MILITARY SPOUSE ONLINE AUTISM RELOCATION READINESS (MILSOARR)

TRAINING AND MENTORSHIP PROGRAM

A Dissertation in

Communication Sciences and Disorders

by

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ABSTRACT

The purpose of this dissertation was to develop and evaluate the Military Spouse Online Autism Relocation Readiness (MilSOARR) training and mentorship program. Chapter 2 reviewed 12 effective distance peer support mentorship programs to determine evidence-based mentor training procedures. Chapter 3 outlined how these evidence-based mentor training procedures and adult learning principles were used to develop an online mentor training program. Results from this program development and implementation project indicated military spouses effectively learned the program procedures and communication strategies related to the three types of support peer mentors provide (i.e., emotional, affirmational, informational) by progressing through the training modules. Further, participants in the training felt it helped them become a better mentor and they would recommend the training to other military spouses who want to provide mentorship. Chapter 4 reported the effects of the online mentoring program on the peers, the military spouses with children with ASD and little permanent change of station (PCS) experience. Peers reported small, but positive outcomes relative to PCS stress, PCS attitude, self-efficacy, and resilience. They also felt the mentorship program was beneficial and would recommend it to other military spouses. Despite methodological shortcomings, the positive results from these studies support the need for further research.
TABLE OF CONTENTS

List of Figures .................................................................................................................. vi
List of Tables ..................................................................................................................... vii
Acknowledgements ......................................................................................................... ix
Chapter 1 Introduction .................................................................................................... i
Chapter 2 Narrative Review of Distance Peer Mentor Training ..................................... 11
Chapter 3 Effectiveness of Distance Peer Mentor Training ............................................ 40
Chapter 4 Peer Experiences of Military Spouses in a Distance Peer Mentoring Program .................................................................................................................. 81
Chapter 5 Discussion ..................................................................................................... 126
Appendix A: Operational Definitions of Data Extraction Categories ............................. 140
Appendix B: Operational Definitions of Training Content and Training Instruction .... 143
Appendix C: Examples of Training Content Used in MilSOARR ................................ 145
Appendix D: Examples of Strategy Instruction to Teach Support Skills ....................... 146
Appendix E: Assessment Form A .................................................................................... 149
Appendix F: Assessment Form B .................................................................................... 154
Appendix G: Operational Definitions of the CAS Framework Case Study Coding ....... 159
Appendix H: Demographic Form for Peer Mentors ..................................................... 161
Appendix I: Peer Partner Training Satisfaction Questions ........................................... 165
Appendix J: Assumptions of Welch T-Test ................................................................... 166
Appendix K: Operational Definitions of Peer Partner Likes and Recommendations .... 167
Appendix L: Operational Definitions of Peer Challenges, Benefits, and
Recommendations .............................................................................................................. 170
References .......................................................................................................................... 172
LIST OF FIGURES

Figure 1. Multi-Faceted Search Strategy for Narrative Review…………………………20
LIST OF TABLES

Table 1. Data Extraction from Articles Included in Narrative Review……………………24
Table 2. Data Extraction from Articles Included in Narrative Review Cont……………26
Table 3. Subcategories, Frequencies, and Examples of Training Content……………28
Table 4. Demographic Information for Participants of Training Program……………57
Table 5. Welch T-Test Comparing Gains Scores from Training Group and

            Comparison Group……………………………………………………………………58
Table 6. Summary of Training Group Performance on Post-Test by Content Category...60
Table 7. Item Difficulty Analysis………………………………………………………….61
Table 8. CAS Framework Essay Question Analysis…………………………………62
Table 9. Training Group Response to Preparation and Recommendation Questions……63
Table 10. Training Group Satisfaction with Training…………………………………63
Table 11. Training Group Likes about the Training……………………………………64
Table 12. Training Group Recommendations for Training……………………………67
Table 13. Demographic Information for Peers in the Mentoring Program……………99
Table 14. Wilcoxon Signed Ranks Test of Pre-Mentor and Post-Mentor Variables…..101
Table 15. Means of Pre-Mentor and Post-Mentor Variables…………………………101
Table 16. PCS Stress Ranks…………………………………………………………………102
Table 17. PCS Attitude Ranks………………………………………………………………103
Table 18. Self-Efficacy Ranks………………………………………………………………103
Table 19. Resiliency Ranks…………………………………………………………………104
Table 20. Peer Perceived Mean Support…………………………………………………105
Table 21. Peer Perceived Emotional Support…………………………………………106
Table 22. Peer Perceived Affirmational Support.................................107
Table 23. Peer Perceived Informational Support...............................108
Table 24. Peer Satisfaction of Mentorship Program.............................109
Table 25. Peer Recommendations and Intention of Contact......................109
Table 26. Peer Challenges of Mentorship Program...............................111
Table 27. Peer Benefits of Mentorship Program.................................112
Table 28. Peer Recommendations for Mentorship Program.......................113
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Hebrews 12:1-2
Chapter 1

