Mindfulness: Applications to Military Families

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Military REACH, a project of the DoD-USDA Partnership for Military Families, utilizes a multidisciplinary 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

Mindfulness has emerged as an important component in Western medical and helping professions (e.g., Perlman, Salomons, Davidson, & Lutz, 2010; Prazak et al., 2012). Mindfulness helps individuals obtain health and well-being through the practice of mindfulness skills that can lead to stress reduction, emotion regulation, and response flexibility (Davis & Hayes, 2011). As mindfulness practices have been incorporated into Western mental and behavioral health interventions, two approaches have emerged: (1) mindfulness-informed interventions, which include techniques such as self-awareness, acceptance, and reflection that are loosely based on mindfulness meditation; and (2) mindfulness-based interventions, which incorporate training in meditation practices that are central to achieving positive outcomes. Given the variety of mindfulness interventions currently available, a better understanding of the effectiveness of these interventions across different situations, such as parenting and domestic violence, and with different populations, such as Service members and their families, is needed. Further, a discussion on how to apply mindfulness interventions within military families and their unique contexts is also warranted.

To gain a better understanding of the research on mindfulness interventions on a variety of conditions and with different samples, a comprehensive review of empirical articles, literature reviews, research reports, book chapters, and websites was conducted using databases such as PsychINFO, Google Scholar, PubMed, and Web of Science. A variety of search terms were utilized, including mindfulness, treatment, prevention, interventions, military, parenting, domestic violence, child maltreatment, resilience, counselors, professionals, and theory as well as various physical and mental health conditions (e.g., posttraumatic stress disorder, depression, suicide, substance abuse, and pain). With a focus on research that was published since 2007, more than 3,000 resources (articles, book chapters, etc.) were identified and reviewed in the writing of this report.

Mindfulness interventions have been shown to be effective at reducing anxiety (e.g., Stephenson, Simpson, Martinez, & Kearney, 2017), stress (e.g., Stanley, Schaldach, Kiyonaga, & Jha, 2011), depression (e.g., Dimidjian et al., 2016), smoking cessation (e.g., Vidrine et al., 2016), and substance abuse (e.g., Garland, Roberts-Lewis, Tronnier, Graves, & Kelley, 2016). Mindfulness interventions have also helped adults and children improve their interpersonal relationships (e.g., Parent et al., 2014), social skills (e.g., Beauchemin, Hutchins, & Patterson, 2008), and general well-being (e.g., Klatt, Buckworth, & Malarkey, 2009). As a result, the first goal of this report is to provide a comprehensive review of the literature regarding the ways in which mindfulness interventions have been successfully implemented to treat a variety of concerns and help individuals and families improve upon their functioning. Although there are numerous mindfulness studies on Veterans (e.g., Wahbeh, Goodrich, Goy, & Oken, 2016; Walser et al., 2015) and on civilian families (e.g., K. Campbell, Thoburn, & Leanard, 2017; Ferraioli & Harris, 2013), there are fewer studies on how effective mindfulness practices are in military families. Although military and civilian families encounter similar stressors and have similar desires for the health and well-being of their families, Service members and their significant others raise their families in unique contexts (e.g., deployments, multiple relocations) that can impact how their families function. Because mindfulness interventions can be integrated into helping professionals’ services in their work with military families, a second goal of this paper is to review specific mindfulness techniques and skills that these professionals could use.
The findings in this report suggest that helping professionals can consider four main factors when deciding how to integrate mindfulness interventions or individual mindfulness techniques in their work with military families: (1) which areas of functioning are the target of the intervention (e.g., parenting, relationships); (2) who are the recipients of the intervention (e.g., couples, children); (3) where will the interventions be delivered (e.g., youth programs, schools, home); and (4) how much and how often are the mindfulness techniques and skills being taught and practiced. Mindfulness skills have the potential to help military families reduce stress, increase well-being, and strengthen resilience. As such, it is important for professionals who work with military families to consider ways they can incorporate mindfulness skills into their services, and to continue to encourage future research, programs, and policies on the effectiveness of mindfulness interventions with military families.
Mindfulness: Applications to Military Families

Mindfulness is a multi-faceted concept that has been an integral part of reaching optimal health and wellness for thousands of years (Kabat-Zinn, 2003b). As it has evolved, mindfulness has been primarily conceptualized as a process (although, it can also be described as an outcome, as in mindful awareness) that allows for a healthier way of being (Shapiro & Carlson, 2017). Although mindfulness was originally developed within Buddhist traditions and has been used to achieve well-being by spiritual clergy and practitioners for many years, in recent decades, it has become more integrated into Western secular medical and helping professions (e.g., nursing, counseling, and social work) to support individuals as they improve their physical, mental, and social functioning (e.g., Arch et al., 2013; Coatsworth et al., 2015). As military families encounter various stressful situations, there is potential for mindfulness interventions to have a positive impact on how Service members and their families manage psychological symptoms, stress, health concerns, and interpersonal relationships. Moreover, knowledge of and skills to administer mindfulness interventions may assist helping professionals (e.g., family life counselors) to deliver services to military families that reinforce resilience by teaching stress reduction and emotion regulation.

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Mindfulness: Definition and Theory

As originally developed, mindfulness is achieved through meditation, which involves intense concentration to achieve self-transformation through a spiritual path (Rau & Williams, 2016). However, many contemporary definitions propose that individuals can achieve mindfulness not only through meditation, but also through other practices such as yoga or relaxation (e.g., Hayes & Shenk, 2004); also, contemporary definitions propose that mindfulness is closely aligned with self-control and compassion (Brown, Ryan, & Creswell, 2007). Although there are variations of contemporary definitions and theories related to mindfulness, common themes include acceptance, awareness, and non-reactivity.
Definition

As mindfulness has been incorporated into Western medical and helping professions, the focus has transitioned from enlightenment and mental clarity to achieving self-regulation of emotions and behaviors (Rau & Williams, 2016). Consequently, as it has evolved, the definition of mindfulness has become more layered, integrating various constructs such as cognitive and affective processing (Rapgay & Bystrisky, 2009). A definition that reflects this growing complexity is “moment-to-moment, non-judgmental awareness, cultivated by paying attention in a specific way, that is, in the present moment, and as non-reactively, as non-judgmentally, and as open-heartedly as possible” (Kabat-Zinn, 2015, p. 1481). The primary way to achieve mindfulness is meditation (Salmon, Sephton, & Dreeben, 2011), and meditation leads to a mental state of tranquility, awareness, and insight (Gunaratana, 2011). Notably, however, mindful meditation is just one subtype of meditation. Generally, individuals can engage in concentrative meditation (focusing on a specific object while excluding distractions) or mindful meditation (a wide-ranging focus, open inclusion of all sensations and external information that arise in the consciousness); most meditative techniques are either predominantly concentrative or mindful (Chiesa, 2013), and mindful meditation, not concentrative meditation, is most closely associated with the concept of mindfulness.

To explain the process of mindful meditation, Shapiro and colleagues (2006; 2017) developed a theoretical model which involves three overlapping processes: intention, attention, and attitude (see Figure 1). Intention refers to reflection about why individuals practice mindfulness as a way for them to understand their motivations and aspirations. Attention is the focus on the moment-to-moment experiences while attitude refers to the style or approach individuals use (e.g., open, accepting, and/or caring) as they practice mindful meditation (Shapiro, Carlson, Astin, & Freedman, 2006; Shapiro & Jazaieri, 2015). Intention, attention, and attitude are not viewed as separate stages, and it is proposed that these processes occur simultaneously to form the singular process of mindfulness: intentionally and nonjudgmentally attending moment by moment.

The phrase “trait mindfulness” is commonly used. Trait mindfulness refers to individuals who exhibit above-average characteristics of mindfulness without formal training (Lindsay & Creswell, 2017; Rau & Williams, 2016). Whether conceptualized as a dispositional trait or developed through training, the three processes that constitute mindfulness are the basis for theories used to explain how individuals exhibit change.
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**Figure 1.** Three processes involved in the practice of mindfulness (Shapiro, Carlson, Astin & Freedman, 2006).

