been developed in other contexts that can be integrated into a systematic approach for reducing risk factors among military children facing parental deployment. The fields of applied developmental science and prevention science can provide considerable guidance in developing a continuum of programs targeted toward the military community. Consistent with a large body of research in nonmilitary contexts, intervention evaluation and research findings with military children and families indicate that enhancing the individual functioning of parents and children, as well as the functioning within and across relationship dyads (e.g., improving communication within and across parent-child, sibling, and couple relationships and increasing positive parenting and co-parenting), has a cascading impact on the family as a whole (NASEM 2019). For example, family research in civilian populations has consistently demonstrated that couples' relationship quality, parenting, parent-child relationship quality, and other family processes (e.g., co-parenting, family conflict) influence a range of social, emotional, and behavioral outcomes over the life course (NRC & IOM, 2009b; Spoth et al., 2002, Teubert & Pinquart, 2010). Not surprisingly, family-centered interventions have generalized or so-called crossover effects benefiting not simply the intended target (e.g., couple relationship, child adjustment) but the entire family system (NRC & IOM, 2009a, 2009b; Siegenthaler et al., 2012; Prinz, 2016).

A range of evidence-based family-centered intervention programs have already been adapted for military-connected families facing deployments. Overall, research trials and longitudinal program evaluation on family-centered interventions adapted for military families have also demonstrated the crossover effect of these interventions not only on the targeted outcome, such as parenting/co-parenting or child adjustment, but also on the entire family system through reciprocal and cascading positive effects that may occur over time (NASEM, 2019).

Figure 7.3 provides an overview of the mechanisms of impact that military life stressors may have at different levels within the family, as well as examples of evidence-based programs (EBPs) that have been adapted to target identified individual, couple, parenting, and family-level processes. These include strength-based approaches that focus on enhancing couple, family, and parent-child relationships by fostering family resilience processes (e.g., emotion regulation, communication, problem-solving, and positive parenting). Many have been adapted and implemented within the continuum of services that has been identified as the Military Family Readiness System (NASEM, 2019).

One seminal example of an evidence-based preventive intervention adapted for military-connected families is Families OverComing Under Stress or FOCUS. This trauma-informed family-centered preventive intervention has been implemented for active-duty military families and veteran families in a range of community contexts (Beardslee et al., 2011; Lester, Klosinski, et al., 2016a). With a framework that emphasizes family strengths and resilience, the FOCUS intervention is designed for culturally diverse and single- or dual-parent/caregiver families who may be contending with a variety of transitions and challenges.

Military Family Stressors Parental psychopathology: PTSD, depression, substance use Child abuse and neglect (maltreatment) Death of a parent Physical injury Intimate partner violence Child mental health problems ➔	Family Level	Resilience Processes Targeted for Prevention/Intervention	EBP Intervention Examples
	Individual stress regulation	Individual treatment to remit symptoms and prevent deterioration that includes the family	- Evidence-based individual treatments - Trauma-focused Cognitive Behavioral Therapy (TF-CBT)
	Parent-child relational processes	Effective parenting practices: attachment, reflective capacity, warmth, structure, encouragement, discipline, problem-solving, communication, monitoring (middle childhood and adolescence)	- Family Advocacy Program - New Parents Support Program - Strong Families, Strong Forces - Strong Military Families - ADAPT - FOCUS Families – Early Childhood - Parent-Child Interaction Therapy (PCIT)
	Couple-relational processes	Effective relationships, problem solving, co-parenting	- Strong Bonds - Strength at Home - FOCUS – Couples - Cognitive-behavioral couple therapy for PTSD
	Overall family processes	- Family level practices - Individual and interpersonal skill development: communication, emotional regulation, problem-solving, goal setting, management of trauma and loss reminders, narrative reflection/shared meaning	- FOCUS – Couples and Families - Family Focused Therapy for TBI - Family Bereavement Program

Note: Compiled by the Committee on the Well-Being of Military Families (NASEM, 2019; used with permission)

Fig. 7.3 *Effects of Military Family Stressors and EBP Intervention Examples.* Note: Adapted and reproduced with permission from “Strengthening the Military Family Readiness System for a Changing American Society,” by National Academies of Sciences, Engineering, and Medicine, 2019, National Academies Press. <https://doi.org/10.17226/25380>

FOCUS was adapted from core components of the developers' evidence-based interventions already shown in randomized control trials with longitudinal follow-up to improve parent and child psychological health and enhance family functioning (Family Talk: Beardslee et al., 2003, 2007; Teens and Adults Learning to Communicate: Rotheram-Borus et al., 2004, 2006; Lester, Klosinski, et al., 2016a). The core intervention components of FOCUS were defined through expert consensus and customized for military families using community participatory methods. These core elements include (1) the FOCUS Family Resilience Check-Up: an evidence-based assessment and real-time personalized guidance to assist the provider and family in tailoring program content to their unique strengths and challenges; (2) context-specific psychoeducation, such as trauma- and resilience-informed education, positive parenting, and developmental guidance; (3) individual- and family-level skill development (e.g., emotional regulation, problem-solving, managing separation/trauma/loss reminders); and (4) development and sharing of individual- and family-level narrative communication timelines designed to make meaning of and increase the understanding of challenging family experiences (Lester, Klosinski, et al., 2016a; Beardslee et al., 2013). Delivered either in-person or through a home tele-health platform, FOCUS provides education and skills that support parenting/co-parenting; parent-child, sibling, and couples' relationships; and a shared understanding of past experiences. Research from longitudinal program evaluation indicates that FOCUS has a positive and sustained impact on parental depression, anxiety, and PTSD symptoms; on family adjustment (including communication, emotional relatedness); and on both parent- and child-reported child well-being outcomes, including decreased internalizing and externalizing symptoms, improved prosocial behaviors, reduced anxiety, and improved coping (Lester et al., 2013; Lester, Liang, et al., 2016b; Saltzman et al., 2016). Between 2008 and 2020, FOCUS services have been implemented at 34 military installations with consistently high levels of engagement, as well as high adherence by families within the multisession models.

