REACH

Supporting Military Families Through Research and Outreach

Child Maltreatment in the Military: Understanding the Research

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Research

Outreach

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Military REACH, a project of the DoD-USDA Partnership for Military Families, utilizes a multi-disciplinary approach integrating both Research and Outreach to support those who work with and on behalf of military families. Through our three-fold approach, we provide empirical research that identifies and addresses key issues impacting military families and the programs that serve them, offer outreach and professional development through online resources, and host a Live Learning Lab for program staff seeking constructive professional development feedback for their programs.

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Executive Summary

Child maltreatment is a widespread problem with serious adverse consequences for children and families (Gilbert et al., 2009; Infurna et al., 2016). Like other families, military families are at risk for experiencing child maltreatment. Given this, the Department of Defense (DoD) has made substantial efforts to reduce child maltreatment among military families (Milner, 2015). These efforts have included providing resources to promote military family well-being, conducting research related to military child maltreatment, and providing families with high-quality preventative interventions to reduce the risk of child maltreatment or the negative consequences of child maltreatment. These resources and programs for military families may partially explain why military rates are lower than civilian rates of child maltreatment. Indeed, although military rates have increased, they have stabilized over the past few years and have been consistently lower than civilian rates over the past decade (U.S. Department of Defense, 2017; U.S. Department of Health and Human Services, 2017). To continue to reduce military child maltreatment and provide high-quality, evidence-based preventative interventions to military families, it is vital to gain an in-depth understanding of the current research on the effectiveness of preventative interventions and factors, such as risk and protective factors, that may impact effectiveness. Ultimately, this information will inform researchers, practitioners, and policy makers as they attempt to reduce child maltreatment and the related consequences.

Many factors may influence the effectiveness of preventative interventions for child maltreatment. Risk and protective factors for military and civilian populations that impact child, parent, and family risk for experiencing maltreatment are particularly well-researched and may be especially informative for preventative intervention provision. For instance, parents who are young (Cozza et al., 2015; Warren & Font, 2015), unemployed (Whitt-Woosley, Sprang, & Gustman, 2014), and less educated (Crouch et al., 2015) are at increased risk for child maltreatment perpetration, and it may be important to target these parents in efforts to reduce maltreatment. In addition to these risk factors military families also possess unique risk and protective factors that civilian families do not. For example, the supports and services that military families have access to (e.g., financial benefits, parenting programs) may help reduce the risk of child maltreatment (Clever & Segal, 2013; Milner, 2015; Slep & Heyman, 2008; Travis, Heyman, & Slep, 2015). However, military families also encounter specific military-related stressors that may increase risk. For example, research suggests that deployment may put families at increased risk for experiencing child neglect during deployment (e.g., Gibbs, Martin, Kupper, & Johnson, 2007; McCarthy et al., 2015; Rabenhorst et al., 2015; Taylor et al., 2016; Thomsen et al., 2014). Overall, it is important to consider the role of risk and protective factors, including military-specific factors, on the effectiveness of preventative interventions for child maltreatment.

There are different types of preventative intervention programs, and these programs are often differentiated by whether they intervene prior to child maltreatment (i.e., proactive) or after (i.e., reactive). Proactive programs aim to reduce the risk of child maltreatment and can either be universal (for the general public or a whole population) or targeted (for at-risk parents, children, and families). Reactive programs either aim to reduce the risk of child maltreatment reoccurrence or to mitigate the negative consequences of maltreatment on children (MacLeod & Nelson, 2000; MacMillan et al., 2009). While each type of program has its advantages and disadvantages, many experts suggest that all program types should be provided within a public health system model for child maltreatment. This model would provide universal assessment, as well as supports and services for families at all levels of risk, with increasing intensity and specialization of support based on families' needs (Daro, 2016; Scott, Lonne, & Higgins, 2016). Preventative interventions have already been developed across this continuum of program types, and some are specifically designed for military families. It is important to note that

while the majority of preventative intervention programs developed specifically for military families aim to help families cope with the unique stressors associated with deployment, a few programs have been targeted toward preventing child maltreatment in particular. Military-specific preventative interventions are typically suitable for use as either universal or targeted programs; however, it is unclear whether programs have been used or would be effective for preventing child maltreatment reoccurrence or child impairment after maltreatment has occurred.

Regardless of the type of preventative intervention program (e.g., proactive, reactive, targeted, universal), research suggests there are several program factors that should be considered when planning, implementing, and evaluating preventative interventions. For instance, when developing a program or planning the provision of a program, factors to consider include qualifications of the providers who will implement the program, services and curricula offered, the population to be targeted, and the intensity and duration of the program (Allen, 2007; Casillas, Fauchier, Derkash, & Garrido, 2016; Howard & Brooks-Gunn, 2009; Reynolds, Mathieson & Topitzes, 2009). Program factors important to consider during implementation include participant retention, fidelity of implementation, and cultural adaptation (Allen, 2007; Beasley et al., 2014; Casillas et al., 2016). Finally, the primary program factor to consider when evaluating a program via research is outcome measurement (e.g., parenting, child well-being, CPS reports; Casillas et al., 2016; Howard & Brooks-Gunn, 2009). A preventative intervention program must ultimately be compatible with the program context, target population, and available resources as well. Overall, programs that produce the largest effect sizes tend to utilize highly qualified staff for implementation, focus on fidelity of implementation, and be developed via research rather than based solely on practice (MacLeod & Nelson, 2000; MacMillan et al., 2009). It is necessary to keep each of these factors in mind in order to further efforts to reduce child maltreatment via preventative intervention provisions.

In summary, it is important to understand the research regarding preventative interventions for child maltreatment in order to provide high-quality, evidence-based programs to military families. An understanding of factors that may influence effectiveness (e.g., risk and protective factors), as well as knowledge regarding the effectiveness, costs, and benefits of different types of preventative intervention programs (e.g., proactive, reactive, targeted, universal), is necessary for program development, implementation, and evaluation. Ultimately, this information is valuable for informing future research, policy, and program efforts to reduce child maltreatment among military families.

Introduction

Child maltreatment is a pervasive problem that influences the health and well-being of children and their families throughout the United States (U.S. Department of Health and Human Services, 2017). Numerous adverse emotional, educational, and physical outcomes have been linked to child maltreatment. For instance, maltreated children are more likely to experience mental health problems, such as depression (Amado, Arce, & Herraiz, 2015; Infurna et al., 2016) and anxiety (Amado et al., 2015; Johnson et al., 2002), and impaired cognitive functioning (Masson, Bussières, East-Richard, R-Mercier, & Cellard, 2015). Especially concerning is that child maltreatment can be fatal, with more than 1,500 reported child fatalities in the United States each year (Palusci & Covington, 2014; U.S. Department of Health and Human Services, 2017). The deleterious consequences of child maltreatment can continue into adulthood. Child maltreatment has been associated with an increased risk of posttraumatic stress disorder (Scott et al., 2010), depression (Lindert et al., 2014; Nanni, Uher, & Danese, 2012), anxiety (Fergusson, Boden, & Horwood, 2008; Lindert et al., 2014; K. M. Scott et al., 2010), suicidal ideation and suicide attempts (Fergusson et al., 2008), obesity (Danese & Tan, 2014), and substance abuse (Fergusson et al., 2008; Scott et al., 2010) among adults. Adults who were abused as children are also at an increased risk for future perpetration and victimization, particularly those who have physical or mental disabilities or posttraumatic stress symptoms (Daigneault, Hébert, & McDuff, 2009; Milner et al., 2010).

Over the past decade, military families have experienced markedly lower rates of child maltreatment than civilian families.

Child maltreatment can be experienced in families of all kinds, including military families. Military families may have different risk and protective factors related to child maltreatment than civilian families given the differences in the populations (e.g., age, gender) and the differing stressors (e.g., deployment, reintegration, frequent relocation) and buffers to stress (e.g., family readiness programs, steady income). Over the past decade, military families have experienced markedly lower rates of child maltreatment than civilian families (U.S. Department of Defense, 2017; U.S. Department of Health and Human Services, 2017). Characteristics of military families could serve as protective factors against experiencing child maltreatment. For instance, Service members are screened for mental health issues and illicit drug use prior to enlisting and are continually monitored while serving (Bray et al., 2010). In addition, Service members receive consistent income, housing allowances, childcare, and comprehensive healthcare (Hosek & Wadsworth, 2013). However, frequent job changes and relocations (Gibbs, Martin, Clinton-Sherrod, Hardison Walters, & Johnson, 2011; Milner, 2015; Rentz & Martin, 2006), Service members' long work hours and potentially dangerous work environments (Hosek & Wadsworth, 2013; Rentz & Martin, 2006; Stith et al., 2009), and deployment stressors (McCarthy et al., 2015; Rentz et al., 2007; Taylor et al., 2016) may play a role in the incidence of military child maltreatment.

In recent years, the Department of Defense (DoD) has increased its efforts to reduce child maltreatment within military families (Milner, 2015). These efforts have included sponsoring and conducting numerous research projects and initiatives in order to understand how child maltreatment uniquely affects military families and how it may be prevented. These increased efforts were prompted by rising rates of child maltreatment in the military over the past decade; however, rates of military child maltreatment have stabilized over the past few years (U.S. Department of Defense, 2017). This may be in response to the DoD's increased efforts to reduce child maltreatment in the military, which highlights the importance of

continued research and preventative intervention efforts. An in-depth understanding of the current literature regarding effectiveness of preventative interventions and factors affecting preventative intervention effectiveness is needed to inform future efforts. This report will review the risk and protective factors associated with child maltreatment and provide an overview of current programs aimed at reducing child maltreatment among civilian and military families.

Definition and Type of Child Maltreatment

In order to understand the research regarding child maltreatment in the military, it is important to have an understanding of how child maltreatment is defined and how suspected incidents of child maltreatment are evaluated. Within the military, DoD policy provide a standard definition of child maltreatment. DoD Instruction 6400.03 Family Advocacy Command Assistance Team (FACAT) defines child maltreatment as:

> The physical or sexual abuse, emotional abuse, or neglect of a child by a parent, guardian, foster parent, or by a caregiver, whether the caregiver is intrafamilial or extrafamilial, under circumstances indicating the child's welfare is harmed or threatened. Such acts by a sibling, other family member, or other person shall be deemed to be child abuse only when the individual is providing care under express or implied agreement with the parent, guardian, or foster parent. (2014, p. 11)

DoD policy further differentiates between four types of child abuse: physical abuse, emotional abuse, sexual abuse, and neglect (U.S. Department of Defense, 2016). Although briefly highlighted here, DoD Manual 6400.01, Volume 3 (2016) Family Advocacy Program (FAP): Clinical Case Staff Meeting (CCSM) and Incident Determination Committee (IDC) provides the specific criteria an incident must meet in order to be considered child maltreatment.

Type	Definition
Physical Abuse	Any intentional act that results in, or has the potential to result in, physical injury to a child. Examples can include such physical acts as hitting, kicking, throwing, biting, shaking, burning, or poisoning.
Emotional Abuse	Any act or pattern of behaviors that cause psychological harm to a child. Examples can include criticizing, rejecting, or otherwise causing a child to doubt their worth and value.
Sexual Abuse	Any sexual act (e.g., sexual exploitation without direct contact) or sexual contact (e.g., rape, sexual assault, sodomy) with a child for the sexual gratification of the caregiver.
Neglect	The failure of a caregiver to provide adequate food, housing, medical care, access to education, or supervision.