**Theory**

Theoretically, mindfulness (i.e., the process of intention, attention, and attitude) is the precursor to reperceiving (i.e., shifts in perspective), which directly leads to positive changes and outcomes in individuals' lives (see Figure 2). Reperceiving occurs when individuals are able to separate themselves from the content of their thoughts and view their moment-to-moment experiences with greater objectivity and, subsequently, more clarity (Shapiro et al., 2006). When individuals gain more insight through objectivity and clarity, they are able to act in a way that leads to improved outcomes in their lives. There are limited findings to support this theory. For example, although mindfulness (defined as intention, attention, and attitude) and reperceiving improved after participants completed a mindfulness-based stress reduction intervention (e.g., Carmody, Baer, Lykins, & Olendzki, 2009), based on outcomes assessment measures, the concepts of mindfulness and reperceiving were highly correlated. As a result, further research is needed to ensure mindfulness and reperceiving are truly distinct concepts that can be measured and tested empirically.

**Figure 2.** How mindfulness practice leads to change (Shapiro, Carlson, Astin & Freedman, 2006).

Since mindfulness practice is based on monitoring or observing one’s own internal (e.g., thoughts) and external (e.g., relationships) experiences, it differs from other theories of awareness (e.g., reflective self-consciousness and integrative awareness) that focus on evaluation or control. The positive changes and outcomes that are a result of mindfulness practice include improved emotion regulation and response flexibility as well as decreased reactivity and impulsivity (Davis & Hayes, 2011). To achieve these positive outcomes, the goals of mindfulness are for individuals to observe without evaluating oneself or the
environment and to accept the present without attempting to control it (Brown et al., 2007). Using these goals as a basis, mindfulness has been incorporated into interventions that aim to improve individuals’ health and well-being.

## Mindfulness Interventions

As originally developed within the Buddhist tradition, mindfulness is reached through deep meditation where individuals train their minds to develop an intimate awareness of their experiences. Consistent with this tradition, meditation is the vehicle by which individuals learn to accept their experiences as they are and relate to them in a non-judgmental way. Mindfulness, which was developed within Buddhist traditions, has been used to achieve well-being by spiritual clergy and practitioners for many years. More recently, it has become integrated into Western secular medical and helping professions (e.g., nursing, counseling, and social work) to support individuals as they improve their physical, mental, and social functioning (e.g., Arch et al., 2013; Coatsworth et al., 2015). Individuals who are able to accept their experiences without reacting, judging, or changing them will significantly reduce their suffering (Follette, Palm, & Pearson, 2006; Rapgay & Bystrisky, 2009; Shapiro & Carlson, 2017). As mindfulness has evolved, it has been adapted for use by and with individuals outside of the Buddhist tradition (e.g., Anderson & Guthery, 2015). Through this adaptation, teaching and engaging in formal mindful meditation is no longer the primary focus; there is more of a focus on relaxation, observation of thoughts and feelings, and deliberate and purposeful reactions. Examples of these adaptions are mindfulness interventions, which to varying degrees, incorporate two of the active mechanisms of mindfulness meditative practice: the use of attention to monitor individuals’ own moment-to-moment experiences and a mental attitude of acceptance and openness toward perceived experiences (Lindsay & Creswell, 2017). There are two broad categories related to mindfulness interventions: mindfulness-informed and mindfulness-based (see Table 1; Crane et al., 2017).

**Mindfulness-informed** is a phrase that describes a wide-range of interventions that incorporate mindfulness concepts into a multi-component therapeutic approach. These programs include techniques that teach individuals self-awareness, acceptance, reflection, and regulated behavioral responses; however, the techniques used are only loosely based on mindfulness meditation (Crane et al., 2017). Specifically, mindfulness-informed interventions do not focus on teaching or engaging individuals in meditation as part of the treatment.

Examples of mindfulness-informed interventions are Acceptance and Commitment Therapy (ACT; Hayes, Levin, Plumb-Vilardaga, Villatte, & Pistorello, 2013; Hayes, Luoma, Bond, Masuda, & Lillis, 2006) and Dialectical Behavioral Therapy (DBT; Linehan, 2000; Lynch, Trost, Salsman, & Linehan, 2007).

**Mindfulness-based** is a phrase that describes interventions that emphasize the importance of training meditation practices and, as such, meditation is a central component within these interventions. Specifically, outcomes (e.g., improved coping skills, stress reduction) that result from mindfulness-based interventions are believed to be primarily achieved through formal and informal meditation (Crane et
Examples of mindfulness-based interventions include Mindfulness-Based Stress Reduction (Bishop, 2002; Samuelson, Carmody, Kabat-Zinn, & Bratt, 2007), Mindfulness-Based Cognitive Therapy (Felder et al., 2017; Segal, Teasdale, & Williams, 2004), and Mindfulness-Based Supportive Therapy (Beng et al., 2015). Two of the most commonly researched mindfulness-based interventions are described below:

**Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1982)** is a group intervention developed for patients with chronic pain. The intervention combines education (e.g., information about stress physiology) and experiential practice (e.g., each class allows time for patients to engage in mindful meditation). The focus of the intervention is intense mindful meditation to help patients manage the stress, anxiety, and other psychological concerns related to chronic pain management. Traditionally, MBSR is a weekly, two to three-hour class offered for eight weeks. Towards the end of the intervention, often in the sixth week, patients participate in an all-day (about eight hours) intensive mindful meditation session. An important component of MBSR is engaging in mindfulness practice at home for at least 45 minutes a day for six days a week (Baer, 2003).

**Mindfulness-Based Cognitive Therapy (MBCT; Teasdale, Segal, & Williams, 1995)** is a group intervention based on cognitive behavioral therapy (CBT) and MBSR that is designed for individuals with a history of clinical depression. MBCT targets negative thinking patterns that are associated with depression relapse. MBCT has a similar format as MBSR in that each session is about two hours and offered weekly for eight weeks. In addition, patients are encouraged to practice mindful meditation and other mindfulness skills at home. MBCT differs from MBSR in that there is a focus on identifying specific thoughts, especially those related to depressive thinking, in order to create distance from them and relieve suffering. Furthermore, MBCT differs from CBT in that there is not a focus on changing the content of individuals’ thoughts (Teasdale et al., 2000).

### Table 1. Select List of Mindfulness Interventions

<table>
<thead>
<tr>
<th>Mindfulness-Informed</th>
<th>Mindfulness-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance and Commitment Therapy</td>
<td>Mindfulness-Based Cognitive Therapy</td>
</tr>
<tr>
<td>Compassion Focused Therapy</td>
<td>Mindfulness-Based Mind Fitness Training</td>
</tr>
<tr>
<td>Dialectical Behavior Therapy</td>
<td>Mindfulness-Based Relationship Enhancement</td>
</tr>
<tr>
<td>Mindful Self-Compassion</td>
<td>Mindfulness-Based Resilience Training*</td>
</tr>
<tr>
<td>Mindfulness-Enhanced Strengthening Families Program</td>
<td>Mindfulness-Based Stress Reduction</td>
</tr>
<tr>
<td>Mindfulness-Enhanced Supportive Therapy</td>
<td>Mindfulness-Based Supportive Therapy</td>
</tr>
<tr>
<td>Mindfulness Experiential Small Group*</td>
<td></td>
</tr>
</tbody>
</table>

Note: Interventions and preventions denoted with an asterisk (*) were developed for helping professionals self-use.

The distinction between mindfulness-informed and mindfulness-based interventions is important because what differentiates the two types of interventions is the emphasis on mindful meditation: mindfulness-based interventions incorporate more mindful meditation than mindfulness-informed interventions. Moreover, considerations of the distinction between the two types may help professionals decide which mindfulness interventions they are best equipped to implement and best suit the needs of individuals and their families. Theoretical and empirical research studies that focused on mindfulness-based interventions were prioritized for inclusion in this review because mindful
meditation and similar practices are central components in these interventions. For this review, the phrase mindfulness interventions will be used to refer to mindfulness-based interventions because the phrase is more concise. However, it will be clearly indicated when it is specified in a study that a mindfulness-informed intervention was used, as appropriate.

Impact of Mindfulness Interventions

Empirical research on mindfulness-related preventions and interventions has increased in the past 30 years (Khoury, Sharma, Rush, & Fournier, 2015). Much of the research has focused on treatment outcome and effectiveness studies with a primary aim to determine the most successful components of mindfulness interventions. Yet, another objective has included exploring which concerns or issues within different populations demonstrate the most improvements. The following section examines findings within this literature by reviewing mindfulness prevention and intervention studies that address a variety of issues across different populations (e.g., individuals, couples, children, and families).