Introduction

Autism spectrum disorder (ASD) is a developmental disorder characterized by impairments in behavior, social communication, and social interaction (APA, 2013). According to the Center for Disease Control (ADDMN, 2014), the prevalence of ASD has increased over the past decade, raising from 1/110 to 1/64 children. Individuals with ASD may present with repetitive and/or restrictive behaviors and interests, self-injurious behaviors, impaired joint attention, decreased eye contact, limited and/or delayed communication, difficulty with transitions, and difficulty with social interaction, among other symptoms (Barbaro & Dissanayake, 2009; Matson, Dempsey, & Fodstad, 2009). Although individuals with ASD make improvements in many skills over time with intervention, some deficits remain into adulthood (Howlin, Mawhoodd, & Rutter, 2000). Due to the broad and lasting impairments for individuals with ASD, parents are integral throughout the course of their child’s life.

Parenting a child with ASD presents unique challenges because of the variety of needs of their child (e.g., Mackintosh, Goin-Kochel, & Meyers, 2012). In addition to typical stressors parents face, parents of children with ASD also must cope with the combination of accessing interventions, financial cost of therapies, increased time demands on daily care, and strained relationships with family and friends (Mackintosh et al., 2012; Myers, Mackintosh, Goin-Kochel, 2009; Tregnago & Cheak-Zamora, 2012; Kogan, Strickland, Blumberg, Singh, Perrin, & van Dyck, 2008). Parents are responsible
for understanding any combination of 32 different “established” or “emerging”
treatments (NAC, 2015) therapists may implement for their child while working with an
average of 7 professionals (Kohler, 1999). Families may also choose to use
pharmaceutical interventions with their child with ASD and have at least 15 different
medications from which to choose (Aman, Lam, Van Bougondien, 2005). Further,
parents of children with ASD are less likely than families with children with other special
needs to receive family-centered care to help inform their decisions about interventions
(Farmer et al., 2014).

The needs of the child with ASD also place an emotional toll on the family
(Myers et al., 2009). Parents of children with ASD report more stress than parents of
typically developing children or parents of children with other special needs (Hays &
Watson, 2013). Higher levels of stress in mothers with children with ASD have been
linked to lower levels of informal social support (Bromley, Hare, Davison, & Emerson,
2004). A study by Bromley et al., (2004) indicated support was the most common unmet
need for mothers of children with ASD. Specifically, mothers mentioned they needed
support during the holidays, someone to connect with, and someone to offer advice on
interventions (Bromly et al., 2004). Social support is important for families with children
with ASD because it serves as a protective factor and increases resilience to challenges
(Bayat, 2008). However, civilian families with children with ASD may just be one group
who are at risk for higher levels of stress and lower levels of social support.

Military families encounter “normative stressors” such as the birth of a new child
or death of a family member similar to civilian families (Braisure, Saathoff-Wells,
MacDermid-Wadsworth, & Dombrow, 2012, p.15); however, they also experience
stressors specific to the military lifestyle. Segal (1986) characterized military families by a constellation of experiences related to the military including family separation, frequent relocation around the country and possibly overseas, and dangerous work environments. Most military families adapt to the stressors of the military lifestyle and demonstrate strengths such as resilience and flexibility (Braisure et al., 2012). As an example, an active duty spouse survey from 2010 to 2012 reported the majority of military spouses and children in military families did not display clinically significant levels of depressive/anxiety symptoms or problematic behavior, respectively. Further, 76% of military spouses reported that they were somewhat or strongly in favor of their spouse remaining active duty (Defense Manpower Data Center, 2015). Although most military families adapt and thrive in the military culture, other families may struggle (Chandra et al., 2009; Croan, LeVine, & Blankinship, 1992; Defense Manpower Data Center, 2015).