Processes of Reporting, Assessment, and Determination of Child Maltreatment

In addition to understanding the definition of child maltreatment, it is important to know how reports of child maltreatment are evaluated within the military. The Family Advocacy Program (FAP) is a congressionally mandated DoD program formally established in 1981 and is responsible for the prevention, intervention, and treatment of child maltreatment within military families (U.S. Department of Defense, 2015). FAP is part of the DoD's coordinated community response system and works closely with civilian child protective service agencies (CPS) and civilian law enforcement. All reported cases of child maltreatment involving an Active Duty Service member, as either the perpetrator or the non-perpetrating parent, are reported to and assessed by FAP. FAP is required to refer these same child maltreatment cases to the local CPS. In most, if not all, cases installation FAP offices are the primary on child maltreatment cases. FAP and CPS work together through Memorandums of Understanding and CPS refer to FAP in kind. Every military branch, including the Army, Navy, Air Force, Marine Corps, and Coast Guard, is responsible for establishing a FAP (Travis, Heyman, et al., 2015).

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When FAP receives a referral for suspected child maltreatment (which can be reported by CPS, military or civilian professionals, or non-professionals), a FAP clinical service provider completes a clinical assessment with the perpetrator, child victim, and other relevant sources (e.g., teachers, childcare personnel, physicians). The child's level of risk is assessed, and FAP, CPS, and law enforcement work collaboratively to ensure the child's safety. All relevant information is then presented to the Incident Determination Committee (IDC), a multidisciplinary team of military and civilian personnel that determines whether a suspected report of child maltreatment meets criteria per FAP (U.S. Department of Defense, 2017). This team uses standardized definitions of child abuse (U.S. Department of Defense, 2016) and a decision tree algorithm to make an overall determination based on committee votes for each child maltreatment criterion (U.S. Department of Defense, 2015). The use of this decision tree approach helps increase the reliability and validity of determinations (Travis, Collins, McCarthy, Rabenhorst, & Milner, 2014). Families with incidents that met criteria for child maltreatment are provided appropriate resources and case reviews, and a case is closed once treatment is completed. Families with child maltreatment incidents that do not meet criteria are also provided optional interventions and support services. In order to track known military child maltreatment, cases that meet criteria are entered into the service branch's central registry. These data systems are maintained by each service branch and are used to track incidents of child maltreatment that are reported to FAP (U.S. Department of Defense, 2017).

Trends in Child Maltreatment Rates in the Military

To better understand efforts aimed at reducing child maltreatment in military families, it is necessary to understand how the rates of child maltreatment have changed over time. Overall, the rates of suspected child abuse incidents in the military have increased over the last 10 years (U.S. Department of Defense, 2017). In fiscal year 2007, the rate of suspected reports of military child maltreatment was 12.5 per 1,000 children. This rate decreased slightly in 2008-2009 to 11.3 and 11.2, respectively per 1,000 children. Since 2009, rates continued to increase, peaking in 2014, with 15.7 reported incidents of suspected child maltreatment per 1,000 military children. Recently, rates have begun to stabilize, with a

rate of 15.5 reports per 1,000 children in 2015 and a rate of 14.4 suspected incidents per 1,000 children in 2016. This represents a 7% decrease in suspected reported incidents between 2015 and 2016. However, rates of reported incidents are still higher than they were ten years ago, which could indicate that child abuse awareness efforts and policies identifying mandated reporters have caused military members, professionals, and families to report suspicious behavior or suspected abuse to FAP earlier. However, the importance of continued efforts to reduce the occurrence of child maltreatment in the military need to be highlighted. Rates of child maltreatment that meet criteria have also increased across the past decade. In 2007, the rate of incidents that met criteria was 4.9 incidents per 1,000 children, and this rate rose steadily for several years, peaking in 2014 with a rate of 7.3 incidents per 1,000 children. The military rate of incidents that met criteria remained consistent from 2015 to 2016 at 7.2 per 1,000 children (U.S. Department of Defense, 2017).

Data indicates that the majority of reported incidents that met criteria for child maltreatment for military families were for

child neglect (58.66%)
physical abuse (19.72%)
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sexual abuse (4.4%).

The most recent data indicates that the majority of reported incidents that met criteria for child maltreatment in military families were for child neglect (58.66%), followed by physical abuse (19.72%), emotional abuse (17.18%), and sexual abuse (4.4%; U.S. Department of Defense, 2017). In 2015, the DoD increased its efforts to address child neglect. However, rates of neglect remain relatively high compared to the other types of abuse, highlighting an important area for future child maltreatment research. Male and female military children are victimized at similar rates (51% male; 49% female). However, over half of maltreated children are under the age of five (55.4%). In addition, most offenders who met criteria for child maltreatment were either a military (50%) or civilian (41%) parent. When the offender was a military parent, they were more likely to be a junior enlisted member (68% E4-E6 and 15% E1-E3; U.S. Department of Defense, 2017). Therefore, it may be important for programs which aim to reduce military child maltreatment to focus their efforts on helping military parents and their spouses, particularly younger parents and parents of children under the age of five (U.S. Department of Defense, 2017).

Military and Civilian Rates of Child Maltreatment

Over the past decade, civilian families have consistently had higher rates of child maltreatment than military families. In order to accurately compare rates of child maltreatment in the military with rates of maltreatment within the civilian population, duplicated and unduplicated child victim rates were examined. FAP's unduplicated child victim rate was 4.5 per 1,000 children in 2007, and peaked in 2014 to a rate of 5.6 per 1,000 children. This rate decreased in 2015 to 5.3 and continued to decrease to 5.1 per 1,000 children in 2016. Unduplicated civilian child maltreatment rates were 10.6 in 2007 and decreased consistently to a rate of 9.1 in 2013, with an increase to 9.4 in 2014 (U.S. Department of Health and Human Services, 2009, 2010a, 2010b, 2011, 2012, 2013, 2015, 2016). The most recent unduplicated civilian data rate for 2015 was 9.2 per 1,000 children (U.S. Department of Health and Human Services, 2017).

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Examining duplicated rates of child maltreatment, which account for multiple incidents perpetrated against the same child, the military rate was 4.9 incidents that met criteria per 1,000 children in 2007 and steadily increased to a rate of 7.2 in 2015 and 2016 (U.S. Department of Defense, 2017). On the other hand, the civilian rate was 10.4 in 2007 and has steadily decreased over the decade to 9.9 incidents per 1,000 children in 2015 (U.S. Department of Health and Human Services, 2017). Overall, despite the increases in military child maltreatment over the past decade and the fact that child maltreatment incidents intentionally have a lower threshold to meet criteria in the military, rates of military child maltreatment have remained consistently lower than those of U.S. civilian rates (U.S. Department of Defense, 2017).

Challenges in Research on Child Maltreatment

A variety of challenges need to be considered when interpreting research about child maltreatment, particularly as it relates to efforts for reducing child maltreatment. First, not all incidents of child maltreatment in both military and civilian families are reported to FAP or CPS. Most likely, rates of child abuse and neglect are underreported (Gilbert et al., 2009). Therefore, strategies and efforts to reduce child maltreatment should target all families, particularly those considered high-risk or those with histories of child maltreatment. Second, it is important to take caution when comparing rates of child abuse and neglect among civilian and military populations. FAP and CPS differ in the way they define, determine, and report rates of child maltreatment (Child Welfare Information Gateway, 2016; DePanfilis & Salus, 2003; U.S. Department of Health and Human Services, 2017). These differences make direct comparisons difficult, and comparisons should only be made with these considerations in mind. Additionally, child maltreatment incidents are much more likely to meet criteria among military than civilian families (U.S. Department of Defense, 2017), potentially due to FAP's lower threshold and greater focus on providing support and resources. Therefore, the lower rate of child maltreatment in the military is not a result of fewer incidents meeting criteria (U.S. Department of Defense, 2017). Finally, military families may have different risk and protective factors related to child maltreatment than civilian families. It is important to consider the population differences (e.g., age, gender) and context differences (e.g., deployment, reintegration, frequent relocation) when evaluating and determining the most appropriate strategies for child maltreatment reduction among families in either population.

Risk and Protective Factors Impacting Rates of Child Maltreatment

Risk and protective factors can influence the rates of child maltreatment and have implications for how programs aimed at reducing child maltreatment should be designed and implemented. To understand this influence, there are several research models that help explain how various risk and protective factors may contribute to child maltreatment. Cumulative risk models of child maltreatment suggest that the more risk factors and fewer protective factors for maltreatment a child possesses, the more likely they are to experience maltreatment (Begle, Dumas, & Hanson, 2010; Masten & O'Dougherty Wright, 1998). Another model, the ecological-transactional model, proposes that several levels of factors in a child's life (e.g., child, parent, family, environment) can contribute to maltreatment risk and that each level can interact to influence risk (Cicchetti & Lynch, 1993; Cicchetti, Toth, & Maughan, 2000). Recently, researchers have combined these models into a cumulative-ecological model of child maltreatment, which suggests that risk factors from many ecological levels of a child's

Military families face many of the same stressors as civilian families, although some risk and protective factors are specific to military families.

life can accumulate, as well as interact, to predict child maltreatment risk (MacKenzie, Kotch, & Lee, 2011). Since several risk and protective factors are related to stress, the stress and coping model of child maltreatment (Hillson & Kuiper, 1994) suggests that factors associated with child maltreatment often indicate processes that increase or buffer stress placed on different ecological levels (e.g., children, parents, families, communities). Military families face many of the same stressors as civilian families, although some risk and protective factors are specific to military families (Fullerton et al., 2011; Milner, 2015). Therefore, an understanding of these shared and specific risk and protective factors is important when considering child maltreatment rates and reduction efforts.

Child Factors. Child characteristics are one factor to consider when reviewing rates of child maltreatment. Among both military and civilian populations, young children (Cozza et al., 2015; Palusci, 2011) and children with physical or developmental problems (e.g., cognitive delays, birth defects, low birth weight) are at increased risk for experiencing maltreatment (Dubowitz, Kim, et al., 2011; Gumbs et al., 2013; Slack et al., 2011). Research regarding child maltreatment and child gender is mixed, with many studies suggesting males are more likely to be victims than females (Gumbs et al., 2013; Palusci, 2011) while some studies report contradictory findings (Rentz et al., 2008). Conclusions may vary depending upon type of maltreatment (e.g., neglect, physical abuse, sexual abuse) or other incident characteristics.

Parent or Caregiver Factors. Numerous parent (or caregiver) characteristics have been researched as potential risk or protective factors for child maltreatment. Parents at increased risk for perpetrating child maltreatment are more likely to be younger (Cozza et al., 2015; Warren & Font, 2015), unemployed (Coulton, Crampton, Irwin, Spilsbury, & Korbin, 2007; Whitt-Woosley et al., 2014), unmarried (Douglas & Mohn, 2014; Slep, Heyman, & Snarr, 2011), recipients of government assistance (Lee, 2013; Li, Godinet, & Arnsberger, 2011), and less highly educated (Crouch et al., 2015).

One parent characteristic that may differ between military and civilian families is parent's age. The national trend among civilians has increasingly been to have children later in life (Mathews & Hamilton, 2016). However, military families have children at younger ages than civilians, and the military population in general is primarily young men and women (Clever & Segal, 2013). Given that young parents are at increased risk for child maltreatment (Cozza et al., 2015; Warren & Font, 2015), this difference could confer greater risk on military families.

There are also risk factors related to parents' health and behaviors, including increased stress related to parenting and other responsibilities (Lee, 2013; Li et al., 2011; Maguire-Jack & Negash, 2016) and poor parental mental health, particularly depression (Li et al., 2011; Maguire-Jack & Negash, 2016). Parental substance use has been associated with a greater risk for child maltreatment (Dubowitz, Kim, et al., 2011; Palusci, 2011), and one study among Active Duty Army parents estimated that approximately 13% of offenders had used substances during a maltreatment incident (Gibbs et al., 2008). Moreover, parents with a history of trauma and child maltreatment are approximately twice as likely to perpetrate child maltreatment than parents without a similar history (Craig & Sprang, 2007; Li et al., 2011).