Physical Health

Although many current studies of mindfulness interventions focus on populations with mental and behavioral diagnoses, early empirical studies of mindfulness interventions were aimed at individuals with chronic medical illnesses (Kabat-Zinn, 1982). Notably, mindfulness-based stress reduction was created with a focus on chronic pain patients to help them better manage their distress related to living with chronic pain and other medical illnesses (Kabat-Zinn, 2003a). There is evidence that mindfulness interventions can improve the physical and emotional quality of life of those suffering from physical ailments (Grossman, Niemann, Schmidt, & Walach, 2004), including chronic pain (Rosenzweig et al., 2010), cancer survivors (Lengacher et al., 2009), and Parkinson’s disease (Cash, Ekouevi, Kilbourn, & Lageman, 2016). For example, a sample of adults with chronic pain who participated in MBSR experienced clinically significant improvements in bodily pain, health-related quality of life, and psychological distress. Furthermore, patients who reported two or more co-occurring pain conditions showed the largest improvement in pain severity (Rosenzweig et al., 2010). Among military samples, there are similar findings regarding a positive association between mindfulness interventions and improved illness management and quality of life (e.g., Kearney et al., 2016). Although most of the military studies have been with Veterans (e.g., Nassif et al., 2016), recent research has found mindfulness interventions are not only feasible with an Active Duty sample, but participants reported less pain intensity, better daily functioning, and more mindfulness techniques (Crisp, Hastings-Tolsma, & Jonscher, 2016).

Anxiety

Much of the research about mindfulness interventions and anxiety focus on civilians with medical diagnoses such as cancer or chronic pain who are also diagnosed with anxiety (e.g., Lengacher et al., 2009; Rosenzweig et al., 2010). However, separate from physical health conditions, mindfulness practices are effective at reducing different types of anxiety (e.g., Bergen-Cico, Possemato, &
Sanghyeon, 2013; Helmes & Ward, 2017), including post-traumatic stress disorder (PTSD; e.g., Banks, Newman, & Saleem, 2015; Stephenson et al., 2017) and stress (e.g., Stanley et al., 2011). Mindfulness skills may yield positive results because individuals must engage in practices that disrupt anxiety and stress symptoms by intentionally and nonjudgmentally attending to thoughts, feelings, and memories, even those that may be distressing (Vujanovic, Niles, & Abrams, 2016). For example, exhibiting intentional (e.g., acting with awareness) and nonjudgmental acceptance has negatively predicted PTSD symptoms among trauma-exposed civilians (Vujanovic, Youngwirth, Johnson, & Zvolensky, 2009), combat-exposed Veterans (Owens, Walter, Chard, & Davis, 2012; Wahbeh, Lu, & Oken, 2011), and police officers (Chopko & Schwartz, 2013). Further, a longitudinal study with recently deployed Army National Guard members found that Soldiers with higher levels of mindfulness at three months post-deployment were less likely to report symptoms of PTSD, anxiety, and distress at 12 months post-deployment (Call, Pitcock, & Pyne, 2015). Given the inverse relationship between mindfulness and anxiety, interventions that increase mindfulness may be effective because individuals are trained on how to decrease their symptoms.

There are few studies on mindfulness interventions and anxiety or stress with military samples and a majority of these studies are with Veterans (e.g., Bhatnagar et al., 2013; Possemato et al., 2016). Overall, these studies suggest positive outcomes secondary to mindfulness interventions for different types of anxiety (Hofmann, Sawyer, Witt, & Oh, 2010). For example, Veterans who completed an eight-week mindfulness-based cognitive therapy (MBCT) group showed significant reductions in PTSD symptoms compared to Veterans who received treatment-as-usual (King et al., 2013). In a different study, a group of Veterans assigned to an MBSR group experienced a significant reduction in PTSD symptoms, while also experiencing increased levels of acceptance and mindfulness post-treatment (Kearney, McDermott, Malte, Martinez, & Simpson, 2012).

Although this evidence supports the effectiveness of mindfulness interventions for anxiety and PTSD symptoms, cognitive behavioral therapy may be equally as effective (Norton, Abbott, Norberg, & Hunt, 2015). Findings suggest that both cognitive behavioral group therapy (CBGT) and mindfulness-based stress reduction (MBSR) were more successful at improving symptoms of anxiety than a waitlist control group (Goldin et al., 2016). In addition, two groups of Veterans experienced improved symptom severity after one group participated in cognitive behavioral therapy (CBT) and the other in MBSR; no significant differences in rate or degree of improvement were found between the two groups. However, CBT was more effective at decreasing symptoms of anxious arousal, whereas MBSR was more effective at reducing worry and diagnoses of comorbid disorders (Arch et al., 2013). In sum, there is evidence that mindfulness preventions and interventions are more effective than treatment-as-usual or control groups for anxiety symptoms and disorders (e.g., Kearney et al., 2012; Kearney, McDermott, Malte, Martinez, & Simpson, 2013; King et al., 2013; Possemato et al., 2016) and may be equally as effective as cognitive-behavioral approaches (e.g., Thurston, Goldin, Heimberg, & Gross, 2017).
Depression and Suicide

Mindfulness-based interventions for depression have consistently shown to be successful at reducing depressive symptoms within a variety of populations, including at-risk adolescents (Bluth, Campo, et al., 2016; Bluth, Gaylord, Campo, Mullarkey, & Hobbs, 2016), college students (Falsafi, 2016; McIndoo, File, Preddy, Clark, & Hopko, 2016), pregnant and postpartum women (Dimidjian et al., 2016), and firefighters (B. W. Smith et al., 2011). While the length, content, and format of the mindfulness programs vary, improvement in depressive symptoms has been shown in as few as four visits. For example, patients at a primary care clinic with moderate to high depressive symptoms who participated in mindfulness-based group visits reported a significant decrease in depressive symptoms compared to baseline over the first four visits (Fuchs et al., 2016). Beyond the success shown at reducing depressive symptoms, mindfulness-based interventions have also been shown to lessen the recurrence of depressive episodes. In a pilot randomized trial, pregnant women with a history of depression were assigned to participate in either an eight-week mindfulness-based cognitive therapy adapted for perinatal depression (MBCT-PD) or treatment-as-usual. Women assigned to the MBCT-PD condition were significantly less likely to report a relapse or recurrence of depressive symptoms through six months postpartum than those assigned to treatment-as-usual (Dimidjian et al., 2016). These results suggest that not only do mindfulness interventions yield positive results, but that the positive outcomes can last months after the intervention is completed.

While there are currently no studies that examine mindfulness interventions with Active Duty Service members with depressive symptoms, mindfulness-based interventions have been shown to be effective at reducing the severity of depressive symptoms in Veteran populations (e.g., Kearney et al., 2012; Walser, Karlin, Trockel, Mazina, & Barr Taylor, 2013). Veterans who participated in an eight-week mindfulness-based stress reduction (MBSR) group reported clinically significant reductions in depressive symptoms that maintained through the four month follow-up. Furthermore, those who initially presented with moderately severe or severe depression showed the greatest rate of improvement (Felleman, Stewart, Simpson, Heppner, & Kearney, 2016).

Limited research has investigated the relationship between mindfulness and suicidality; however, preliminary investigations suggest these interventions may show promise in the reduction of suicidal ideation (Chesin et al., 2016). In a randomized controlled trial of adults with residual depressive symptoms, participation in mindfulness-based cognitive therapy (MBCT) significantly reduced self-reported suicidal ideation relative to a waitlist control group (Forkmann et al., 2014). Similarly, among Veterans, a trial of MBSR treatment was found to significantly reduce suicidal thinking (Serpa, Taylor, & Tillisch, 2014).
Substance Abuse

Mindfulness prevents and interventions have been used, with varying levels of success, in the treatment of substance use disorders. Research in this area has primarily focused on two types of substance abuse: tobacco abuse and alcohol or illicit drug abuse.