An aspect of the military lifestyle that may be challenging for military families is frequent relocations. Military families relocate every 2-3 years (Burrell, Adams, Durand, & Castro, 2006) causing disruptions in community and personal relationships and supports (Finkel, Kelley, & Ashby, 2003). After a move, the military family must reorganize and restructure their life to adapt to the new location and routines (Drummet, Coleman, & Cable, 2003). Military families may grieve the loss of their previous community and friendships and may feel stress during and after the move (Drummet et al., 2003). Croan et al., (1992) surveyed active duty service members and their spouses about their relocation experiences and found soldiers with a spouse and child were three times more likely than single active duty service members to experience logistical problems during a relocation. Croan and colleagues (1992) also found military families
were more likely to experience relocation problems if they had more children, their children were over the age of 3, and/or they received less pre- or post-relocation information. Relocations may also be particularly challenging for military families with children with special needs (Davis & Finke, 2015a).

Previous peer reviewed literature (Davis & Finke, 2015a; Davis, Finke, & Hickerson, 2016a; Freuler & Baranek, 2016; Jagger & Lederer, 2014), government reports (Ohio State University Project Team, 2011a, 2011b; NCD, 2011), and organization reports and surveys (OAR, 2010; Blue Star Families, 2013) have suggested military families with children with special needs experience barriers to therapeutic services after relocation. Military families with children with special needs, including ASD, have reported delays in obtaining services, lack of consistency and continuity of educational and therapeutic interventions, limited numbers of providers and services, and reduced quality of professionals and services (Davis & Finke, 2015a; Davis et al., 2016; Freuler & Baranek, 2016; Jagger & Lederer, 2014; Ohio State University Project Team, 2011a, 2011b; NCD, 2011; OAR, 2010). Further, Exceptional Family Member Program (EFMP) family support personnel reported relocation was an issue facing military families with children with special needs, particularly autism (Aronson, Kyer, Moeller, & Perkins, 2016).

Previous literature has also suggested military families with children with special needs experience unmet needs and limited support (Davis & Finke, 2015a; 2015b). Davis and Finke (2015a) interviewed military spouses with children with ASD and found military spouses reported a lack of external support including limited family and friend support after relocations. A survey of approximately 180 military spouses with children...
with ASD reported similar difficulties in lack of support after relocation including lack of informal and organized support (Davis & Finke, 2015b). Farrell, Bowen, and Swick (2014) used survey methods to compare military spouses who participated in family readiness groups who had children with and without special needs. These researchers found those with children with special needs reported lower network support in all areas and had lower coping success than those with children without special needs. Given the difficulties with therapeutic services and limited amounts of support, military families with children with special needs, and ASD in particular, may require specialized support services.

In recent years the Department of Defense (DoD) has attempted to reduce the negative experiences associated with relocation by implementing services for military families with children with special needs. For example, the DoD has established a program called the Exceptional Family Members Program (EFMP) operated independently by each military Service to help relocate military families to installations near therapeutic services required by the family’s member with special needs and provide case management (OAR, 2010). Some EFMP programs also provide supports for military families with family members with special needs, but these supports are not required and vary in number and scope by Service and installation location (OAR, 2010). When asked, however, military families with children with special needs have reported the EFMP program did not meet their expectations and they were not satisfied with the support provided by the program (Blue Star Families, 2013). Although the EFMP program is a good start, it may not be enough support for military families with children with ASD.
Mentorship relationships between military spouses with children with ASD may be one strategy to bridge the gap in support.

Mentor relationships can be formal or informal and provide career and/or psychosocial support to mentees (Enrich, Hansford, & Tennet, 2004; Eller, Lev, & Feurer, 2014). Kram (1983) defined the mentor relationship as having the “potential to enhance career development and psychosocial development of both individuals” through career related activities such as coaching and constructive criticism and through psychosocial related activities such as acceptance and confirmation (p. 613-614).