Family Factors. There are a number of family factors that place families at risk for child maltreatment, including economic hardship (e.g., lower household income, housing insecurity; Coulton et al., 2007; Palusci, 2011; Warren & Font, 2015) and having larger families with more children (Dubowitz, Kim, et al., 2011; Lee, 2013; Maguire-Jack & Negash, 2016). Intimate partner violence (IPV), another major family stressor, is related to increased risk of child maltreatment for both perpetrators and victims of IPV (Duffy, Hughes, Asnes, & Leventhal, 2015; Martin et al., 2007; Slack et al., 2011). For

instance, in a sample of Active Duty Army parents who perpetrated child maltreatment, 26% of perpetrators were also victims of IPV (Martin et al., 2007). No studies have specifically examined differences in changes in family risk or protective factors for military families that may have contributed to trends in military child maltreatment rates.

Military-Specific Factors. Military families possess many of the same risk and protective factors as civilian families; however, there are protective factors specific to military families that may reduce the risk of child maltreatment. For instance, families from all branches of the military have access to parenting programs to help young, high-risk parents learn effective parenting skills (Slep & Heyman, 2008; Travis, Walker, et al., 2015). Compared to civilian parents, military parents are more likely to be married and to have at least a high school degree (Clever & Segal, 2013). They also receive resources provided by the military that can minimize financial hardship (e.g., health benefits, housing, steady employment and income; Clever & Segal, 2013; Milner, 2015). In fact, in a study comparing civilian families and families from multiple military branches (i.e., Army, Air Force, Navy, Marine Corps) in Texas, military families were less likely to report financial problems than civilian families (5.2% compared to 18.7%; Rentz et al., 2008).

Military families also encounter specific military-related stressors and risks that civilian families do not (Fullerton et al., 2011; A. Porter, 2013). For example, deployment is one military-specific stressor that research suggests may be related to child maltreatment (e.g., Gibbs et al., 2007; McCarthy et al., 2015; Rabenhorst et al., 2015; Rentz et al., 2007; Taylor et al., 2016; Thomsen et al., 2014). Among Army families, periods with higher rates of military deployment have been associated with increased rates of child maltreatment (McCarroll, Fan, Newby, & Ursano, 2008). When examining families in Texas, each 1% increase in Service member (i.e., Army, Air Force, Navy, Marine Corps) deployment rates was correlated with a 28% increase in military child maltreatment rates, and each 1% increase in rates of Service members who returned from deployment was associated with a 31% increase in child maltreatment rates, while civilian rates did not increase during these periods (Rentz et al., 2007). Among Active Duty Air Force parent perpetrators, overall rates of child maltreatment decreased 13% post-deployment compared to pre-deployment, suggesting that spouses of Air Force members may be responsible for the increase in maltreatment post-deployment (Thomsen et al., 2014). Although Air Force members perpetrated fewer incidents of maltreatment post-deployment compared to pre-deployment, the incidents that they perpetrated were more severe post-deployment; mild child maltreatment incidents decreased while moderate and severe child maltreatment incidents increased significantly post-deployment (Rabenhorst et al., 2015). Comparing types of maltreatment perpetrated by Active Duty Air Force parents from pre- to post-deployment, rates of neglect and physical abuse remained stable, emotional abuse decreased significantly, and sexual abuse increased significantly (Rabenhorst et al., 2015; Thomsen et al., 2014).

Deployment is one military-specific stressor that research suggests may be related to child maltreatment.

Other deployment-related factors (e.g., combat exposure, multiple and extended deployments) can affect military child maltreatment rates as well (Cesur & Sabia, 2016; Taylor et al., 2016). Multiple deployments have been associated with greater child maltreatment rates, with higher rates during the second deployment among Army parents deployed twice (Taylor et al., 2016). Combat exposure and injury during deployment have also been associated with Service members' risk for violent parenting behaviors and increased child injuries and hospital visits related to child maltreatment (Cesur & Sabia, 2016; Hisle-Gorman et al., 2015). Moreover, Service member risk factors for child maltreatment, such as

stress, mental health problems, and substance use have been shown to increase following deployment (Bray et al., 2010; Kline et al., 2010).

The role of military-specific risk and protective factors is important to consider when attempting to better understand military child maltreatment. This understanding is vital for informing the development of future research, new policies, and innovative programs that aim to reduce child maltreatment among military families.

Preventative Interventions for Child Maltreatment

Programs that intervene to prevent child maltreatment or the negative long-term consequences of child maltreatment are known as preventative interventions (MacMillan et al., 2009). Preventative interventions are often differentiated by whether they intervene prior to child maltreatment (i.e., proactive) or after (i.e., reactive). Proactive programs aim to reduce the risk of child maltreatment while reactive programs focus on reducing the risk of reoccurrence or child impairment following child maltreatment (MacLeod & Nelson, 2000). Proactive preventative interventions for child maltreatment include both universal and targeted programs; universal programs aim to prevent child maltreatment by providing an intervention to the general public or a whole population, while targeted programs provide an intervention to parents, children, or families at-risk for child maltreatment (MacLeod & Nelson, 2000; MacMillan et al., 2009). MacMillan and colleagues' (2009) model of child maltreatment prevention suggests that each type of preventative intervention should be offered along a continuum of services, with universal and targeted programs intervening with families that have not experienced maltreatment and programs to prevent reoccurrence and long-term child impairment intervening with families where child maltreatment has already occurred.[1]

Experts have called for a public health system model of child maltreatment programs that targets parents, children, and families across all levels of risk and within a bioecological framework that reaches the many different settings and contexts in which families live.

Consistent with this idea, several experts have called for a public health system model of child maltreatment programs that targets parents, children, and families across all levels of risk and within a bioecological framework that reaches the many different settings and contexts in which families live (Daro, 2016; Herrenkohl, Higgins, Merrick, & Leeb, 2015; Klevens & Whitaker, 2007; Scott et al., 2016). Ideally, a public health system model would enable all community members and institutions to share responsibility for child safety and well-being and to provide support to families in need (Daro, 2016). A public health system model also encourages repeated assessment of risk at multiple points in a family's or child's development (e.g., during pregnancy, at birth, when entering school) and an administrative system to coordinate and provide services and referrals tailored to a family's level of risk (Daro, 2016).

A wide array of preventative intervention program types exist, and there are several differences across programs (e.g., population targeted, duration, intensity, services), which can make it difficult to compare efficacy (Casillas et al., 2016; Howard & Brooks-Gunn, 2009; Reynolds et al., 2009). Despite these differences, there are key factors that research has shown to be important when planning,

[1] The service branches have begun to implement several of these programs but research and evaluation results are not available for inclusion at this time.

implementing, and evaluating preventative intervention programs. For example, when planning a program, factors to consider include qualifications of the providers who will implement the program, services and curricula offered, the population to be targeted, and the intensity and duration of the program (S. Allen, 2007; Casillas et al., 2016; Howard & Brooks-Gunn, 2009; Reynolds et al., 2009). It is vital for providers implementing a program to be well-trained and to receive adequate supervision (Casillas et al., 2016; Howard & Brooks-Gunn, 2009; Reynolds et al., 2009). Research has found that programs using highly-trained providers (e.g., nurses, mental health counselors) are more effective than programs using providers with less training or education (e.g., paraprofessionals; Casillas et al., 2016; Reynolds et al., 2009). In addition, program services must be effectively coordinated and matched to participants' needs to provide the most support to families (S. Allen, 2007; Howard & Brooks-Gunn, 2009; Reynolds et al., 2009; Wilson, 2012). Experts suggest that the intensity and duration of program services may also be important to program effectiveness (Duggan et al., 2007; Reynolds et al., 2009), but research evidence is mixed regarding whether greater program intensity and duration are beneficial (MacLeod & Nelson, 2000).

Program factors important to consider during implementation include participant retention, fidelity of implementation, and cultural adaptation (Allen, 2007; Beasley et al., 2014; Casillas et al., 2016). In order for participants to benefit from programs, high levels of attrition must be avoided (S. Allen, 2007). Programs may be better able to retain participants if they focus on promoting staff member's interpersonal skills and multicultural competence and reducing staff turnover (S. Allen, 2007; Beasley et al., 2014). Evidence-based interventions must also be culturally adapted so that information and services are presented in ways that are relevant to participants (Beasley et al., 2014). Next, checks of program fidelity ensure that staff are correctly and consistently implementing the program in a high-quality manner. Programs that monitor implementation quality, rather than fidelity to content only, resulted in greater efficacy in one review (Casillas et al., 2016). The primary program factor to consider when evaluating a program via research is outcome measurement (Casillas et al., 2016; Howard & Brooks-Gunn, 2009). For preventative interventions that aim to reduce child maltreatment, outcomes are usually related to parenting or child well-being. Unfortunately, very few programs measure outcomes that are direct indicators of child maltreatment rates (e.g., CPS reports, medical visits due to maltreatment injuries, foster care placement), making it difficult to know how programs influence maltreatment rates (Howard & Brooks-Gunn, 2009; MacMillan et al., 2009).

Programs that produce the largest effect sizes tend to utilize highly-qualified staff for implementation, focus on fidelity of implementation, and be developed via research rather than based solely on practice.

Overall, programs that produce the largest effect sizes tend to utilize highly-qualified staff for implementation, focus on fidelity of implementation, and be developed via research rather than based solely on practice (MacLeod & Nelson, 2000; MacMillan et al., 2009). Each of these factors is important to consider when planning, implementing, or evaluating preventative intervention programs. The type of program implemented must also fit the targeted population, setting, and available resources. For instance, while the majority of these programs are generally designed for civilians, some programs are specifically targeted toward military families.

Universal Programs

A universal approach is based on the idea that all parents have concerns and needs and should have access to parenting resources (Daro, 2016). The broad scope of universal programs confers several benefits, such as reaching a larger number of families and involving less risk for stigmatization (Altafim & Linhares, 2016). In addition, universal programs attempt to strengthen families prior to child maltreatment or related problems, potentially avoiding harm to children and families and reducing the societal costs of child maltreatment (Altafim & Linhares, 2016). Universal programs for child maltreatment can be implemented in several settings (e.g., neighborhoods or communities, schools, primary care clinics) in order to reach a wide range of parents and children.

Community-Based Programs. One of the most commonly used types of universal programs for child maltreatment prevention are community-based programs, which encourage and enable communities to work together to prevent maltreatment and increase child safety (Kimbrough-Melton & Campbell, 2008). A frequent criticism of current child welfare systems is that they are primarily punitive systems that intervene when parents "fail" rather than provide families with the support or resources needed to prevent child maltreatment (Daro, 2016; Kimbrough-Melton & Campbell, 2008; McDonell, Ben-Arieh, & Melton, 2015; D. Scott et al., 2016). Community-based approaches, on the other hand, encourage and enable families, community members, and community institutions to provide support to all families in the community (Kimbrough-Melton & Campbell, 2008). A strength of these programs is that they foster a sense of shared responsibility for child safety and well-being (Daro, 2016; McLeigh, McDonell, & Melton, 2015). In addition, community-based programs often work to improve systemic risk factors for child maltreatment. Since families in neighborhoods with high levels of crime, poverty, unemployment, and housing insecurity are at increased risk for experiencing child maltreatment, community-based programs that improve neighborhood conditions may also decrease the risk of child maltreatment (Molnar, Goerge, et al., 2016; Molnar, Beatriz, & Beardslee, 2016).

Community-based approaches encourage and enable families, community members, and community institutions to provide support to all families in the community.