Tobacco Use. Studies that examined mindfulness interventions have yielded mixed findings in the effectiveness of this treatment on smoking cessation. Interventions for smoking based on mindfulness-based stress reduction (MBSR) were successful at increasing rates of abstinence from cigarette smoking compared to other treatments, including telephone-based smoking cessation programs (e.g., quit lines) and the American Lung Association’s Freedom from Smoking (FFS) program (Li, Howard, Garland, McGovern, & Lazar, 2017). However, other types of mindfulness-based interventions have shown less promise; among randomized controlled trials of mindfulness interventions for smoking cessation, mindfulness was not found to have a significant effect on smoking cessation rates compared to control conditions, including FFS, quit lines, and CBT (Maglione et al., 2017). In studies comparing mindfulness interventions to active controls, there is evidence that mindfulness interventions may be no better than usual treatment at maintaining abstinence from tobacco. Specifically, when mindfulness-based addiction treatment (MBAT; Vidrine et al., 2016) was compared to CBT and a usual care condition (four short individual counseling sessions focused on problem-solving and coping skills), smokers were no more likely to stay abstinent in the month following their quit date in either the MBAT or CBT condition than in the usual care condition. However, among participants who were not abstinent in the first month following their quit date, those assigned to MBAT were more likely to recover abstinence in the year following treatment (Vidrine et al., 2016). Despite mixed results of the effectiveness of mindfulness-based interventions in maintaining abstinence from smoking, some evidence suggests that mindfulness programs may be helpful with other markers of success. Adult smokers randomly assigned to participate in mindfulness training showed a greater reduction in the number of cigarettes smoked per day by the end of treatment compared to an active control, and were significantly more likely to have ceased smoking at the 17-week follow-up (31% vs. 6%; Brewer et al., 2011).

Alcohol and Illicit Drug Abuse. Mindfulness-based interventions have shown more consistent success in the treatment of alcohol and illicit drug problems than smoking cessation. Mindfulness interventions for substance use often involve existing evidence-based treatments alongside mindfulness components (e.g., Li et al., 2017). For example, mindfulness-based relapse prevention (MBRP) incorporates aspects of motivational interviewing and relapse prevention cognitive therapy with mindfulness practice in order to prevent relapse (Bowen, Witkiewitz, Chawla, & Grow, 2011), while mindfulness-oriented recovery enhancement (MORE) blends elements from mindfulness-based cognitive therapy and other cognitive-behavioral treatments with mindfulness training in order to target multiple risk factors associated with relapse (Garland, 2016).
Altogether, mindfulness-based treatments for substance use have been found to significantly reduce the frequency and severity of substance abuse and the intensity of cravings for substances (Li et al., 2017). Another example is from a study with male participants diagnosed with comorbid substance abuse and psychiatric disorders who were randomly assigned to participate in one of three 10-week group treatment programs: MORE, CBT, or a treatment-as-usual condition (psychoeducation, supportive group therapy, and coping skills groups). Participants assigned to MORE showed modest yet significantly greater improvements in substance craving, posttraumatic stress symptoms, and negative affect than those assigned to CBT (Garland et al., 2016). Evidence from a previous trial of MORE utilizing chronic pain patients with opioid use problems suggesting differences in craving may be due to the improvement of cardiac-autonomic responsiveness (i.e., heart rate and high frequency heart rate variability) to non-drug rewards and a corresponding decrease in reactivity to opioid rewards following treatment compared to a social support control group (Garland, Froeliger, & Howard, 2014). Results from these trials suggest that mindfulness training may complement more traditional substance abuse treatments (i.e., CBT, motivational interviewing) by promoting enduring change to the factors that often underlie relapse (e.g., Garland, Gaylord, Boettiger, & Howard, 2010).

Only one study assessed the use of a mindfulness-related intervention for substance abuse with a military population. In a pilot study testing Acceptance and Commitment Therapy for Veterans with Posttraumatic Stress Disorder and Tobacco Addiction (ACT-PT), 37% of participants were abstinent at the end of treatment, while 16% stayed abstinent at the three-month follow-up (M. M. Kelly et al., 2015). Although these findings suggest there may be some components of mindfulness interventions that are effective, these results also underscore how the data are mixed (and not highly robust) regarding the effectiveness of mindfulness interventions on reducing substance abuse.

Members of the Family Unit

Mindfulness-based preventions and interventions have successfully enhanced parents and children’s functioning by improving communication, emotion regulation, and behavioral patterns among family members (Napoli, 2011). Specifically, mindfulness interventions with parents aim to increase parental mental health and parenting skills, and mindfulness interventions for children and youth aim to improve social-emotional and behavioral outcomes in both school-based and clinical settings.

Couples. Although a myriad of research exists exploring the effectiveness of mindfulness interventions with individuals, less research examines mindfulness in the context of romantic relationships. Among the studies that explore mindfulness in the context of romantic relationships, the focus is often on the association between trait mindfulness (i.e., individuals’ natural disposition towards being mindful) and relationship satisfaction (Gambrel & Keeling, 2010). Among couples, trait mindfulness has been associated with greater relationship quality (Parent et al., 2014); more relationship satisfaction, perspective taking, and empathy (Block-Lerner, Adair, Plumb, Rhatigan, & Orsillo, 2007; Wachs &
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Cordova, 2007); and less attachment anxiety (Khalifian & Barry, 2016). Furthermore, mindful couples experience less distress during conflict (Barnes, Brown, Krusemark, Campbell, & Rogge, 2007) and are better at identifying and communicating their emotions generally (Wachs & Cordova, 2007) and during difficult conversations specifically (Khalifian & Barry, 2016). There is evidence to suggest mindfulness interventions may help couples obtain the skills needed to increase relationship satisfaction. For example, data from an eight-week mindfulness-based relationship enhancement intervention (MBRE; Carson, Carson, Gil, & Baucom, 2004) indicated that, compared to couples randomly assigned to a waitlist control group, MBRE couples experienced increased relationship satisfaction, autonomy, partner acceptance, and lower levels of both personal and couple distress at post-test and at three-month follow-up assessments (Carson et al., 2004). In addition, mindfulness interventions have been used with military couples, although these studies tend to focus on helping military Veterans and their partners manage adjustment during reintegration (e.g., Kahn, Collinge, & Soltysik, 2016; Makin-Byrd, Gifford, McCutcheon, & Glynn, 2011). Within romantic relationships, mindfulness interventions can positively influence sexual desire and satisfaction (Brotto, Erskine, et al., 2012) as well as arousal (Brotto, Chivers, Millman, & Albert, 2016). Moreover, mindfulness approaches may also help women cope with sexual distress (Brotto, Seal, & Rellini, 2012; T. Y. Rosenbaum, 2017). These studies suggest that mindfulness interventions may be helpful in improving multiple aspects of romantic relationships either by enhancing individuals’ trait mindfulness or teaching mindfulness-related skills to increase relationship quality and intimacy.