Mentorship relationships have been shown to be effective for a wide range of fields including education, business, medicine, and disability. For example, Enrich and colleagues (2004) analyzed articles from education, business, and medicine and found mentoring provided personal, emotional, and career support to both mentors and mentees. Mills & Mullins (2008) reported nurses who were assigned a mentor had lower attrition rates and greater cultural competency than nurses who were not assigned a mentor. Further, mentor and mentee nurses reported greater job satisfaction (Mills & Mullins, 2008). To help families who were not hearing impaired adjust to having a child who was Deaf, Watkins and colleagues (1998) assigned mentors from the Deaf community to both the family and the child. As a result, the families demonstrated more knowledge and appreciation of Deaf culture and the children who were Deaf improved expressive and receptive language abilities (Watkins et al., 1998).

Mentor relationships can be hierarchal or horizontal (Ragins & Kram, 2008). One specific type of horizontal mentor relationship is called a peer mentorship relationship. A peer mentor is an individual with similar characteristics to the target population who has
more experiential knowledge of a specific situation, behavior, or stressor (Dennis, 2003; Ragins & Kram, 2008). Peer mentors frequently complete moderate levels of training to provide emotional, informational, and affirmational support to their mentees (Dennis, 2003). Emotional support involves peer mentors expressing “caring, encouragement, attentive listening, reflection, reassurance, and [avoiding] criticism” to create a nonjudgmental relationship of acceptance (Dennis, 2003, p. 325). Informational support involves peer mentors providing experiential knowledge and resources to mentees to help them problem solve (Dennis, 2003). Affirmational support involves peer mentors encouraging persistence during stressors to improve outcomes (Dennis, 2003). Peer mentor relationships have demonstrated positive outcomes for different target populations including new mothers who are breastfeeding (Kaunonen, Hannula, & Tarkka, 2010), parents of children with disabilities (Shilling, Morris, Thompson-Coon, Ukoumunne, Rogers, & Logan, 2013), and individuals with HIV/AIDS (Stewart, Hart, Mann, Jackson, Langille, & Reidy, 2001). Further, peer mentoring programs have been used to help military service members adjust to injury (Wounded Warrior Project, 2016) and civilian life (CompeerCorps, 2015). There are also programs specific for military spouses that provide mentoring such as In Gear Career (2016). It is possible, therefore, that peer mentor programs may be one method to help support military families with children with ASD during relocations. However, limited access to peer mentors and the geographic distance between military families may present challenges within the traditional peer mentor program model.

Online peer mentor programs may offer a solution to these challenges. Bierema and Merriam (2002) defined online peer mentor programs as a computer-mediated
relationship between peer mentors and mentees that is “boundaryless, egalitarian, and qualitatively different than traditional face to face mentoring” (p. 214). Online peer mentor programs offer several advantages over traditional face-to-face peer mentoring programs. Online programs allow for greater access to mentors; reduction in geographic, cost, time, and personality barriers; equalization of status; and a record of communications while still supporting emotional, informational, and affirmational support (Ragins & Kram, 2008; Kaspirsin, Single, Single, Ferrier, & Muller, 2008). Despite these potential benefits, developers of online mentor programs must be wary of issues with Internet connectivity and reliability, computer functionality, privacy and confidentiality, miscommunication, and reliance on written communication (Ragins & Kram, 2008). Online mentorship programs have been published in the research literature and have demonstrated success using the Internet to provide peer mentoring. Cohen and Light (2000) and Light and colleagues (2007) matched adults who used augmentative and alternative communication (AAC) with young adults who used AAC to assist the young adult through life transitions. The pairs communicated via electronic mail (e-mail) and both mentors and mentees reported being satisfied with their mentoring experience (Cohen & Light, 2000; Light et al., 2007). Other studies have targeted support for new college students using e-mail (Hixenbaugh, Dewart, Drees, & Williams, 2006) and electronic chat (Smith-Jentsch, Scielzo, Yarbrough, & Rosopa, 2008). Both studies reported benefits for mentees such as increased self-efficacy, social integration, and satisfaction with the university (Hixenbaugh et al., 2006; Smith-Jentsch et al., 2008).