One such program, Strong Communities for Children (SCC), is a comprehensive community initiative aimed at preventing child maltreatment and providing neighborhoods with a wide array of supports and services (Kimbrough-Melton & Campbell, 2008; Molnar, Beatriz, et al., 2016). Services can include coordinating activities that help families build and strengthen relationships, organizing community volunteers or institutions to provide physical and emotional resources to families in need, and providing opportunities for families to engage in the community (Kimbrough-Melton & Melton, 2015; McDonell et al., 2015). Research suggests that the SCC program effectively increases families' social support, children's safety, and communities' collective efficacy and improves parenting skills and behaviors (McDonell et al., 2015; McLeigh et al., 2015). Importantly, evaluations comparing families in communities that did and did not receive the SCC program found that families in the program had fewer substantiated CPS reports and fewer child injuries indicative of child maltreatment (McDonell et al., 2015; McLeigh et al., 2015).

Another community-based program, Stop It Now!, is a nationally available hotline that aims to prevent child sexual abuse (Molnar, Beatriz, et al., 2016). Individuals can call into the hotline anonymously to receive support if they are concerned that they or someone else may perpetrate child sexual abuse

(Molnar, Beatriz, et al., 2016; Pollard, 2006). While there has been little research on the effectiveness of Stop It Now!, one study found significant decreases in reports of child sexual abuse in the years following implementation of the hotline when combined with state-wide education initiatives (Schober, Fawcett, Thigpen, Curtis, & Wright, 2011).

The Positive Parenting Program, also known as Triple P, is one of the most well-researched preventative interventions for child maltreatment and related risk factors (Asawa, Hansen, & Flood, 2008; Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009). Triple P aims to promote safe environments and support positive parenting styles and behaviors (e.g., warmth, engagement) in order to prevent child maltreatment and foster child well-being (Altafim & Linhares, 2016; Molnar, Beatriz, et al., 2016). Although Triple P includes universal components, such as media awareness campaigns directed toward all parents, it is not exclusively a universal, community-based program as it includes targeted and reactive preventative interventions as well. The program has a total of five levels of preventative interventions, and increasing intensity and specialization of support are provided based on families' needs (Asawa et al., 2008; Harden, Buhler, & Parra, 2016; Pickering & Sanders, 2016). In a population level evaluation, the U.S. Triple P System Population Trial showed that families in counties provided with the program had lower rates of CPS reports, out-of-home foster care placements, and medical injuries related to child maltreatment compared to families in counties that did not receive the program (Prinz et al., 2009).

It is important to note that community-based programs can be difficult to implement and maintain. Challenges for these programs may include difficulty maintaining support across several contributors (e.g., parents, healthcare workers, school personnel, child welfare staff), obtaining funding to sustain a large program, engaging the community in on-going activities, ensuring fidelity of implementation over time, and reducing stigma surrounding child maltreatment preventative intervention activities (Molnar, Beatriz, et al., 2016; Pickering & Sanders, 2016). Despite this, community-based programs have several benefits and have been shown to be generally effective in reducing child maltreatment through a variety of different programs and activities.

School-Based Programs. The majority of school-based universal preventative interventions for child maltreatment aim to prevent child sexual abuse specifically (Asawa et al., 2008; Brassard & Fiorvanti, 2015; Wood & Archbold, 2015). These programs often utilize multiple teaching methods (e.g., lecture, workbook activities, role play, rehearsal, graphic information) to educate children about how to recognize, respond to, and report child sexual abuse (Morris et al., 2017; Wood & Archbold, 2015). In addition to school-based programs that aim to reduce child sexual abuse victimization, there is increasing interest in programs that aim to reduce perpetration of child sexual abuse by adolescents. Given that a sizeable minority of child sexual abuse incidents are perpetrated by adolescents (estimated to be approximately 35%), researchers have begun to advocate for and develop school-based programs that aim to prevent adolescents from perpetrating sexual abuse with younger children (Letourneau, Schaeffer, Bradshaw, & Feder, 2017); however, these programs have yet to be evaluated.

The majority of school-based universal preventative interventions for child maltreatment aim to prevent child sexual abuse specifically.

The current research regarding efficacy of school-based child sexual abuse programs suggests that programs effectively increase children's knowledge about sexual abuse and how to respond to sexual abuse (Asawa et al., 2008; Brassard & Fiorvanti, 2015). For instance, the Safe@Last program teaches

elementary school students to differentiate between safe and unsafe people and situations, to practice safety when home alone or using the internet, and to clearly disclose sexual abuse. In a randomized trial of 14 schools implementing the Safe@Last program, children completing the program had significantly more knowledge about child sexual abuse than children who did not complete the program (Morris et al., 2017). Similarly, the Red Flag, Green Flag People (RFGFP) program has been used in all 50 states to teach children about good and bad touches, reporting, and other child sexual abuse topics. In one study, students participating in the RFGFP program gained knowledge about these topics and 90% retained the information up to three months later (Wood & Archbold, 2015). Despite these promising results, little research has examined the impact of these programs on actual rates of child sexual abuse (Asawa et al., 2008), and further research is needed.

Universal child maltreatment preventative interventions delivered in primary care settings show promise for reducing child maltreatment-related family risk factors and are often low-cost and easy to implement.

Primary Care Programs. Universal child maltreatment preventative intervention programs can reach a large population of parents and children through primary care clinics. For instance, the Play Nicely program teaches parents about appropriate child discipline and the consequences of using different types of discipline via an educational video prior to their child's primary care appointment (Chavis et al., 2013). Parents who viewed the Play Nicely program video reported being more likely to use positive parenting strategies (e.g., redirecting, explaining) and less likely to spank their children in the future. They also reported viewing physical discipline more negatively than parents who did not see the video (Chavis et al., 2013; Scholer, Hamilton, Johnson, & Scott, 2010).

Another universal primary care preventative intervention, the Safe Environment for Every Kid (SEEK) program, has three main components: a brief screening questionnaire to identify family risk factors (e.g., mental health concerns, intimate partner violence, substance abuse), training to teach primary care providers to recognize and assist families with child maltreatment risk factors, and a team of social workers to address family problems and provide resources (Dubowitz, 2014; Dubowitz, Lane, et al., 2011; Dubowitz, Feigelman, Lane, & Kim, 2009; Harden et al., 2016). Physicians participating in the SEEK model are more likely to address family problems during primary care visits and feel more comfortable and confident addressing these issues (Dubowitz, Lane, et al., 2011). In a study of families with children age five years or younger, families who received the SEEK program, compared to usual treatment, were 1.5 times less likely to be reported to CPS, less likely to have medical reports suggesting neglect, and less likely to self-report severe physical assault of children within the three to four years of program participation (Dubowitz et al., 2009). Overall, universal child maltreatment preventative interventions delivered in primary care settings show promise for reducing child maltreatment-related family risk factors and are often low-cost and easy to implement (Chavis et al., 2013; Dubowitz et al., 2009).

Targeted Programs

Targeted programs focus on providing help to families that need it most, and support can be more intensive and tailored to the participants compared to universal programs (National Research Council & Institute of Medicine, 2009). On the other hand, large-scale screening can be costly for targeted programs and may not effectively identify the highest-risk families. Even when high-risk families are identified, they may refuse to participate or worry about stigmatization due to participation (National Research Council & Institute of Medicine, 2009). Despite these difficulties, targeted programs for child

maltreatment are commonly used and can be implemented via home visiting, parent education, and early childhood care, among other methods (MacLeod & Nelson, 2000).

Home Visiting Programs. The most well-researched type of targeted preventative interventions are home visiting programs, which are endorsed by several boards and task forces focused on reducing child maltreatment and improving child well-being (Asawa et al., 2008; Avellar & Supplee, 2013; Duggan et al., 2007; MacLeod & Nelson, 2000). These programs typically identify at-risk parents at a very early stage in their child's development (e.g., prenatally, at birth) and arrange for a professional or paraprofessional to routinely visit the family at home and provide parent education, parenting skills training, referrals, emotional support, and other resources (Avellar & Supplee, 2013; Casillas et al., 2016; Howard & Brooks-Gunn, 2009). Home visiting programs eliminate problems of transportation and attendance that other programs may face, and they can provide a wide range of resources in a cost-effective manner (Asawa et al., 2008).

Families in the Nurse-Family Partnership program have fewer child emergency room or healthcare visits related to maltreatment injuries and fewer suspected or substantiated CPS reports for up to 15 years following program participation.

Research on home visiting programs suggests that the Nurse-Family Partnership (NFP) is the most effective program (Casillas et al., 2016; Gonzalez & MacMillan, 2008; Harden et al., 2016; Krugman, Lane, & Walsh, 2007; Zielinski, Eckenrode, & Olds, 2009). In the NFP program, nurses provide home visits at least monthly to first-time, at-risk mothers (e.g., low-income, single, adolescent) until their child reaches two years of age (Gonzalez & MacMillan, 2008; Harden et al., 2016). Services include child assessments, transportation to child medical check-ups, and parent information regarding healthy pregnancy, parent well-being, and child development (Asawa et al., 2008; Howard & Brooks-Gunn, 2009; Zielinski et al., 2009). Families who participate in the NFP program have reduced risk factors for child maltreatment (e.g., family welfare use, harsh parenting) and increased parent and child well-being (e.g., mothers breastfeeding, child language development; Asawa et al., 2008; Avellar & Supplee, 2013). Importantly, families in the NFP program have fewer child emergency room or healthcare visits related to maltreatment injuries and fewer suspected or substantiated CPS reports for up to 15 years following program participation (Avellar & Supplee, 2013; Gonzalez & MacMillan, 2008; Howard & Brooks-Gunn, 2009; Olds et al., 1997; Zielinski et al., 2009).

Healthy Families America (HFA) is another widely used home visiting program, which has been implemented in over 40 states (Asawa et al., 2008; Gonzalez & MacMillan, 2008). The HFA program was developed based on Hawaii's Healthy Start program, and it provides home visits from paraprofessionals for first-time, high-risk parents up until the child is five years of age (Harden et al., 2016; Howard & Brooks-Gunn, 2009). These visits promote safe environments, teach parenting information and skills, screen children for developmental delays, and provide community referrals (Asawa et al., 2008; Gonzalez & MacMillan, 2008; Howard & Brooks-Gunn, 2009). Research suggests that the HFA program reduces child maltreatment risk factors (e.g., harsh or aggressive parenting) and improves child well-being (e.g., healthcare access, birth weight, cognitive development, internalizing and externalizing behaviors; Asawa et al., 2008; Avellar & Supplee, 2013; Peacock, Konrad, Watson, Nickel, & Muhajarine, 2013). However, results regarding the efficacy of the HFA program in reducing child maltreatment have been mixed, with the majority of studies finding no reduction in child maltreatment rates (Casillas et al., 2016; Gonzalez & MacMillan, 2008; Howard & Brooks-Gunn, 2009; Peacock et al., 2013). It is possible

that other participant factors, such as maternal age or mental health status or paternal involvement, may influence whether the HFA program is effective in reducing child maltreatment (Peacock et al., 2013; Shapiro, Krysik, & Pennar, 2011).

The Child and Family Interagency, Resource, Support, and Training (Child FIRST) program provides comprehensive care, including home visits, to families at risk for experiencing child maltreatment (Avellar & Supplee, 2013; Lowell, Carter, Godoy, Paulicin, & Briggs-Gowan, 2011). The Child FIRST program's home visits can continue until children are six years of age. The program aims to build a positive parent-child relationship and provide access to resources such as early childhood education, housing, and treatment for parent mental health problems. In a randomized controlled trial of primarily low-income families with children under three years of age, families accessed significantly more services and felt that more of their needs were met, children had better language development and fewer externalizing behaviors, and parents had less stress and depression than families not enrolled in the program across the course of a year. In addition, families who participated in the Child FIRST program had significantly lower rates of CPS involvement three years after the program ended (Avellar & Supplee, 2013; Lowell et al., 2011).