Parenting. Mindfulness-based interventions have been successfully utilized with perinatal women (e.g., Duncan & Bardacke, 2010), parents of children with disabilities (e.g., Anderson & Guthery, 2015; Bazzano et al., 2015; Ferraioli & Harris, 2013), families of adolescents (e.g., Coatsworth et al., 2015), and divorced (e.g., Altmaier & Maloney, 2007) or co-parenting (e.g., Parent et al., 2016) couples. The majority of research that examines the effectiveness of mindfulness-based approaches with families focus on mothers’ perinatal mental health (e.g., Duncan & Bardacke, 2010; Felder et al., 2017; Zhang & Emory, 2015) or the mental health of parents who have children with developmental disabilities (e.g., Benn, Akiva, Arel, & Roeser, 2012; Ferraioli & Harris, 2013; Neece, 2014) or attention-deficit hyperactivity disorder (e.g., ADHD; Anderson & Guthery, 2015; Bluth, Roberson, Billen, & Sams, 2013). Mindfulness-based approaches have been effective at reducing parental stress (Anderson & Guthery, 2015; May, Reinka, Tipsord, Felver, & Berkman, 2016), depression (Dimidjian et al., 2016; Duncan & Bardacke, 2010; Dykens, Fisher, Taylor, Lambert, & Miodrag, 2014), and anxiety (Benn et al., 2012; Dykens et al., 2014). Mindfulness approaches have also improved parental mindfulness (Coatsworth et al., 2015), well-being (Dykens et al., 2014), self-compassion (Bazzano et al., 2015), and health outcomes (Ferraioli & Harris, 2013). For example, parents and caregivers who engaged in an eight-week community-based mindfulness-based stress reduction (MBSR) program for parents of children with developmental disabilities experienced increased levels of mindfulness, self-compassion, and psychological and physical well-being and reduced overall perceived stress (Bazzano et al., 2015). Similar results were found in a sample of mothers who completed a nine-week mindfulness-based childbirth and parenting (MBCP) program. Participants in the sample experienced significant increases in mindfulness and positive affect, and reductions in pregnancy anxiety, depression, and negative affect (Duncan & Bardacke, 2010).
Mindfulness-based approaches aimed at parenting behaviors have also improved children’s behavioral outcomes (Singh, Lancioni, Winton, Singh, et al., 2007; Singh et al., 2010) and social outcomes (Lewallen & Neece, 2015) and helped enhance parent-child relationship quality (Coatsworth et al., 2015; Lippold, Duncan, Coatsworth, Nix, & Greenberg, 2015; May et al., 2016). Parents of children with developmental disabilities who participated in a 12-week mindfulness intervention reported their children were less aggressive and more social post-intervention. Parents also scored higher on mindfulness and reported increased parenting-related satisfaction and decreased stress (Singh et al., 2007). Lewallen and Neece (2015) found that children with developmental disabilities showed improvements in self-control, empathy, engagement, assertion, communication, cooperation, and responsibility after parents participated in an eight-week mindfulness-based stress reduction (MBSR) intervention. A 12-week mindfulness training for mothers of children with attention-deficit hyperactivity disorder (ADHD) led to increases in behavioral compliance, which were maintained through the 24-week follow-up. Mothers also reported increased satisfaction with their parent-child interactions and increased happiness with their child (Singh et al., 2010). Overall, the data suggest that mindfulness interventions for parents have positive impacts on parents’ as well as children’s outcomes.

**Children and Youth.** Mindfulness-based approaches aimed at children and youth have been adapted to be developmentally appropriate, such as mindfulness-based stress reduction for teens (MBSR-T; Biegel, Brown, Shapiro, & Schubert, 2009) and mindfulness-based cognitive therapy for children (MBCT-C; Semple & Lee, 2015). Mindfulness interventions have also been created for implementation for use in specific settings, such as Learning to BREATHE (Broderick & Jennings, 2012) and Inner Kids (Flook et al., 2010) in school-based settings or Meditation Soles of the Feet (N. Singh et al., 2007) in clinical settings. Further, mindfulness interventions may improve a variety of educational and psychosocial outcomes in children and youth (Felver, Celis-de Hoyos, Tezanos, & Singh, 2016; Zoogman et al., 2015). For example, mindfulness-based approaches have effectively been used to enhance youth and children’s academic performance (e.g., Thierry, Bryant, Nobles, & Norris, 2016) and emotion regulation (e.g., Dariotis et al., 2016) and reduce depression (e.g., Edwards, Adams, Waldo, Hadfield, & Biegel, 2014; Raes, Griffith, Van der Gucht, & Williams, 2013), anxiety (e.g., Biegel, Brown, Shapiro, & Schubert, 2009), stress (e.g., Mendelson et al., 2010; Metz et al., 2013; K. Schönert-Reichl et al., 2015), suicidal ideation (e.g., Britton et al., 2014), and attention and behavioral issues (e.g., Black & Fernando, 2014; Semple, Lee, Rosa, & Miller, 2010). Among children, for example, elementary students randomly assigned to a 12-week Mindfulness-Based Cognitive Therapy for children (MBCT-C) experienced significant reductions in attention problems compared to students assigned to a waitlist control group, and these effects were maintained at the three-month follow-up (Semple et al., 2010). In addition, students with clinically elevated levels of anxiety experienced a significant reduction in anxiety symptoms and problem behaviors following the MBCT-C intervention. Mindfulness interventions have also been developed and utilized with youth. Transformative Life Skills (TLS), a yoga and mindfulness-based intervention that uses yoga, breathing techniques, and centering meditation, was implemented in a school setting with middle school children from a diverse and high-poverty urban area. Youth randomly assigned to the TLS group
had significantly fewer unexcused absences and detentions and higher levels of school engagement compared to a treatment-as-usual control group (Frank, Kohler, Peal, & Bose, 2017). Learning to BREATHE (L2B), was implemented with ethnically diverse, at-risk adolescents in grades nine through twelve who attended an alternative high school. Students randomly assigned to the L2B intervention experienced reductions in depression compared to a control group of students who attended a substance abuse class (Bluth, Campo, et al., 2016). Suicidal ideation has also been successfully addressed through mindfulness techniques. A mindfulness preventative intervention for suicide among youth found that youth who engaged in a nine week program reported better self-regulation, less mind-wandering, and decreased suicidal thoughts (Le & Gobert, 2013).

Mindfulness interventions have been found to be more effective (small to moderate effect size) and more beneficial than active control comparison groups among samples of children and youth (Zoogman et al., 2015). However, larger effects were found for studies investigating psychological symptoms compared to measures of general functioning (e.g., social skills, quality of life, and mindfulness) and with clinical samples compared to non-clinical samples. This highlights the fact that mindfulness interventions may be particularly effective with clinical populations of youth. For example, in a clinical outpatient setting with adolescents, Biegel and colleagues (2009) found that those randomly assigned to an MBSR group reported reduced symptoms of anxiety, depression, somatic distress, and increased self-esteem and sleep quality compared to the treatment-as-usual control group. This is important given that the majority of research exploring the utility and effectiveness of mindfulness interventions with youth occur with youth from mainstream classrooms within school-based settings (Felver et al., 2016; Zoogman et al., 2015). Consequently, mindfulness interventions may be effectively adapted and utilized with youth who are dealing with a variety of educational and psychosocial issues.

**Domestic Violence**

Research that examines the utility of mindfulness approaches when working with families who experience domestic violence is limited. However, preliminary findings suggest that mindfulness-based interventions may be useful with both perpetrators and survivors of domestic violence.

**Intimate Partner Violence.** The majority of research evaluating the effectiveness of mindfulness interventions focuses on survivors of IPV (e.g., A. Kelly, 2015; Nguyen-Feng et al., 2016; Tesh, Learman, & Pulliam, 2015). Compared to women who engaged in a community IPV support group, women who completed an eight-week mindfulness program that emphasized psychoeducation and meditation showed increases in aspects of self-compassion, including mindfulness. In addition, women who engaged in the mindfulness intervention were less likely to over-identify with negative emotions, which is important as an over-identification with negative emotions can worsen depressive symptoms (Crowder, 2016). A feasibility study examining the implementation of an adapted 10-week MBSR intervention for low-income women with a history of IPV found that women who engaged in the MBSR group reported less distress and increased levels of awareness, self-acceptance, self-empowerment, and

Women survivors of IPV who engaged in more home-based mindfulness practice reported a greater reduction in PTSD symptoms compared to those who reported fewer minutes of home practice.
non-reactivity compared to a waitlist control group. In terms of feasibility, 70% of participants attended five or more sessions although participants found it difficult to complete home practice (Dutton, Bermudez, Matás, Majid, & Myers, 2013). In a randomized controlled trial, women assigned to an eight-week trauma informed mindfulness-based stress reduction (TI-MBSR) condition reported significantly greater reductions in PTSD symptoms and depression compared to women assigned to a control group. In addition, women who engaged in more home-based mindfulness practice reported a greater reduction in PTSD symptoms compared to those who reported fewer minutes of home practice. Women in the TI-MBSR condition also experienced a significant reduction in PTSD diagnoses despite not being asked to disclose or actively process their trauma (A. Kelly & Garland, 2016). Therefore, mindfulness interventions may be an alternative approach to use with IPV survivors who do not want to actively process or disclose their trauma.

Theoretically, mindfulness interventions may be beneficial when working individually with perpetrators of IPV (e.g., Shorey et al., 2012; Tasso, Whitmarsh, & Ordway, 2016; Tollefson & Phillips, 2015) or during couples therapy (e.g., S. M. Stith, McCollum, & Rosen, 2011); however, few studies have empirically examined the effectiveness of these approaches with perpetrators. Mindfulness interventions that include perpetrators may be important as evidence suggests that perpetrators who scored low on trait mindfulness and who had a history of excessive alcohol use engaged more frequently in sexual aggression (e.g., insisting on sex or forcing partner to have sex) with an intimate partner than those who scored high on trait mindfulness (Gallagher, Hudepohl, & Parrott, 2010).