**Current Study**
Implementing a support for increasing military family readiness may be essential for military families with children with ASD, given the challenges they encounter during relocation. One support demonstrating positive outcomes with other target populations is peer mentoring. Further, peer mentoring programs have the ability to be provided via the Internet or telephone which allows for greater access to geographically dispersed peer mentors and mentees. This dissertation proposes four related, but distinct research aims supporting the development and evaluation of a distance peer mentoring program to facilitate relocations for military spouses with children with ASD. First, a narrative review of distance peer mentoring programs was completed to determine mentor training components for these programs. Second, the results from the narrative review were used to create an online mentor training program to instruct military spouses with children with ASD who have relocation experience in specific program protocols and support skills (e.g., active listening). Third, military spouses who completed the training were matched with military spouses with children with ASD who had little experience relocating with a child with ASD to provide informational, emotional, and affirmational support to the mentee military spouses regarding relocation. The specific research questions were:

1. What are the common components for peer mentor training in distance peer mentor programs?
2. What is the effectiveness of an online peer mentor training program on military spouse knowledge of program protocols and communication strategies?
3. What is the effect of an online peer mentorship program on PCS stress, PCS attitude, self-efficacy, and resilience for military spouses with children with ASD?
4. What are the peer experiences of military spouses with children with ASD participating in an online peer mentorship program for relocation?
Chapter 2

Narrative Review of Distance Peer Mentor Training

Mentoring is a process by which someone with more skills, experience, or knowledge provides career or personal support to someone who has fewer skills, fewer experiences, or less knowledge (Anderson & Shannon, 1988). Mentors take on a number of roles including becoming role models, teachers, guides, counselors, and friends through “an ongoing, caring relationship” with the mentee (Anderson & Shannon, 1988, p. 40). Various fields have used mentor relationships to promote career or personal growth among mentors and mentees, including health care (Mills & Mullins, 2008; Zannini, Cattaneo, Brugnolli, & Sainani, 2001), education (Hobson, Harris, Buckner-Manley, & Smith, 2012; Achinstein & Fogo, 2015; Roehrig, Bohn, Turner, & Pressley, 2008), business (Dreher & Ash, 1990; Chao & Gardner, 1992; Craig, Allen, Feid, Riemenschneider, & Armstrong, 2013), social sciences (Ragins & Cotton, 1999), and law (Riley & Wrench, 1985).

Previous literature has outlined several benefits for individuals who participate in mentoring programs. Career related benefits for mentees have included higher compensation, more promotions, greater positive attitudes towards their jobs, more commitment to their organization, and less turnover (Payne & Huffman, 2005; Craig et al., 2013; Allen, Eby, Poteet, Lentz, & Lima, 2004; Ragins & Cotton, 1999). Psychosocial related benefits for mentees have included increased self-confidence, quality of life, self-efficacy, self-esteem, and knowledge specific to their situation (e.g., side effects of a treatment), emotional support from someone who understands, and
ability to cope while also reducing loneliness (Single, Muller, Cunningham, Single, & Carlsen, 2002; Dennis, Hodnett, Gallop, & Chalmers, 2002; Pistrang, Jay, Gessler, & Barker, 2012; Rudy, Rosenfeld, Galassi, Parker, & Schanberg, 2001; Dennis, 2010). Mentors have reported benefits in the areas of career achievement and psychosocial support as well as a result of providing mentoring support. Specifically, mentors have reported increased social enjoyment, confidence, sense of pride and responsibility, leadership skills, communication skills, self-esteem, gaining a new perspective, and feeling they are making a difference (Beltman & Schaeben, 2012; Zaninni et al., 2011; Leger, Letourneau, & Weaver, 2015; Dennis 2012; Rudy et al., 2001).