While many other home visiting programs exist (e.g., Early Intervention Program for Adolescent Mothers [EIP], Family Check-Up, Healthy Steps, Home Instructions for Parents of Preschool Youngsters [HIPPY], Play and Learning Strategies [PALS]), few studies have examined the effects on child maltreatment outcomes; for those that have, the majority of programs have not been found to significantly reduce child maltreatment (Avellar & Supplee, 2013; Casillas et al., 2016; Gonzalez & MacMillan, 2008; Krugman et al., 2007; Peacock et al., 2013). Despite this lack of effect on child maltreatment rates, these programs may result in several positive effects on parenting behaviors, child maltreatment risk factors, and other parent and child well-being factors (Avellar & Supplee, 2013; Casillas et al., 2016). Overall, home visiting programs may be a promising avenue for reducing child maltreatment; however, additional research is needed regarding factors that may influence program efficacy (Avellar & Supplee, 2013).

Programs that provide childcare and education in early childhood are much less common than other types of targeted preventative interventions, but research regarding the effects of these programs on child maltreatment is promising.

Early Childhood Care and Education Programs. Programs that provide childcare and education in early childhood are much less common than other types of targeted preventative interventions, but research regarding the effects of these programs on child maltreatment is promising (Mersky, Topitzes, & Reynolds, 2011; Reynolds & Robertson, 2003). Programs often have not only center-based components, but also home visiting components (Mersky et al., 2011; Reynolds & Robertson, 2003). One example is the Chicago Child-Parent Center (CPC) preschool program, which offers early childhood education to low-income children. The CPC program includes a wide array of activities (e.g., parent skills training, health and nutrition services, child development screenings, speech therapy) provided in preschool centers, as well as home-based activities (Reynolds & Robertson, 2003). Children are eligible for services starting at three years of age, and services can continue through third grade (Reynolds & Robertson, 2003). Several studies suggest the program effectively reduces child maltreatment rates and out-of-home placement rates (Mersky et al., 2011; Reynolds & Robertson, 2003; Reynolds, Temple, White, Ou, & Robertson, 2011). In fact, children who participated in one evaluation of the CPC program were 5.5% less likely to

experience a child maltreatment incident by 17 years of age than their non-participating counterparts (Reynolds & Robertson, 2003).

The Early Head Start (EHS) program is a large, federally-funded early childhood care and education provider for low-income families (Harden et al., 2016; Howard & Brooks-Gunn, 2009). The program offers several different types of services through both childcare centers and home-based activities in order to improve parent-child relationships, reduce physical discipline, and promote parent and child health (Harden et al., 2016; Howard & Brooks-Gunn, 2009). Research suggests that the EHS program benefits family functioning and child well-being, including improving cognitive skills and increasing positive parenting (Avellar & Supplee, 2013; Ayoub et al., 2009; Ispa et al., 2013). In addition, children who participate in the EHS program are significantly less likely to experience physical punishment, suspected or substantiated CPS reports, or out-of-home placements (Green et al., 2014; Harden et al., 2016). Overall, results suggest early childhood care and education programs may be effective in reducing child maltreatment, especially when combined with home visiting programs.

Parent Education Programs. Many preventative intervention programs have parent education components, and parent education is considered one of the most important ways to prevent child maltreatment (Barth, 2009). Programs with parent education as their primary focus are often short and group-based, aiming to improve parent-child relationships and teach parents about child development, effective parenting practices and skills, and non-violent discipline strategies (Altafim & Linhares, 2016). Parent education programs are typically cost-effective and teach specific parenting information and skills targeted toward participants' needs; however a downside to parent education programs is that they sometimes have difficulty obtaining high levels of attendance and engagement (Begle & Dumas, 2011). Nonetheless, reviews of parent education programs suggest that they are successful in reducing child maltreatment rates, as well as risk factors related to child maltreatment (Chen & Chan, 2016; Desai, Reece, & Shakespeare-Pellington, 2017).

One well-researched parent education program is the Adults and Children Together-Raising Safe Kids (ACT-RSK) program. The ACT-RSK program has an eight-session group format for young, at-risk parents (Knox & Burkhart, 2014; B. Porter & Howe, 2008). The program teaches effective, non-violent parenting skills and strategies (e.g., anger management, problem-solving) and educates parents about child development, discipline, and other parenting topics (Knox & Burkhart, 2014). Parents who participate in the ACT-RSK program have improved knowledge of child development and violence prevention and use more positive parenting strategies (Altafim & Linhares, 2016; Knox & Burkhart, 2014; B. Porter & Howe, 2008; Portwood, Lambert, Abrams, & Nelson, 2011). Children of parents who participate in the ACT-RSK program also evidence fewer behavioral problems (Altafim & Linhares, 2016; Knox & Burkhart, 2014). While the effects of the ACT-RSK program on child maltreatment rates have not been directly evaluated, parents who participate in the ACT-RSK program report using less aggressive or physical discipline (e.g., spanking, hitting with objects, harsh words) and having more negative attitudes and beliefs toward violence and harsh parenting (Knox & Burkhart, 2014; Knox, Burkhart, & Hunter, 2011; B. Porter & Howe, 2008; Portwood et al., 2011).

The Parenting our Children to Excellence (PACE) program is also a targeted parent education program to improve parent-child relationships and interactions (Begle & Dumas, 2011). The PACE program is offered in eight weekly, group-based sessions for parents of children between three and six years old and has been widely used and translated into both Spanish and French (Begle & Dumas, 2011; Dumas & Lucia, 2012). Parents in the PACE program learn about child behavior, development, and health and parental limits and discipline (Begle & Dumas, 2011; Dumas & Lucia, 2012). In a large sample of at-risk families (e.g., high poverty, low education), parent participation in the program was associated with improved child coping and decreased parent child abuse potential, especially for parents who attended sessions consistently (Begle & Dumas, 2011; Begle, Lopez, Cappa, Dumas, & de Arellano, 2012). More research is needed, particularly about the effects of the PACE program on child maltreatment outcome measures (e.g., CPS reports, injuries related to child maltreatment), but initial research is promising.

A relatively new targeted preventative intervention is the manualized, group-based, eight-session Circle of Security-Parent (COS-P) program (Harden et al., 2016; Horton & Murray, 2015). The program aims to improve attachment among high-risk parents and children, to increase parent sensitivity and empathy to child needs, and ultimately to reduce child maltreatment, although child maltreatment outcomes have yet to be examined (Harden et al., 2016; Horton & Murray, 2015). Preliminary research with infants of non-violent offenders with a history of substance abuse suggests that children of participating mothers have greater attachment security and less disorganized attachment and that mothers show greater sensitivity in response to their infants (Cassidy et al., 2010). Similarly, a study with mothers in substance abuse treatment with children 0-12 years of age showed that parents who participated in the COS-P program used more positive parenting and discipline strategies and had fewer hostile attributions of their child's behavior (Horton & Murray, 2015). In summary, some research has begun to show that parent education programs offer positive outcomes for parent and child well-being, but much more research is needed on the effects of targeted preventative interventions that focus on parent education.

Preventative Interventions for Families Who Experience Child Maltreatment

There are two main types of preventative interventions for families who have experienced child maltreatment. These programs typically focus on preventing reoccurrence of child maltreatment or preventing long-term impairment (e.g., emotional, social, behavioral, developmental) of children who have experienced maltreatment (MacMillan et al., 2009). In addition, some preventative interventions for families that have experienced child maltreatment focus on preventing both recidivism and negative child outcomes by targeting the parent, child, and their social context (Feit, 2015). The following section reviews preventative interventions targeted toward parents, children, and families who have experienced maltreatment.

Research has begun to show that parent education programs offer positive outcomes for parent and child well-being, but much more research is needed on the effects of targeted preventative interventions that focus on parent education.

Programs to Prevent Reoccurrence. Interventions to reduce child maltreatment reoccurrence are typically targeted toward perpetrating parents and aim to teach positive, non-violent parenting, provide necessary resources to enable healthy parenting, and alleviate parent mental health concerns (Chaffin et al., 2004; Chaffin, Hecht, Bard, Silvosky, & Beasley, 2012; Hurlburt, Nguyen, Reid, Webster-Stratton, & Zhang, 2013; K. L. Scott & Crooks, 2007).

Psychotherapy. Psychotherapy for parents who have perpetrated maltreatment can effectively reduce rates of child maltreatment reoccurrence (O'Reilly, Wilkes, Luck, & Jackson, 2010; Solomon & Åsberg, 2012; Solomon, Morgan, Åsberg, & McCord, 2014). For example, among parents required by CPS to engage in interventions to prevent reoccurrence, psychotherapy was more effective for reducing recidivism rates than concrete support or parenting classes (Solomon & Åsberg, 2012). Psychotherapy may work to reduce recidivism rates by addressing caregivers' mental health problems (e.g., depression, substance abuse, low social support), which are risk factors for child maltreatment perpetration (Li et al., 2011; Maguire-Jack & Negash, 2016). In fact, psychotherapy that addresses parents' internalizing problems (e.g., depression, anxiety) is the most effective program type for reducing both child maltreatment reoccurrence and parental distress (Solomon et al., 2014). However, due to the high cost of mental health services, less than one tenth of perpetrating parents receive psychotherapy as a preventative intervention for child maltreatment (Jonson-Reid, Emery, Drake, & Stahlschmidt, 2010).

Home Visiting Programs. While home visiting programs are typically focused on prevention of the occurrence of child maltreatment, some home visiting programs exist to reduce the risk for reoccurrence among families who have already experienced child maltreatment (Avellar & Supplee, 2013; MacMillan et al., 2009). For example, the SafeCare program is a widely-used, evidence-based home visiting program that aims to prevent maltreatment reoccurrence by improving parent-child interactions, increasing parents' knowledge of home safety, and teaching parents about child health. Research has demonstrated that parents participating in the SafeCare program have fewer subsequent CPS reports following the intervention (Chaffin, Hecht, et al., 2012; Silovsky et al., 2011), including parents from diverse cultural backgrounds (e.g., Native American and Latino parents; Chaffin, Bard, Bigfoot, & Maher, 2012; Finno-Velasquez, Fettes, Aarons, & Hurlburt, 2014).

Parent Training. Parent training is another type of preventative intervention often used to reduce child maltreatment reoccurrence, and it is typically offered as an intensive individual or group treatment within a clinic setting (Harden et al., 2016; MacMillan et al., 2009). The Incredible Years is one such group-based program which works to strengthen parent-child bonding, reduce harsh discipline, and promote positive parenting (Hurlburt et al., 2013; MacMillan et al., 2009; Webster-Stratton, 2014). In training sessions, parents watch video scenes that model positive parenting skills and participate in group discussions to share parenting ideas and problem-solve parenting difficulties. The Incredible Years program can also help parents build a social support network and reduce social isolation (Hurlburt et al., 2013; Webster-Stratton, 2014). One study examining the effects of the Incredible Years program on families in Early Head Start found that participating parents with a history of child maltreatment improved their parenting practices and styles to the same levels as participating parents without a history of child maltreatment, despite beginning the program with more negative parenting practices and styles (Hurlburt et al., 2013). Although the effect of the Incredible Years program on child maltreatment recidivism rates has not been directly examined, this research suggests that the program may be useful in preventing the reoccurrence of child maltreatment.

Interventions to reduce child maltreatment reoccurrence typically target perpetrating parents and aim to teach positive, non-violent parenting, provide necessary resources to enable healthy parenting, and alleviate parent mental health concerns.