Traditional treatment for IPV perpetrators is based on the assumption that perpetrators lack impulse control, communication skills, and/or empathy. Therefore, traditional treatments provide psychoeducation and skill building opportunities for perpetrators utilizing a variety of strategies, such as anger management, empathy training, cognitive-behavior therapy, and the Duluth model’s power and control wheel (Pence & Paymar, 1993; A. Rosenbaum & Leisring, 2001). Consequently, if perpetrators work to cultivate these skills their risk of violence will be reduced (Tollefson & Phillips, 2015). Furthermore, the skills needed to reduce the risk of violence may be learned through building mindfulness skills. The mind-body bridging approach uses mindfulness skills to help perpetrators reduce violence. This approach is based on the premise that over-activity in the mind-body state and lack of awareness of this over-activity leads to a violent act (Tollefson & Phillips, 2015; Tollefson, Webb, Shumway, Block, & Nakamura, 2009). Therefore, this approach focuses on helping individuals increase mindfulness by controlling their physiological and psychological states to reduce the risk of engaging in a violent act (Tollefson & Phillips, 2015; Tollefson et al., 2009). Perpetrators who participated in a mind-body bridging group were more likely to complete the program, were less likely to re-offend during the follow-up period (an average of 428 days post-treatment), and experienced significant improvements in mindfulness (as well as mental and physical health outcomes) compared to perpetrators who engaged in a traditional domestic violence offender group (Tollefson & Phillips, 2015).
Similarly, IPV perpetrators who completed a 12-week mindfulness and modification intervention (MMT), aimed at teaching present moment awareness and non-judgment to reduce emotional dysregulation, experienced decreased levels of physical aggression (Wupperman et al., 2012). Overall, the data on studies with IPV survivors and perpetrators suggest that mindfulness interventions may be effective approaches for helping IPV survivors cope with trauma symptoms related to abuse (e.g., depression, PTSD) and reduce re-offenses among offenders of IPV.

**Child Maltreatment.** There are numerous studies of cognitive behavioral and family interventions for children who are survivors of childhood maltreatment (Cummings & Berkowitz, 2014); yet, currently there are a limited amount of studies that examine the effectiveness of mindfulness interventions with children or youth with a history of maltreatment (e.g., Bethell, Gombojav, Solloway, & Wissow, 2016; Jee et al., 2015). Among these studies, the findings suggest interventions that include components of mindfulness are effective at helping youth manage their stress and gain social skills (Jee et al., 2015) and reduce aggressive behaviors (Swart & Apsche, 2014). However, most studies on child maltreatment and mindfulness examine the effectiveness of mindfulness interventions with adults who have a history of childhood maltreatment or other childhood adversities (e.g., parental domestic violence or parental substance abuse; Ortiz & Sibinga, 2017). These intervention studies often focus on increasing mindfulness practices as a way to cope with the negative mental health effects of child maltreatment (e.g., Brotto, Seal, et al., 2012; Daigneault, Dion, Hebert, & Bourgeois, 2016; Ortiz & Sibinga, 2017). For example, compared to a waitlist control, women with a history of child maltreatment who participated in a three-day mindfulness intervention, experienced reductions in emotional suppression and rumination, and increases in emotional clarity and emotion regulation (Caldwell & Shaver, 2015). Similarly, adult women with a history of childhood sexual abuse who participated in an eight-week MBSR intervention experienced a reduction in symptoms of anxiety, depression, and PTSD symptoms, including re-experiencing, avoidance/numbing, and hyperarousal as well as increased levels of mindfulness (Kimbrough, Magyari, Langenberg, Chesney, & Berman, 2010). Furthermore, among this sample, improvements were maintained through the 24-week follow-up (Kimbrough et al., 2010) and at the two and a half year follow-up (Earley et al., 2014). These findings suggest that MBSR may be an effective long-term treatment approach for adults who experienced childhood sexual abuse. However, a majority of intervention studies with adult survivors of child maltreatment have been with female participants; therefore, limited information can be concluded about the effectiveness of mindfulness interventions with male survivors.

**Resilience**

A variety of programs have been utilized by service providers who work with military families to help promote the resilience and well-being of military Service members and their families. However, little is known regarding the efficacy of these programs (Morgan & Bibb, 2011; Thomas & Taylor, 2015). One such program is mindfulness-based mind fitness training (MMFT; Stanley et al., 2011). MMFT is an eight-week mindfulness-based stress reduction intervention adapted specifically for military Service members preparing for deployment.
MMFT combines pre-deployment and stress management training as a way to promote psychological and cognitive resilience among Service members (Stanley et al., 2011). U.S. Marine Reservists who completed MMFT training and engaged in more home practice (including 30 minutes of daily mindfulness practice outside of the intervention) had higher levels of mindfulness compared to those who engaged in less home practice and those who were in the control group. In addition, increases in mindfulness were associated with lower levels of perceived stress. Using the same sample of U.S. Marine Reservists, Jha and colleagues (2010) found that Marines who engaged in more mindfulness training experienced greater improvements in working memory, lower levels of negative affect, and higher levels of positive affect. MMFT training has also been successfully used to strengthen Marine Reservists’ attentional performance and reduce incidents of mind wandering during high-stress training (Jha, Morrison, Parker, & Stanley, 2017). Another mindfulness intervention, *Just Roll With It*, is a one-day, peer-led resiliency program for Veterans. This intervention uses focused movement, breath, and body awareness exercises to promote mental health and reduce the risk of suicide (Hendricks Thomas, Plummer Taylor, Hamner, Glazer, & Kaufman, 2015). Veterans who completed the training rated the programs as useful in encouraging health practices, reported that the training promoted a socially supportive environment, and enjoyed engaging in yoga and physical activities (Hendricks Thomas et al., 2015).

**Helping Professionals**

Mindfulness interventions have been shown to be beneficial for a diverse range of helping professionals, such as health care personnel (e.g., Burton, Burgess, Dean, Koutsoupoulou, & Hugh-Jones, 2016; Goodman & Schorling, 2012), home visitors (e.g., Becker, Patterson, Fagan, & Whitaker, 2016), and police officers (e.g., Bergman, Christopher, & Bowen, 2016) across a wide range of skill levels, from trainees (e.g., Bohecker, Wathen, Wells, Salazar, & Vereen, 2014; Felton, Coates, & Christopher, 2015) to licensed professionals (e.g., Kemper & Khirallah, 2015). These approaches have been implemented in group settings (e.g., Dorian & Killebrew, 2014; Johnson, Emmons, Rivard, Griffin, & Dusek, 2015), online (e.g., Bormann, Walter, Leary, & Glaser, 2017; Kemper & Khirallah, 2015), via telephone (e.g., Bazarko, Cate, Azocar, & Kreitzer, 2013), and within classroom settings with student trainees (e.g., J. C. Campbell & Christopher, 2012; Lee & Himmelheber, 2017). Mindfulness interventions are most often utilized as an approach to self-care for helping professionals to alleviate stress and reduce the risk of burnout (e.g., Hunter, 2016; Moody et al., 2013; West, Dyrybe, Erwin, & Shanafelt, 2016). For example, a systematic review of the effectiveness of MBSR with helping professionals found that those who completed MBSR training reported reduced levels of stress, depression, anxiety, and emotional exhaustion (Burton et al., 2016). Moreover, nurses who completed an eight-week MBSR (in-person and over the phone) intervention reported improvements in overall general health, perceived stress, and burnout, which were maintained at the four month follow-up (Bazarko et al., 2013). Similar positive results were found among a sample of military and civilian healthcare providers at a military-connected hospital who received a two-day workshop on stress-reduction mindfulness training (Stetz et al., 2012).
Although mindfulness interventions tend to focus on improving helping professionals’ own self-care practices, they may also improve professionals’ clinical skills such as empathy (e.g., Burton et al., 2016), compassion (e.g., Dorian & Killebrew, 2014), and acceptance and therapeutic presence (e.g., McCollum & Gehart, 2010). For example, graduate level therapist trainees who completed mindfulness meditation training felt more present during therapy sessions and were more accepting and compassionate toward themselves and their clients (McCollum & Gehart, 2010). Social workers who engaged in a three-week yoga and mindfulness-based intervention were more satisfied with their ability to effectively help their clients, especially clients classified as “difficult,” than social workers assigned to a non-treatment control group (Gregory, 2015). These studies suggest there is support for the use of mindfulness interventions to reduce stress and burnout among helping professionals as well as to foster more positive provider-client interactions.