The benefits realized may depend, however, on the nature of the mentor relationship (Ensher, Thomas, & Murphy, 2001; Ragins & Cotton, 1999). Mentor relationships can vary based on the context in which the mentor-mentee dyad is established (e.g., formal or informal; Chao & Gardner, 1992), the type of support provided (e.g., career, psychosocial, or both; Kram, 1983), and the mentor’s relationship/position in the organization relative to the mentee (e.g., lateral or hierarchical; Eby, 1997). Further, the nature of the relationship between the mentor and the mentee may be affected by the type of mentorship. Ensher et al., (2001) identified three different mentor types (i.e., traditional, step-ahead, and peer) based on the level of social and vocational support provided to the mentee and the mentor’s relationship relative to the mentee. These authors suggested the best method for ensuring the proper type of mentor is chosen is through discussion of the supports expected and those that can be provided (Ensher et al., 2001). When the expected supports are psychosocial in nature rather than career oriented, a peer mentor is most appropriate (Ensher et al., 2001).
Peer mentorship is a special kind of lateral mentorship where mentors and mentees share a similar set of characteristics or experiences and are considered equal in status (Dennis, 2003). Peer mentorships can be either formally or informally established and provide support for mainly psychosocial needs (Ensher et al., 2001). In peer mentorship relationships, mentors with more experience in a particular situation provide support to mentees who have less experience (Dennis, 2003). A key aspect of peer mentoring is the first-hand experience of mentors. For example, in a study by Rudy et al., (2001), individuals who had recovered from melanoma treatment mentored other individuals who were recently diagnosed and just beginning their treatment. The experiential knowledge of melanoma treatment allowed the mentors to comfort, empathize, and inform their mentees in a way doctors and family members without this shared experience could not (Rudy et al., 2001). In a peer mentorship relationship, mentors and mentees are equal with the exception of the added experiential knowledge of the mentor; there is no power differential as in hierarchical mentorships between a manager and employee, for example (Dennis, 2003). Further, emotional, informational, and affirmational support are provided by the mentor to the mentee. Mentors use active listening strategies to provide emotional support by establishing a caring, encouraging relationship environment with the mentee (Dennis, 2003). Informational support is provided when the mentor offers guidance and resources which aids the mentee in problem solving (Dennis, 2003). To offer affirmational support, the mentor validates the mentee’s feelings and reassures the mentee their efforts will help them achieve their goal (Dennis, 2003).
Peer mentor programs have targeted several areas of health, including life transitions, diseases, and psychological well-being. For example, Chapman and colleagues (2004) provided peer mentor support to new mothers for breastfeeding assistance. Women in the peer mentor condition were more likely to initiate breastfeeding and continue breastfeeding at 1 and 3 month follow up intervals (Chapman et al., 2004). In a peer support program for women with breast cancer, participants reported feeling less anxious after the program and agreed the peer support was helpful (Dunn, Steginga, Occhipinti, & Wilson, 1999). Ljundgber, Kroll, Libin, and Gordon (2010) reported most participants in a peer mentor program for spinal cord injury improved self-efficacy following the program. Additionally, a systematic review of peer support interventions for individuals with depression found these programs reduced symptoms of depression compared to usual care (Pfeiffer, Heisler, Pietee, Rogers, & Valenstein, 2011). Other peer mentor programs have been used to support people recently diagnosed with disabilities or diseases such as breast cancer (e.g., Rinehart, 1994) and HIV/AIDS (e.g., Stewart, Hart, Mann, Jackson, Langille, & Reidy, 2001) and their families such as parents of children with asthma (e.g., Flores et al., 2009) or with disabilities (e.g., Santelli, Turnbull, Marquis, & Lerner, 1997; Shilling et al., 2013).

Although peer mentorships have been successful for many health populations, not all populations have the opportunity to participate in face-to-face peer mentoring. For example, women or minorities in male and/or Caucasian dominated professions have greater difficulty finding mentors who have similar characteristics (Ragins & Kram, 2008). Individuals may have a specific disease or situation that is rare or uncommon, limiting the number of possible peer mentors. Others may be geographically isolated and
unable to find a peer mentor within a reasonable distance or may be too shy or too busy with daily life to spend time traveling and meeting face-to-face with a mentor (Ragins & Kram, 2008). In order to reach these populations, a different format is necessary to conduct the mentorship relationship.

Distance peer mentoring may be an approach to offering peer mentoring without the limitations of meeting face-to-face. In distance peer mentoring, the relationship between a mentor and mentee is established in a non-face-to-face context through technology. Telephones (e.g., Pistrang et al., 2012) and computers, specifically Internet groups (e.g., Reinke & Solheim, 2014) and electronic mail (e-mail) (e.g., Cohen & Light, 2000), have been used to facilitate distance peer mentoring relationships. Compared to traditional face-to-face peer mentorships, technology-mediated programs have been shown to support more frequent interactions between the mentor and the mentee, allow for synchronous or asynchronous communications, provide more convenient times for mentors and mentees to interact, neutralize some personality barriers or demographic variables, and provide greater access to potential mentors (Ensher et al., 2003).