Another preventative parent training intervention is Parent-Child Interaction Therapy (PCIT), a special kind of parent training program that includes both abusive parents and maltreated children (Chaffin et al., 2004; Thomas & Herschell, 2013). The program is based on attachment and social learning theories, emphasizing the improvement of the parent-child

relationship. In a typical PCIT session, therapists observe the interactions of parents and children through a one-way mirror and provide real-time feedback via audio equipment (e.g., earpiece, headphones, microphones) to coach parents on specific parenting behaviors. Therapists also provide feedback at the end of sessions about skills parents can practice at home, and child behaviors and parenting skills are measured each week to monitor progress (Chaffin et al., 2004; Thomas & Herschell, 2013). The effectiveness of PCIT has been demonstrated in several studies (Chaffin et al., 2004; Thomas & Herschell, 2013; Thomas & Zimmer-Gembeck, 2012). For instance, a randomized trial comparing PCIT to a standard community-based parenting group showed that 850 days after the program, physically abusive parents in PCIT were much less likely to have a report of child maltreatment reoccurrence than parents in the community-based parenting group (19% vs. 49%), suggesting PCIT may be effective in reducing recidivism (Chaffin et al., 2004). However, it is unclear whether the effectiveness of PCIT would extend to other types of child maltreatment (MacMillan et al., 2009).

The Caring Dads program is another example of a parent training program to reduce child maltreatment recidivism, and the program also has a community-based component to support the reduction of child maltreatment community-wide and to engage child maltreatment perpetrators with their community in healthy ways (K. L. Scott & Crooks, 2007; K. L. Scott & Lishak, 2012). The Caring Dads program is designed exclusively for men who have perpetrated child maltreatment or exposed their children to domestic violence. The 17-week program includes interventions to enhance motivation, educate fathers about parenting, improve fathers' understanding of child development, and improve marital relationships (K. L. Scott & Crooks, 2007; K. L. Scott & Lishak, 2012). In one study examining the impact of the Caring Dads program, fathers were less likely to overreact to child misbehavior and reported greater respect and appreciation for their spouses following the program (K. L. Scott & Lishak, 2012). Future research is needed to investigate the long-term effects of the Caring Dads program and to compare the program with other effective preventative interventions. In summary, some preventative interventions meant to reduce child maltreatment reoccurrence have been shown to result in lower rates of recidivism while others have yet to be thoroughly evaluated but show promise in that they effectively reduce risk factors related to child maltreatment among perpetrating parents.

Psychotherapy and foster care placement may have beneficial effects for children who have experienced maltreatment.

Programs to Prevent Negative Child Outcomes. Most preventative intervention programs following the occurrence of child maltreatment have concentrated on reducing the risk for parent recidivism, and relatively little research has been done in regards to reducing negative child outcomes following maltreatment. However, psychotherapy and foster care placement may have beneficial effects for children who have experienced maltreatment (Feit, 2015; MacMillan et al., 2009).

Psychotherapy. Although there is little research on programs to reduce impairment among maltreated children, psychotherapy approaches in this area have progressed markedly in recent years (MacMillan et al., 2009). Within the types of psychotherapy for maltreated children, Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT) is one of the most widely-used and efficacious approaches for children with posttraumatic stress symptoms (B. Allen & Johnson, 2012; Leenarts, Diehle, Doreleijers, Jansma, & Lindauer, 2013; MacMillan et al., 2009). Components of TF-CBT can include relaxation skills, psychoeducation, cognitive restructuring, trauma narrative building, and cognitive coping skills, depending upon the developmental level of the child (B. Allen & Johnson, 2012). Research has shown that TF-CBT effectively reduces child mental health concerns following maltreatment, particularly sexual

abuse, and ongoing research suggests positive long-term effects of TF-CBT on child well-being (Deblinger, Mannarino, Cohen, & Steer, 2006; Leenarts et al., 2013).

School-based play therapy may be another means of providing maltreated children with an intervention to prevent negative child well-being outcomes (Mishna, 2007; Mishna, Morrison, Basarke, & Cook, 2012). One study evaluated the effects of two to three school-based play therapy sessions per week plus a one-hour per week therapist meeting with parents and teachers to discuss progress among severely maltreated children. Results indicated that 18 months of program participation was associated with improved social, emotional, and academic functioning (Mishna et al., 2012). Additional research is needed to replicate these effects and to understand the long-term impacts of school-based play therapy on the well-being of maltreated children.

Foster care. Child welfare experts disagree about whether placing children who have experienced maltreatment in foster care is beneficial, and few high-quality studies have evaluated the effects of foster care on child well-being (Doyle, 2007; MacMillan et al., 2009). Foster care can be beneficial to children's well-being if staying in a dysfunctional home and neighborhood puts a child's physical or mental health at risk and if the foster care workers are well-trained and provide adequate support to foster parents and children (Kessler et al., 2008; MacMillan et al., 2009). However, placing children in foster care can further damage the relationship children have with their parents (Moss et al., 2014) and can result in long-term physical and mental health problems related to peer bullying and other vulnerabilities associated with being in the foster care system (Lutman & Barter, 2016).

Comprehensive programs are based on a bioecological perspective, which suggests that child maltreatment is the result of the interaction of a number of different factors and must be addressed on multiple levels.

In order to mitigate the risks of foster care placement, it is important to provide interventions for foster parents and children that promote child well-being. The Attachment and Biobehavioral Catch-up (ABC) program is an evidence-based intervention designed to build secure attachment between foster parents and children, particularly infants and toddlers (Dozier, Bick, & Bernard, 2011; Dozier, Lindhiem, Lewis, Bick, & Bernard, 2009). The ABC program is a 10-session preventative intervention that trains foster parents to interpret child behaviors and needs, provide nurturing care, manage difficult child behavior, teach children regulatory skills, and practice self-care (Dozier et al., 2011, 2009). Studies suggest that the ABC program is effective in promoting positive outcomes among maltreated children, such as developing trusting relationships between children and foster parents (Dozier et al., 2011, 2009), improving children's self-regulatory abilities (Lewis-Morrarty, Dozier, Bernard, Terracciano, & Moore, 2012), and cultivating positive parenting behaviors among foster parents (Caron, Weston-Lee, Haggerty, & Dozier, 2016). Overall, very few programs that aim to prevent child impairment following maltreatment have been adequately researched, although there has recently been increasing interest in psychotherapy approaches for maltreated children.

Comprehensive Family Programs. Rather than focusing on either preventing child maltreatment reoccurrence or negative child outcomes following maltreatment, some programs combine these goals into a comprehensive model of treatment that targets whole families. Comprehensive programs are based on a bioecological perspective, which suggests that child maltreatment is the result of the interaction of a number of different factors and must be addressed on multiple levels (Feit, 2015). The content and implementation of comprehensive family programs varies based on families' specific needs,

but components often include child behavior management, marital enrichment, parent vocational skills training, and interpersonal skills enhancement (Feit, 2015).

Multisystemic Therapy for Child Abuse and Neglect (MST-CAN) is one example of a comprehensive family preventative intervention program. The MST-CAN program differs from other programs in that the time and location of delivery, as well as frequency of sessions, is based on the client's needs (Swenson & Schaeffer, 2014; Swenson, Schaeffer, Henggeler, Faldowski, & Mayhew, 2010). At the start of the MST-CAN program, goals are determined by interviewing each stakeholder (e.g., parents, children, teachers) and completing a comprehensive assessment of the needs and strengths of the family, family members, and family's environment. Then, the most problematic behaviors (e.g., parent substance abuse, harsh discipline, child externalizing behavior) are addressed first (Swenson & Schaeffer, 2014; Swenson et al., 2010). In a study comparing the effectiveness of the MST-CAN program and a group-based parent training program as preventative interventions for families who had experienced maltreatment, Swenson and colleagues (2010) found that families in both programs showed improvements in parenting skills and reductions in stress and problem behaviors; however, participation in the MST-CAN programwas associated with more positive parent-child relationships. Comprehensive family preventative interventions require further examination, but they may be particularly useful in addressing families with multiple problems in addition to child maltreatment (Feit, 2015; Millett et al., 2016).

A variety of preventative interventions have been developed to help promote resilience and well-being within military families.

Military-Specific Programs

A variety of preventative interventions have been developed to help promote resilience and well-being within military families. Although the majority of programs aim to help families cope with the unique stressors associated with parental deployment, other programs have been targeted toward preventing child maltreatment in particular. Most of the programs are suitable for use as universal or targeted programs to prevent child maltreatment occurrence; however, it is unclear whether programs have been used or would be effective for preventing maltreatment reoccurrence or child impairment after child maltreatment has occurred.

After Deployment: Adaptive Parenting Tools (ADAPT) Program. The ADAPT program is a 14-week group and web-enhanced program adapted from the Parent Management Training-Oregon Model (PMTO) to meet the specific needs of military families during post-deployment readjustment (Gewirtz, Erbes, Polusny, Forgatch, & DeGarmo, 2011). A study examining the acceptability and feasibility of the ADAPT program with National Guard and Reserve families showed that participation was high, with 79% of families attending at least half of the sessions and 55% of families accessing the online tools at least once throughout the course of the program. In addition, satisfaction with the program was high for all 14 sessions, suggesting that ADAPT may be an appropriate program for Service members and their families during the reintegration phase of deployment (Gewirtz et al., 2011). In two studies of previously deployed (primarily National Guard or Reserve) parents, participation in the ADAPT program was associated with greater parenting confidence (Gewirtz, DeGarmo, & Zamir, 2016; Piehler, Ausherbauer, Gewirtz, & Gliske, 2016). In turn, greater parenting confidence was associated with reduced parent suicidal ideation one year after the program (Gewirtz et al., 2016). Among mothers only, greater

parenting confidence was associated with greater peer adjustment among children six months after the program (Piehler et al., 2016), as well as decreased maternal emotion regulation difficulties and posttraumatic stress symptoms up to one year after the program (Gewirtz et al., 2016). The effectiveness of the ADAPT program on child maltreatment outcomes has not yet been evaluated.

In a sample of expecting Army mothers and their spouses, enrollment in the New Parent Support Program effectively reduced families' risk for child maltreatment.

Child Parent Relationship Therapy (CPRT) Training. The CPRT program has been adapted to meet the needs of military families by helping address the unique parental stress factors associated with pre- and post-deployment (Jensen-Hart, Christensen, Dutka, & Leishman, 2012). Only one small scale (n = 7) study has examined the effectiveness of this program with a sample of mostly National Guard spouses and found that participants preferred the longer group format (i.e., ten weeks versus three or five weeks) and expressed positive benefits from engaging in the program (Jensen-Hart et al., 2012).

Families OverComing Under Stress (FOCUS). The FOCUS program is an eight-session, trauma-informed, skills-based, and family-centered preventative intervention program for military families coping with deployment stress (Beardslee et al., 2011; Beardslee et al., 2013; Saltzman et al., 2011). This program focuses on building family resilience by helping parents and children cope with distress. Only one study has assessed the effectiveness of FOCUS on military parent and child outcomes with non-Active Duty and Active Duty U.S. Marine Corps and Navy parents. Results indicated that parents who engaged in FOCUS experienced significant reductions in anxiety, depression, and unhealthy family functioning. In addition, children experienced significant reductions in behavioral and emotional issues, as well as increases in the use of positive coping skills, emotion regulation, and prosocial behaviors (Lester et al., 2012; Saltzman et al., 2011).