In sum, mindfulness interventions are effective in addressing many of the concerns children, youth, families, and helping professionals experience, such as stress (e.g., Johnson et al., 2015; Weinstein, Brown, & Ryan, 2009), relationship difficulties (e.g., Brem et al., 2015), and behavioral problems (e.g., Flook et al., 2010). As such, these interventions are worth consideration by helping professionals as they develop programs and provide services to families. Although mindfulness-based and mindfulness-informed interventions have consistently been found to be more effective than no treatment (e.g., Call, Miron, & Orcutt, 2014; King et al., 2013), there are mixed findings regarding whether mindfulness interventions are more effective than CBT (e.g., Arch & Ayers, 2013; Vidrine et al., 2016). For those mindfulness interventions that are equally or more effective, it is unclear which components of mindfulness influence family outcomes. Moreover, there are emerging data that suggest certain components of mindfulness interventions may be more effective in improving particular psychological symptoms than other components (e.g., Colgan, Christopher, Michael, & Wahbeh, 2016). Despite these findings, the trend in the literature is that mindfulness interventions are largely effective (Khoury et al., 2013). Even though there are limited studies that examine which mindfulness interventions are best for families generally and military families specifically, current findings in the literature suggest there are several applications for helping professionals who work with and on behalf of military families.
Applications of Mindfulness Interventions

Mindfulness interventions were initially developed for and validated with individuals who had difficulties with stress management, emotion regulation, and mental and physical health symptoms (Baer, 2003). More recently, research on mindfulness interventions has expanded to include couples and families with similar concerns as well as a focus on improving parenting skills and enhancing characteristics of strong, resilient families such as respectful communication (e.g., Parent et al., 2016). When mindfulness interventions are used with families, these interventions are usually embedded into parenting programs that include training on mindfulness techniques (e.g., Pinna, Hanson, Zhang, & Gewirtz, 2017) or adapted versions of mindfulness interventions such as Mindful Motherhood (Viets & Astin, 2008; Zhang & Emory, 2015), which is adapted from MBSR. Based on a review of the literature, helping professionals can apply mindfulness interventions within the work they do with military families by considering four general areas: areas of functioning that are the target of the intervention (e.g., stress reduction, emotion regulation, or improved interpersonal relationships; Bethell et al., 2016), who are the recipients of the intervention (e.g., couples, children, or family unit; Bazzano et al., 2015), location of services (e.g., youth program, school, or home; Bostic et al., 2015), and the intensity or dosage of mindfulness (e.g., the degree to which there is an emphasis on meditation, non-judgmental acceptance, etc.; Pigeon, Allen, Possemato, Bergen-Cico, & Treatman, 2015).

Areas of Functioning

Various areas of functioning, such as self-regulation and stress management, can be improved upon with mindfulness interventions (e.g., Himelstein, Hastings, Shapiro, & Heery, 2012). Helping professionals can work with military families to best determine which areas of functioning families would like to target. Specifically, if parents are concerned about their youth’s discomfort in social situations, helping professionals could teach mindfulness-based breathing techniques in youth development programs to help youth better cope with their anxiety around peers (e.g., Cotton et al., 2016). Also, helping professionals could teach distressed parents how to employ mindful meditation to have calmer, less reactive interactions with their children, which may address concerns about the impact of parenting stress on parent-child relationships (e.g., K. Campbell et al., 2017). Moreover, there are numerous studies that suggest mindfulness skills and techniques help parents and families who are functioning well but encounter stressful circumstances such as a death of a loved one (e.g., Thieleman, Cacciator, & Hill, 2014) or
reintegration after parent deployment (e.g., Gewirtz, Pinna, Hanson, & Brockberg, 2014). For example, HomeFront Strong, a group intervention that promotes positive mental health, resilience, and adjustment in military spouses, teaches mindfulness skills (e.g., breathing techniques, acceptance) in addition to other stress management skills. Findings suggest that skills learned in HomeFront Strong are associated with reduced stress and increased resilience among Active Duty spouses (Kees & Rosenblum, 2015) and Service members (Dayton, Walsh, Muzik, Erwin, & Rosenblum, 2014). Since mindfulness interventions are effective for both reducing negative symptoms and improving health and wellness, helping professionals can apply mindfulness techniques with military families who have a diverse range of needs.

**Recipients of the Assistance**

Helping professionals often provide services for individual Service members, couples, children, and/or the entire family. Mindfulness interventions have been shown to be effective for Service members (e.g., Stanley et al., 2011), military couples (e.g., Doty, Rudi, Pinna, Hanson, & Gewirtz, 2016), military spouses (Kees, Nerenberg, Bachrach, & Sommer, 2015), and military children (e.g., Le, 2014). Helping professionals could determine which mindfulness skills and interventions are most applicable by considering which members of the family are receiving the mindfulness skills. For example, children’s developmental age can impact which mindfulness skills are most effective. Data suggest that introspective components (e.g., self-awareness) of mindfulness might be harder for adolescents who are in a developmental stage that includes increased negative perceptions about themselves than for pre-adolescents who tend to have fewer negative self-perceptions (K. A. Schonert-Reichl & Lawlor, 2010). Additional factors such as children’s attention span and cognitive abilities are also important for helping professionals to consider.

**Location of Services**

As the application of mindfulness interventions has evolved, the locations where these techniques and skills have been taught has expanded as well (e.g., Adkins, Singh, Winton, McKeegan, & Singh, 2010). Specifically, individuals and families have experienced improvement in psychological symptoms and well-being from mindfulness skills taught in correctional facilities (e.g., Malouf, Youman, Stuewig, Witt, & Tangney, 2017), medical settings (e.g., Altschuler, Rosenbaum, Gordon, Canales, & Avins, 2012), treatment facilities (e.g., Amaro, Spear, Vallejo, Conron, & Black, 2014), schools (e.g., Fung, Guo, Jin, Bear, & Lau, 2016; Le & Gobert, 2013), and youth programs (e.g., Le, 2014). For children and families, one of the locations where mindfulness interventions have become more common in recent years is in school settings (Greenberg & Harris, 2012; Lawlor, 2014), with some interventions occurring during school (e.g., Biegel & Brown, 2010) or immediately following the school day (e.g., White, 2012). For example, elementary school students who received 15 minutes a day of mindfulness interventions (e.g., deep...
breathing, age-appropriate yoga poses) over one month demonstrated better self-regulation while at school than students who were in the wait-list control group. Notably, the mindfulness techniques were taught to the students by their teachers during the school day (Parker, Kupersmidt, Mathis, Scull, & Sims, 2014). Positive outcomes from mindfulness interventions delivered by teachers is particularly relevant for considerations of effectiveness of these interventions for military children and families that are delivered by a diverse range of helping professionals who may not have formal training in mindfulness techniques. Similarly, positive outcomes (e.g., increased stress management skills) were demonstrated when youth development professionals delivered a mindfulness intervention to military youth at a summer camp. Youth development professionals received one day of training on mindfulness interventions before teaching the skills to youth (Le, 2014). These studies suggest that not only can mindfulness interventions be effective when delivered in various settings, but these interventions can also be effective when taught by helping professionals who currently work in those settings (i.e., teachers, youth development professionals).

Although indirectly related to location, the modalities (the mode or format) of mindfulness interventions have also grown in recent years. Data suggest that mindfulness techniques are effective when delivered via self-help (i.e., not taught by a professional; Cavanagh, Strauss, Forder, & Jones, 2014), telephone (e.g., Cox et al., 2014), or internet (e.g., Thompson et al., 2015). For all families, including military families, the portability of mindfulness interventions outside of a hospital or therapist’s office can add to the increased accessibility of these interventions for parents and children. For example, the After Deployment Adaptive Parenting Tools Program (ADAPT; Gewirtz & Davis, 2014), which has a module that teaches mindfulness techniques to military parents, has been delivered via online modules with success. The online components of ADAPT included audio recordings of mindfulness exercises for parents to practice (Doty et al., 2016).