While distance peer mentoring programs have some similar disadvantages to other peer mentoring programs (e.g., the quality of the match between mentor and mentee), additional challenges may result from communicating via technology and at a distance. This form of mentoring can result in an increased likelihood of miscommunication due to the lack of nonverbal and contextual cues (Ragins & Kram, 2008). As a result, distance peer mentoring requires greater competence in verbal-only or written-only communication (Ensher et al., 2003). There also may be issues of privacy and confidentiality as it is more difficult to confirm who is at the other end of the
telephone or computer (Ensher et al., 2003). People other than the mentor or mentee may be able to listen to or read the mentorship conversations. Additionally, technological malfunctions or connection difficulties may arise with either telephone or computer communication such as incorrect phone numbers, extended latency in responses, and computer breakdowns (Ensher et al., 2003). Communicating solely through technology may present with some difficulties that need to be addressed through peer mentor training.

*Current Study*

Despite researchers, mentors, and mentees suggesting training may improve the mentorship relationship (e.g., Mills, Lenon, & Francis, 2007; Cohen & Light, 2000), little research has examined the components needed for distance peer mentor training. Conceptual works by Dennis (2003) and Eby (1997) suggested peer mentors participate in program-specific training to introduce the objectives of the mentoring program, develop skills, and better understand their potential mentees. Single and Muller (2001) further recommended adding information specific to the target mentee population. Previous reviews of distance peer mentoring programs have determined the effectiveness of these programs to improve self-management for diseases (Small et al., 2013), increase breastfeeding, decrease postpartum depression, prevent smoking relapse, and help prevent low birthweight (Dennis & Kingston, 2008). Other reviews have also included other forms of distance mentoring such as telephone counseling by professionals (Hutchinson & Breckon, 2011). However, these manuscripts included literature that was not data-driven (e.g., reviews) and that did not discuss the training for distance peer mentors nor elaborate on what topics constitute the training domains. Given the
shortcomings of previous reviews and concepts papers to address the components of
training mentors to serve in distance peer mentoring roles, a review of the current
literature was needed to develop an effective distance peer mentor training. Specifically,
the research question for this review was: What are the components for peer mentor
training in distance peer mentor programs?

Method

Design

A narrative review was conducted based on guidelines from Petticrew and
Roberts (2006) and Green and colleagues (2001). Narrative reviews are comprehensive
literature reviews used to summarize aspects of the literature in a condensed, readable
format (Green et al., 2001). Further, narrative reviews are appropriate when the literature
is varied and limited (Hutchinson & Breckon, 2011). Narrative reviews are similar to
systematic reviews in that they seek to limit bias by establishing and recording search
procedures and utilizing multiple strategies to locate relevant articles (Petticrew &
Roberts, 2006; Green et al., 2001). However, the scope of narrative reviews is larger than
systematic reviews and may focus on any aspect of the literature, rather than outcomes
(Green et al., 2001). Given the breadth of the evidence for distance peer mentoring
programs, the range in designs, and the lack of consistency among training descriptions, a
narrative review methodology was warranted.

Inclusion Criteria

To be included in this narrative review, studies were required to meet the
following inclusion criteria: (1) include mentors who were adults, (2) describe a training
for an effective 1:1 distance peer mentoring program, (3) have the independent variable
be either a 1:1 distance peer mentoring program or a training for peer mentors of a 1:1 distance peer mentoring program (4) be empirical (5) be published in a peer-reviewed journal and (6) be written in English. A study was considered to have adult mentors if participants were over 18 or were enrolled in college. One-to-one distance peer mentoring programs were defined as any program establishing a computer or telephone mediated, dyadic relationship between an experienced mentor who was not a licensed professional, but who had similar characteristics to the less experienced mentee for the purpose of providing emotional, informational, appraisal support (adapted from Bierema & Merriam, 2002; Dennis, 2002). Effective programs were those which reported positive satisfaction scores from at least 50% of the mentors and mentees in the study (if these data were collected) and reported positive outcomes for the dependent variable as documented by the authors. Although the minimum was 50%, the range of participants reporting positive satisfaction scores in the included studies was 67% - 100% with an average of 89%.