New Parent Support Program (NPSP). The New Parent Support Program (NPSP) provides a variety of services to military parents of young children considered at-risk for child maltreatment, including parenting classes and home visits (Schaeffer, Alexander, Bethke, & Kretz, 2005). A study with expecting Air Force families validated the use of the Family Needs Screener and mental health providers' clinical judgment for adequately classifying mothers referred to the NPSP as low or high-risk for child maltreatment (Travis, Walker, et al., 2015). This is important, as high-risk mothers were more likely to subsequently engage in child maltreatment compared to low-risk mothers (Travis, Walker, et al., 2015), and the ability to identify high-risk parents may have implications for the amount and types of services parents enrolled in the NPSP receive. Currently, two studies have assessed the effectiveness of NPSP and found that the program reduces the risk of child maltreatment among military families. First, in a sample of expecting Army mothers and their spouses, enrollment in the NPSP effectively reduced families' risk for child maltreatment (Cerny & Inouye, 2001). Second, Active Duty Navy members or their spouses who engaged in either home visiting programs or parenting classes offered through NPSP reported improved parenting and coping skills and increased family quality of life (Kelley, Schwerin, Farrar, & Lane, 2006).

Support to Restore, Repair, and Nurture Growing (STRoNG) Military Families. Another program aimed at strengthening military families and promoting family resilience is the STRoNG Military

Families program (Rosenblum et al., 2015). This brief multi-family group program has been specifically adapted to meet the unique needs of National Guard and Reserve Service members with young children during the reintegration phase of the deployment cycle (Walsh et al., 2014). The STRoNG Military Families program focuses on attachment based-psychoeducation, self-care, parent-child interactions, social support, and connection to community resources (Rosenblum et al., 2015). Preliminary outcome data with National Guard and Reserve members indicate that this program can improve parents' mental health outcomes and parenting skills, as well as children's socioemotional adjustment (Rosenblum et al., 2015).

Zero to Three - Babies on the Homefront. Babies on the Homefront is a free digital app for mobile phones developed in 2015 by the Zero to Three Institute's Military Families Project. The app is intended to help military parents of babies or toddlers (birth to age three) who have experienced or will experience a parental deployment by providing information and tips related to parenting (Peterson & Jacob, 2016). A recent review of the app found that it offers easy-to-use, evidence-based, age-appropriate information to parents and can be effectively used to help educate and guide service providers who are working with military families (Peterson & Jacob, 2016). However, the effectiveness of this app on parent and child outcomes has not yet been evaluated.

In summary, there are a number of preventative interventions specifically designed for military families. Many of these programs focus on reducing deployment-related stress and improving parenting and parent-child interactions. It is possible that they may impact child maltreatment risk; however, more research is needed. In particular, the majority of research on these military-specific programs has been related to feasibility and has not examined effects on outcomes related to rates of child maltreatment (with the exception of NPSP).

To further reduce child maltreatment, it is important to understand the research regarding the effectiveness of preventative interventions and to ensure that the provision (e.g., development, implementation, evaluation) of programs is guided by research evidence.

Recommendations and Conclusions

Child maltreatment is associated with numerous adverse consequences for children and families and is costly to society. Military families, like all families, are at risk for experiencing child maltreatment. However, the DoD has made substantial efforts to reduce child maltreatment (Milner, 2015). In particular, military families are offered numerous preventative intervention programs to reduce child maltreatment and related risk factors. These efforts may help to explain why military maltreatment rates are lower than civilian rates (U.S. Department of Defense, 2017; U.S. Department of Health and Human Services, 2017).

In order to further reduce military child maltreatment, it is important to understand the research regarding the effectiveness of preventative interventions and to ensure that the provision (e.g., development, implementation, evaluation) of programs is guided by research evidence. For example, an understanding of research on risk and protective factors for child maltreatment can inform program providers about which populations to target, identifying parents, children, and families at elevated risk. Similarly, it is important to understand research regarding the effectiveness, costs, and benefits of

different types of preventative intervention programs (e.g., universal, targeted) in order to select a program that effectively addresses an organization's aims. Ultimately, a preventative intervention program must also be compatible with the program context, target population, and available resources. Overall, an understanding of the multiple factors addressed in program effectiveness research is necessary for the provision of high-quality preventative interventions. The research regarding preventative interventions for child maltreatment can inform efforts to further understand and reduce military child maltreatment via research, policies, and programs.

Future research could:

- Continue to examine the effectiveness of preventative interventions developed for military families, particularly those that address military-specific risk factors
- Explore risk and protective factors of child maltreatment, including how known risk and protective factors may interact with one another and with military service to influence risk
- Study the impact of domestic violence prevention and intervention programs on Service members' risk for child maltreatment perpetration
- Investigate innovative preventative interventions to reduce child impairment and negative outcomes after maltreatment (e.g., social support groups, education on non-violent communication)
- Further explore preventative interventions targeted specifically at child neglect, the most common type of military child maltreatment
- Evaluate the effectiveness of well-researched civilian preventative intervention programs among military families
- Examine which types of programs (e.g., proactive, reactive, universal, targeted) and program factors (duration, intensity, content, resources) may be associated with increased efficacy among military families at different levels of risk

Policies could:

- Continue to support research for child maltreatment among military families and the use of research to inform evidence-based preventative intervention provision
- Promote collaboration between families and organizations that address child maltreatment (e.g., FAP, military medical centers, mental health providers, schools) to build a sense of shared community responsibility for child safety
- Endorse systematic, universal assessment of child maltreatment risk in settings that would allow evaluation of large child and parent populations (e.g., medical appointments, schools, childcare centers)
- Encourage the development of a system to ensure families are connected with violence prevention resources and programs at new locations following a permanent change of station
- Recommend conducting child maltreatment risk assessments for any family that has a report of IPV; possible considerations for assessments should be given to families that have a report of substance abuse
- Require all military preventative intervention programs to collect data for evaluating efficacy and informing continuous improvement efforts

Programs could:

- Continue to provide high-quality preventative interventions for child maltreatment, including home visiting, parent education, early childhood care and education, and media-based awareness campaign programs
- Continue to consider the importance of childcare options for parents, such as drop-in or emergency childcare services to reduce caretaker stress and burden
- Educate military families about the risk and protective factors for child maltreatment, including military-specific risk factors
- Promote media campaigns to raise awareness of child maltreatment and reduce the stigma associated with seeking parenting support
- Provide a continuum of child maltreatment preventative interventions to all families, tailoring services to meet families' specific needs
- Ensure that program staff implementing preventative interventions are well-trained professionals with adequate supervision and support
- Identify at-risk parents early in a child's development (e.g., prenatally, at birth) in order to provide preventative interventions before problematic patterns are established
- Teach military parents about child development and healthy interpretations of child behavior to reduce the risk of child maltreatment

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Appendix: In-Depth Analysis of Studies of Military Child Maltreatment

Gewirtz, A. H., DeGarmo, D. S., & Zamir, O. (2016). Effects of a military parenting program on parental distress and suicidal ideation: After Deployment Adaptive Parenting Tools. *Suicide and Life-Threatening Behavior, 46(*S1), S23-S31.	
Sample:	The sample consisted of 336 military families (314 mothers, 294 fathers) who were deployed with the Army National Guard (59%), Army Reserves (30%), and Air National Guard (11%).
Method:	• National Guard and Reserve parents were recruited through presentations at pre-deployment and reintegration events. They were also recruited through mailings and social media. • Eligibility criteria included having a child 5-12 years old and one parent who had deployed to current conflicts since 2001. Fathers were deployed in 96% of families, mothers in 18%, and both in 13% of families. • Parents who agreed to participate completed self-report measures and an in-home assessment of their distress, locus of control, and emotion regulation. After the baseline assessment, 60% of parents were randomized to the After Deployment, Adapting Parenting Tools (ADAPT) condition and 40% to a services-as-usual condition (e.g., online parenting resources). • This study examined different outcomes between parents who participated in ADAPT and those who received services-as-usual.
Key Findings:	• Participants in the ADAPT program improved their locus of control (the extent to which a parent believed that they could control events affecting them), which led to reductions in mothers' and fathers' suicidal ideation at 12 months post-baseline assessment. • Parents' improved locus of control was associated with fewer concurrent difficulties in emotion regulation (one's ability to control how they react within a given context). • Mothers' emotion regulation problems and posttraumatic stress disorder symptoms decreased. • Both mothers and fathers experienced an increase in parenting efficacy over six months.
Limitations:	• The measure used for suicidal ideation was limited in scope, with only one question, so results should be interpreted with care. • The design of the study was cross-sectional, and the directions of the relationships between the locus of control, emotion regulation, and psychological distress are unclear.
Recommendations:	• Future research could examine parenting, locus of control, emotion regulation, and psychological distress longitudinally to better understand how these factors are related over time in military families. • Further research could explore to what extent the ADAPT program teaches parents skills (e.g., emotion regulation) that reduce the likelihood of child maltreatment.
Notes:	• The 12-month post-assessment was completed by 255 (81%) mothers and 226 (76.8%) fathers.

In-Depth Analysis of Studies of Preventative Intervention Programs

Lester, P., Saltzman, W., Woodward, K., Glover, D., Leskin, G., Bursch, … & Beardslee, W. (2012). Evaluation of a family-centered prevention intervention for military children and families facing wartime deployments. *American Journal of Public Health*, *102*(Suppl. 1), S48–S54.	
Sample:	The sample consisted of 488 Marine Corps and Navy families (742 parents and 873 children) across 11 installations. Families were enrolled in the Families OverComing Under Stress (FOCUS) Program over 2 years.
Method:	• Data were gathered from a larger study that evaluated the FOCUS program service and delivery. FOCUS provides military families skills to improve their coping with deployment-related experiences. • Families participated in eight sessions in the FOCUS program. Parent and family sessions were 90 minutes while child sessions lasted 30 to 60 minutes (depending on children's developmental levels). • Parents completed questionnaires about deployment, posttraumatic stress disorder symptoms, emotional distress, and family adjustment. Children completed two questionnaires about their psychological adjustment and coping. FOCUS program staff completed measures of individual family members' global level of functioning (e.g., slight, moderate, or severe impairments).
Key Findings:	• Program evaluation data demonstrated significant improvements (i.e., reductions) in parents' reports of distress and unhealthy family functioning. • There were reductions in children's overall difficulties, increases in positive coping skills, and improvements in prosocial behaviors. • The FOCUS program received high scores from parents regarding overall helpfulness to their family, satisfaction with the program, and willingness to recommend the program to another family.
Limitations:	• There was no control group in this study; therefore, it is not clear that the results can be mostly attributed to the program. • Families could decide where and how frequently they engaged in the eight FOCUS sessions. However, receiving the intervention more or less frequently may have impacted results and there were no analyses to control for the possible impact of the timing of the FOCUS program sessions.
Recommendations:	• Future research could include military families with histories of child maltreatment to examine if FOCUS resilience training can help decrease recidivism rates. • Further research could include both waitlist control and treatment control conditions to compare outcomes from families in those groups with families who completed the FOCUS program.
Notes:	• Although 488 military families participated, pre- and post-intervention outcome data were collected from 331 families.