Future Directions for Research and Support

Gaps exist in our understanding of the impact of deployment on military children and families. Studies that utilize administrative data sets as well as longitudinal data collection will assist in addressing some of the specific gaps. These data will help to guide the development and adaptation of specific interventions and to inform population-level public health approaches that more effectively promote well-being and resilience, as well as mitigate the potential negative impact of parental deployments on development and adjustment in military children.

These types of family-strengthening programs are critical to a public health approach to supporting well-being of children and families. Family-centered approaches offer an opportunity to promote resilience processes across the family system and help individuals and families as a whole. A systems-level approach and

ecological framework attend not only to the family system, but also to the social context where military children and families live, such as primary care and school settings. Developing a population-level continuum of support for deploying military families requires attention not only to the needs of active-duty families with access to installation-specific resources, but also to the needs of reserve component families who may be navigating deployment experiences within civilian communities that lack culturally responsive resources for military children.

In developing, implementing, and evaluating programs to improve military family well-being and prevent behavioral health problems, it is important to acknowledge that many of the challenges faced by military families are similar to those found in civilian communities. These challenges are amplified though by the limitations of existing research on military child and family resilience and well-being, as well as by a complex and dynamic landscape of military contexts, services, and policies. Military service, including during wartime, will always bring unanticipated challenges for families, requiring an adaptive approach to supporting child and family well-being and resilience. As identified in a recent Institute of Medicine report, the population mental health framework can inform the continuum of military family readiness services that would be responsive to the complex and emergent needs of military families (Fig. 7.4; NASEM, 2019).

A continuum of coordinated support is needed to build upon local (and heterogeneous) capacities, strengths, and resources. This continuum of support will function most effectively if designed to be adaptive, incorporating ongoing research findings as well as stakeholder expertise (e.g., DoD and local communities) in the selection, adaptation, adoption, and implementation of support services. Existing EBPs can be adapted using a community participatory approach that includes stakeholders in the

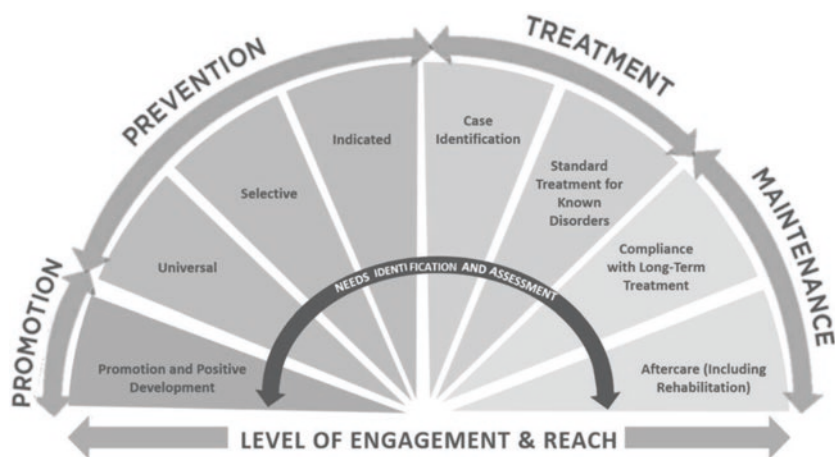


Fig. 7.4 *Population Mental Health Framework.* Note: Adapted and reproduced with permission from “Strengthening the Military Family Readiness System for a Changing American Society” by National Academies of Sciences, Engineering, and Medicine, 2019. National Academies Press. <https://doi.org/10.17226/25380>

identification, development, adaptation, and monitoring processes to meet the needs of military families for resilience and well-being through the military health care and community settings in which they could be delivered. Continuous monitoring can provide ongoing information about the impact of programs over time and identify emerging positive adaptations as well as emerging needs in military children and families. This approach to prevention and intervention program monitoring includes not only individual- and family-level measurement but feedback from program staff as well as military childcare providers and system leaders (Chambers & Norton, 2016; NASEM, 2019). A continuous learning infrastructure includes informatics, with real-time access to knowledge and digital capture of the service experience; partnerships of providers and data scientists with engaged and empowered families; and a leadership-instilled culture of continuous learning (Grossman et al., 2011; Smith et al., 2013; NASEM 2019).

This chapter has traced a long path from the earliest research about military children separated from their fathers by military deployments to recent investigations of military families. Some findings have consistently emerged as robust, including children's distress and resilience in relation to separation and importance of parents' responses to their children. It is clear that entire family systems are implicated in deployment experiences. For every outcome studied, it is more common for families and children to display resilience rather than vulnerability. It is also clear though that some portion of the population experiences clinically significant problems, which are more likely when deployments expose families to traumatic consequences. Recent research has traced specific pathways of influence as the effects of deployment travel through families. Despite all the knowledge gained, significant questions remain, some of which will be addressed by new research initiated by the authors of this chapter. Military systems have evolved from ignoring or excluding families to a more systematic and intentional configuration of formal supports. Increasingly, prevention and treatment are recognized as part of a full continuum of care. Thanks to prevention science, future evolution of the evidence base can be incorporated into a public health approach that links community members, evidence, and practice, and continuously learns and improves.

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