**Intensity or Dosage**

Mindfulness interventions vary widely regarding the type of skills that are taught. When including mindfulness skills in services for families, it is important that helping professionals teach and allow families to practice the skills at each session. Regular exposure to and practice of different components of mindfulness (e.g., body scan, centering, deep breathing, and/or meditation) is likely associated with levels of mindfulness (Felver et al., 2016). For example, when sessions in a mindful parenting intervention included more mindfulness exercises, increased amount of time practicing those exercises, and exercises conducted early in sessions, parents reported more mindfulness (i.e., non-judgmental acceptance, moment-to-moment awareness) at the end of those sessions compared to sessions with fewer mindfulness exercises and less time practicing those exercises (Altmaier & Maloney, 2007). Although most families will likely benefit from more opportunities to learn and practice mindfulness skills, there is also evidence that shortened sessions of MBSR, which included all the components to
teach mindfulness skills, produced comparable outcomes to the standard MBSR sessions (Carmody & Baer, 2009). Therefore, helping professionals who may be limited in time may still be able to provide effective strategies to increase military families’ level of mindfulness and associated positive outcomes (e.g., stress reduction).

In sum, among children, youth, and adults, mindfulness exercises such as body scans, deep breathing, mindful meditation, and yoga have been associated with more relaxation, greater insight, better emotion and behavior regulation, improved communication, and increased empathy and compassion (Chambers, Gullone, & Allen, 2009; Coholic, 2011; Thierry et al., 2016). Since characteristics such as communication, emotion regulation, and empathy are associated with strong, resilient families (DeFrain & Asay, 2007), helping professionals who incorporate mindfulness skills can help military families as they strengthen their resilience. Furthermore, teaching mindfulness skills before military families encounter stressful circumstances can also help reinforce military family readiness. Research findings consistently suggest that military families who develop preparation strategies (e.g., coping strategies) have better adjustment than families who do not (e.g., Louie & Cromer, 2014). Mindfulness skills training could be a helpful adjunct to military families’ preparation strategies as they adjust to deployment, permanent relocations, and other military-related situations. Therefore, helping professionals can consider applying mindfulness techniques as a preventative approach to help build coping and resilience as well as an intervention once families have begun to experience stress.

Conclusions and Recommendations

Mindfulness meditation is a highly developed skill that requires formal instruction and practice (Batchelor, 2011); however, interventions based on mindfulness meditation have been adapted for laypersons. There is increasing evidence that mindfulness interventions are effective for civilian families generally (e.g., Emley, Taylor, & Musher-Eizenman, 2017; Felder et al., 2017) and military families specifically (e.g., Kahn et al., 2016). As a result, mindfulness techniques are well-suited for helping professionals to use with military families because they can be adapted for all ages and developmental levels, taught in a brief amount of time, are portable and do not require equipment, and are easily self-administered (i.e., can be practiced without ongoing assistance from a professional; K. Smith et al., 2016). It is highly recommended that helping professionals who work with and on behalf of military families incorporate different mindfulness skills and techniques into existing interventions and programs that have been designed or validated with military families, such as ADAPT (Gewirtz & Davis, 2014), HomeFront Strong (Kees et al., 2015), and STRoNG Intervention (Rosenblum & Muzik, 2014; Walsh et al.,
In addition, to continue to support the resilience and well-being of military families, the following program and policy recommendations are offered.

**Programs could:**

1. **Consider providing training on mindfulness interventions for all professionals who work with or on behalf of Service members and their families.** Although training in mindfulness-based interventions such as MBSR and MBCT is usually reserved for professionals with clinical backgrounds (Creswell, 2016), non-clinical helping professionals can be trained to be aware of and/or deliver mindfulness techniques in one to two days (e.g., Le, 2014; Stetz et al., 2012). Therefore, including basic training for a diverse group of helping professionals may be an effective way to broadly disseminate mindfulness techniques and skills to Service members and their families.

2. **Consider offering an introduction to mindfulness techniques and skills to Service members and their families, especially those families who are considered to be at a high-risk of domestic violence, substance abuse, and mental health symptoms (e.g., PTSD and depression).** Service members and their families who are identified as having risk factors associated with interpersonal violence, child maltreatment, and other concerns may benefit from participating in programming that teaches mindfulness skills as part of stress reduction and healthy interpersonal relationships.

3. **Focus efforts of delivery of mindfulness interventions to Service members and their families who have limited access to formal services or resources.** As more data suggest that electronic delivery of mindfulness interventions can be effective (e.g., Niles et al., 2012), programs could consider increasing efforts to reach National Guard and Reserve families or families at international installations that may have limited access in-person programming.

**Policies could:**

1. **Encourage the inclusion of brief mindfulness interventions in current programs, such as suicide prevention and substance abuse intervention, for Service members and their families.** It may be useful for Service members and their families if they are introduced to mindfulness techniques through programs and services in which they currently participate. By incorporating these interventions into current programming, military families may feel less burdened than if they were invited to attend a separate program.

2. **Recommend that helping professionals use mindfulness techniques to minimize work-related stress.** Professionals from a variety of disciplines have used mindfulness techniques to manage their own stress (Raab, 2014). As helping professionals continue to assist Service members and their families with a complex set of needs (e.g., multiple relocations, reintegration), these professionals may benefit from more guidance in how to use mindfulness to engage in their own self-care.

3. **Promote the dissemination of mindfulness interventions in diverse settings and via electronic modalities such as telephone and internet.** As more data emerge about the effectiveness of mindfulness skills with Service members and their families (e.g., Tasso et al., 2016), there is a need to integrate these interventions in diverse locations (e.g., schools on installations) and through different modalities.
Future Research

Although there has been an increase of theoretical and empirical research on mindfulness and families in recent years (Gambrel & Keeling, 2010; Greenberg & Harris, 2012), there continues to be a need for additional research on the effectiveness of mindfulness interventions with diverse military families (e.g., Active Duty, National Guard and Reserves). To help address this gap in the literature, the following recommendations are offered:

1. **Continue to utilize randomized controlled trials to examine the effectiveness of mindfulness preventions and interventions.** Given that the majority of studies exploring the effectiveness of mindfulness-based preventions and interventions either lack a comparison group or use non-active comparison groups (e.g., treatment-as-usual), it is important that future research utilize randomized controlled trials to more accurately attribute changes in outcomes to mindfulness-based preventions and interventions.

2. **Examine the effectiveness of mindfulness interventions with Active Duty and National Guard and Reserve samples regarding reduction in suicide and domestic violence.** Few studies examine mindfulness preventions and interventions with military samples. Moreover, studies with military samples tend to focus on mental health outcomes among Veterans dealing with post-deployment related issues (e.g., PTSD, drug use, depression). More studies are needed that examine adjustment, stress management, resilience, and well-being among Active Duty and National Guard and Reserve Service members as well as their spouses and children. Furthermore, additional research on how helping professionals can add mindfulness interventions to current modalities (e.g., support groups) is also important.

3. **Examine the effectiveness of telephone or internet-based mindfulness interventions.** Limited research exists regarding the efficacy of web-based or telephonic mindfulness interventions, but they may be an effective and affordable way to engage more military families.

4. **Continue to examine the dosage level of mindfulness interventions necessary to experience benefits.** Mindfulness interventions vary in dose (e.g., duration of sessions, amount of exercises in each session), which may influence their effectiveness. Understanding the minimum dosage necessary to achieve benefits may be important, particularly for Service members and families where brief interventions may be more conducive to the multiple demands on their families. In addition, emerging research suggests that individuals who have a history of trauma may find participation in some of the exercises difficult (e.g., closing their eyes to do body scans in a room full of people they do not know; Dutton et al., 2013). Therefore, future research could continue to explore mindfulness interventions that consist of adaptations for military families with a history of trauma (e.g., IPV, child maltreatment, and combat exposure).

Mindfulness interventions offer opportunities for military families to learn techniques and skills to improve their overall health and well-being and manage stress as they encounter difficult situations. Further, helping professionals can serve an important role in teaching and reinforcing mindfulness skills as military families support their Service member and strengthen their family’s readiness and resilience.
References


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