In-Depth Analysis of Studies of Preventative Intervention Programs

	McDonell, J. R., Ben-Arieh, A., & Melton, G. B. (2015). Strong Communities for Children: Results of a multi-year community-based initiative to protect children from harm. *Child Abuse & Neglect, 41*, 79-96.
Sample:	The sample consisted of civilian families with children 10 years old and younger who were recruited from two metropolitan areas: one area consisted of households within the Strong Communities for Children service area and the other area consisted of households outside of the Strong Communities service area.
Method:	• Strong Communities for Children is a population-level initiative to engage community members in order to develop and implement programs for families of young children. The initiative aims to provide activities that help parents build support networks (e.g., play groups, kid-friendly activities) and facilitate professional services (e.g., chats with family advocates) for families in need. The Strong Communities for Children program does not directly provide interventions to families. • There were two waves of data collection from 2004 to 2007: Wave 1 sample included 232 parents in the Strong Communities service area and 238 parents from the comparison area. Wave 2 sample consisted of 327 parents in the Strong Communities service area and 292 parents from the comparison area. • All parents completed self-reported measures that assessed their perceptions of: social support and healing, neighborhood and their neighbors, neighbors' parenting, parents' own attitudes and beliefs, and parents' self-reported parenting practices. • Within each area, data from social service departments were gathered to determine cases that met criteria for child abuse and neglect as well as child injury data that was suggestive of child maltreatment.
Key Findings:	• Parents' perceptions of social support and healing increased during the study period for families in the Strong Communities service area, but decreased in the comparison area. • There was a slightly greater increase of parents' beliefs that collaborative action may improve their neighborhood among families in the Strong Communities service area than families in the comparison area. • Rates of cases that met criteria for child abuse and neglect increased among all families, but there was a greater increase in the comparison areas. • Rates of child injuries that suggest maltreatment decreased among all families, with the greater decrease among families in the Strong Communities service area across all ages except for children three to four years old.
Limitations:	• Families in each service area were different at Wave 1 and Wave 2. Therefore, no conclusions can be drawn, and limited comparisons can be made, between parents' responses in Wave 1 and Wave 2. • There may have been environmental occurrences in the Strong Communities service areas that did not occur in the comparison service areas, such as a natural disaster, and that would have impacted parents' perceptions of their parenting or neighborhoods.
Recommendations:	• Future research could examine the preventative programming and activities included in the Strong Communities of Children initiative longitudinally with the same families. • Further research could explore to what extent some of the methods from the Strong Communities of Children initiative used to connect families can be applied to military families who reside at installations.
Notes:	• Rates of child maltreatment included incidents of physical abuse, sexual abuse, and neglect.

In-Depth Analysis of Studies of Preventative Intervention Programs

	Morris, M. C., Kouros, C. D., Janecek, K., Freeman, R., Mielock, A., & Garber, J. (2017). Community-level moderators of a school-based childhood sexual assault prevention program. *Child Abuse & Neglect, 63*, 295-306.
Sample:	The sample was comprised of 1,177 elementary school students from 14 public schools who either participated in the Safe@Last Program or were in a waitlist condition.
Method:	• Schools were recruited via program staff and meetings with school officials, administrators, or counselors. In addition, some school representatives contacted the program to participate. • Each grade at the schools was randomly assigned to the intervention or waitlist control condition. • The Safe@Last Program was administered by guidance counselors. Counselors were trained via online training videos. • The Safe@Last Program consists of four, 35-minute weekly sessions over one month. • Before and after the intervention period, the following variables were assessed via a multiple choice measure: knowledge of safe and unsafe people and situations, problem-solving skills, assertiveness skills, and disclosure methods. Students in both the intervention and waitlist conditions were assessed.
Key Findings:	• Post-test scores indicated the intervention group demonstrated significantly higher knowledge of the study variables (safe and unsafe people and situations, problem-solving skills, assertiveness skills, and disclosure methods) than the waitlist group. • Demographic factors (race, gender) did not impact the effect of the intervention on post-test scores. These findings suggest that the positive effects of the intervention were not significantly different for boys and girls or different racial/ethnic groups. • The differences in post-test scores were significantly higher among students in the intervention group compared to the waitlist group except for students in Grade 1. • Effects of the intervention were stronger for students from counties with lower rates of child maltreatment than for students from counties with higher rates.
Limitations:	• There were no data comparing the pre-test scores of students in the intervention and waitlist control groups across demographic factors. Therefore, it is unclear if there were any differences of baseline knowledge between the genders and across different racial/ethnic groups. • The administration of the pre- and post-tests (interview or written format) and the setting (individual or group) were not clarified by the authors. It is also unclear if the knowledge tests were administered to the students in a similar manner for each grade.
Recommendations:	• Future research could deliver this intervention at schools located at military installations to determine if outcome findings are similar with military-connected children. • Further research could explore possible impacts of children's age or grade on the effects of interventions, with a focus on cognitive or developmental variables that may influence children's comprehension of the content.
Notes:	• Students who were randomly assigned in the waitlist condition during the study period received the intervention once the study concluded.

In-Depth Analysis of Studies of Preventative Intervention Programs

	Prinz, R. J., Sanders, M. R., Shapiro, C. J., Whitaker, D. J., Lutzker, J. R. (2009). Population-based prevention of child maltreatment: The U.S. Triple P System population trial. *Prevention Science, 10,* 1-12.
Sample:	The sample was recruited from 18 counties in a southeastern state. Families were eligible if they had a child who was eight years old or younger. Since this was a population-level study and families did not formally enroll in the intervention, the estimated range of the sample size was 8,883 to 13,560 families. There were 649 service providers (e.g., social workers, therapists, and teachers) who delivered the Triple P Prevention to families in the intervention condition.
Method:	• The design of this study included two conditions: service providers in half (nine) of the counties received Triple P Prevention training to deliver to the families they serve, and service providers in the other nine counties delivered services-as-usual. • During the first two years of the study, service providers in the intervention condition received 69 professional training courses on Triple P Prevention. • During the next two years of the study, service providers implemented Triple P Prevention to the families they served. • During the implementation period of Triple P Prevention, there was a media campaign via newspapers, press releases, and radio announcements that alerted families in the nine counties of the prevention program. • After the implementation of the program, follow-up interviews were conducted with the service providers to determine how many families received the Triple P Prevention, and families received surveys about their awareness of Triple P Prevention.
Key Findings:	• After the two years of Triple P Prevention, households in the nine counties from the intervention condition had an increased awareness of Triple P Prevention compared to before the study as well as compared to families in the services-as-usual condition. • After the study period, counties that received Triple P Prevention had lower rates of child maltreatment cases, out-of-home placements of children, and child injuries secondary to child maltreatment compared to the counties that did not receive the intervention.
Limitations:	• Since the 18 counties were in close geographical proximity, families in the services-as-usual condition could have received Triple P Prevention if they received services in a different county, and this was not controlled for in the design of the study. • There were no measures of fidelity of implementation by service providers; therefore, it is unclear how consistent and accurate the delivery of Triple P Prevention was to families.
Recommendations:	• Future research could examine the effectiveness of training helping professionals to widely disseminate this prevention program to military families. • Further research could explore different methods of population-level dissemination of Triple P Prevention to families, especially via online methods (e.g., training modules).
Notes:	• The following characteristics were controlled for between the nine counties that received Triple P Prevention and the nine counties that did not: county size, poverty level, and child abuse level.

In-Depth Analysis of Studies of Preventative Intervention Programs

Swenson, C. C., Schaeffer, c. M., Henggeler, S. W., Faldowski, R., & Mayhew, A. M. (2010). Multisystemic Therapy for Child Abuse and Neglect: A randomized effectiveness trial. *Journal of Family Psychology, 24,* 497-507.	
Sample:	The sample consisted of 86 youth and their custodial parent who were involved in child physical abuse. The sample of youth were primarily African American (69%), female (56%), and had an average age of 13.88 years (SD = 2.07 years). The parent sample was mostly female (65%), single parents (58%), and had an average age of 41.79 years old (SD = 10.49). There were no data provided as to parents' race or ethnicity.
Method:	• Families were referred by the local child protective services (CPS) department. CPS staff delivered the treatments in the intervention and treatment control conditions. • To be included in the study, families had a case of child physical abuse that met CPS criteria, youth were between 10 and 17 years old and still resided in the home, families resided in the specified county, and the case was opened within 90 days of the start of the study. • Parents and youth completed self-report measures that assessed: youth and parent functioning, parenting behavior, social support, and service utilization (e.g., mental health treatment). CPS records were reviewed to determine if there were any new reports of abuse or removal of the child from the home during the study period. • Parents' and youth's self-report data were analyzed to determine if the multisystemic therapy for child abuse and neglect (MST-CAN) improved youth and parent functioning, decreased abusive parenting behavior, and reduced recidivism more than the treatment control group. The treatment control group received a group-based parent training program and referrals to standard services, such as mental health or substance abuse treatment.
Key Findings:	• Across both conditions at post-intervention, parents reported improvement in their social skills and youth reported improvement in their posttraumatic stress disorder and depressive symptoms. • Parents in the MST-CAN condition reported greater decreases in psychiatric symptoms than did parents in the treatment control group, although parents in both conditions reported significant decreases in psychiatric symptoms. • Parents in the MST-CAN group were less likely to have an incident of re-abuse 16 months after the start of the study than parents in the treatment control group; however, this difference was not statistically significant.
Limitations:	• Parents' re-abuse rates were determined by including incidents of abuse to any child in their home, not just the target child. Including abuse towards children not part of the study may limit the ability to draw conclusions between parent and youth outcomes as reported by youth who were included in the study. • Parents and youth were involved in different forms of mental health (outpatient and residential) and substance abuse treatment while participating in this study. Therefore, it is difficult to determine if the treatment effects were due to the intervention.
Recommendations:	• Future research could include parents and youth who were not simultaneously participating in additional treatment to better determine the study's intervention effects. • Further research could explore the effectiveness of MST-CAN at reducing recidivism with military families who have a history of child maltreatment.

In-Depth Analysis of Studies of Preventative Intervention Programs

Travis, W. J., Walker, M. H., Besetsny, L. K., McCarthy, R. J., Coley., S. L., Rabenhorst, M. M., & Milner, J. S. (2015). Identifying high-needs families in the U.S. Air Force New Parent Support Program. *Military Behavioral Health, 3*(1), 74-82.	
Sample:	The sample consisted of 112,478 new or expectant mothers (68% civilian) who resided on U.S. Air Force installations worldwide.
Method:	• New and expectant mothers were referred by medical personnel, FAP staff, a Commander, or another source (including self-referrals) to participate in the U.S. Air Force New Parent Support Program (NPSP) from October 2002 to January 2013. • Once enrolled in NPSP, mothers' risk factors associated with child maltreatment were assessed via the Family Needs Screener, a 58-item self-report measure. Mothers were classified as either low-needs or high-needs based on their responses. • Mothers also participated in home visits where NPSP staff conducted clinical assessments of the family's needs (high-needs or low-needs). These assessments were compared against the responses on the Family Needs Screener and, when discrepant, needs classification based on staff's clinical assessments were used. • Data on child maltreatment incidents (n = 24,999) were gathered from the U.S. Air Force Family Advocacy System of Records (FASOR). • Mothers' initial risk of child maltreatment was examined as a predictor for subsequent founded maltreatment incidents.
Key Findings:	• Among the sample, 1,107 mothers who completed the Family Needs Screener had subsequent founded maltreatment incidents. • Among low-needs mothers, 523 (0.6% of the sample) had a founded maltreatment incident after the assessment, while among high-needs mothers, 584 (2% of the sample) had a subsequent founded maltreatment incident. • When NPSP staff's clinical assessments differed from that of the screener, changes in classifications from low-needs to high-needs improved the prediction of subsequent maltreatment. However, changes in classification needs from high-needs to low-needs did not impact prediction of maltreatment. • The odds of a maltreatment incident by high-needs mothers was significantly greater than low-needs mothers for physical abuse, emotional abuse, and neglect (but not sexual abuse).
Limitations:	• There was limited information about what comprised the NPSP staff's home visits, which limits the ability to understand the nature of any similarities and differences between the screeners and the decisions that were based on the home visits. • No data were presented about differences in maltreatment incidents between mothers who were referred through obstetric-related services and those through other sources.
Recommendations:	• Future research could examine the components of the clinical assessments by the NPSP staff to better understand how they determine high-needs and low-needs mothers. • Further research should gather data about high-needs and low-needs based on the Family Needs Screener from military fathers to analyze the predictive value of the screener in that population.
Notes:	• Among child maltreatment offenders, 1.4% were enlisted Service members and 0.5% were officers.

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