An article was excluded if it (1) was a commentary, review, or not original data; (2) was not written in English; (3) was not published in a peer reviewed journal; (4) did not include a description of the training for peer mentors in the distance peer mentoring program; (5) included mentors who did not share similar characteristics to the target population (e.g., target population was individuals with breast cancer and mentors had never been diagnosed with breast cancer); (6) the distance peer mentor program was used in combination with other interventions; (7) the distance peer mentor program was group based; (8) the distance peer mentor program was not implemented at a distance (i.e., via
computer and/or telephone only); and/or (9) mentors were asked to provide focused
career or academic support.

Search Procedures

A multifaceted search strategy was developed to identify all relevant articles
(Green et al., 2001; Petticrew & Roberts, 2006; see Figure 1). First, five electronic
databases (i.e., Proquest, Pubmed, Web of Science, ERIC, Communication and Mass
Media Complete) were searched using the following set of terms: ti(telephone OR
telementor OR virtual OR “computer mediated” OR “computer-mediated” OR online OR
e-mail OR electronic OR distance OR cyber* OR web OR internet OR “video call*” OR
videoconferenc* OR remote) AND ti(mentor* OR coach OR coaching OR “peer
counsel*” OR “social support” OR "peer support" OR “peer volunteer” OR “volunteer
support” OR "volunteer counsel*" OR supporter). Articles were included in or excluded
from the larger pool based on title review and, if necessary, abstract review. Those
included in the larger pool underwent a full article review to determine article inclusion.
A full article review of 184 articles yielded 11 articles that met inclusion criteria. Second,
reference lists of the 11 articles meeting inclusion criteria were searched. Third, the
publication record of authors of more than one included study were searched. Finally, the
table of contents were manually searched for five randomly selected journals (out of 10)
from among the list of journals publishing the original 11 included articles. These
additional searches yielded an additional 4 articles; therefore, the final number of articles
included in this review was 15.
To determine the reliability of the search procedures, a second coder duplicated searches for 20% of the databases and determined which articles should be included based on title, abstract, and, if necessary, full article review. Results from the reliability procedures were compared with the original searches. Reliability was calculated to be 100%. According to Law and McDermid (2008), reliability scores of at least 80% is considered to be reliable and unlikely to occur by chance.
Data Extraction

Each article meeting the inclusion criteria was reviewed and coded according to predefined coding definitions (see Appendix A for operational definitions). Coding categories reflected the research question and included: author, year, research design, independent variable, dependent variable, number and gender of mentors, number and gender of mentees, training mode, training duration, training content, and training instruction.

Training content and training instruction were further analyzed using a modified summative content analysis approach (Flick, 2014; Hsieh & Shannon, 2005). First, the coding frame or data to be used for the main categories was selected as the training descriptions. Training descriptions was divided into training content as a “category” and training instruction as a “category” or one specific aspect of the data that was mutually exclusive from the other aspects of the data (Flick, 2014). Within the training content category, five subcategories were derived from key words or ideas. Each subcategory for training content and the category of training instruction were operationally defined. Second, I used the coding scheme to check and modify operational definitions, if needed. Third, the final operational definitions were used to code the remaining data (see Appendix B). Finally, a second coder confirmed the operational definitions through interrater reliability procedures.

Reliability of the Data Extraction

Interrater reliability was calculated to ensure accuracy of the data extraction, training content, and training instruction analysis. A second coder trained in the operational definitions of the data extraction, training content, and training instruction
categories coded a random sample of 20%, 22% and 22% of the data, respectively. Reliability was calculated to be 91% for data extraction, 100% for training content and 100% for training instruction. All disagreements were discussed and resolved. Data with reliability calculations of at least 80% is considered to be unlikely to occur by chance (Law & McDermid, 2008).

Results

The multi-faceted search strategy yielded 15 articles that met the inclusion criteria established for this study. Of the 15 articles, there were three cases in which multiple articles were published about same study (i.e., the same intervention during the same data collection period). For the purposes of this review, all of the articles in these groupings were included, but each grouping was considered one study. Information from all papers in the three groupings was included in the data extraction for this study. For example, Dennis et al., (2002) and Dennis (2002) described the same study in which peer mentors were trained to provide telephone-based support to new mothers who started breastfeeding; however, each paper presented some unique data. Dennis et al., (2002) provided information about the research design, independent variable, dependent variable, participants (i.e., mentors and mentees), training variables, main outcome, and mentee satisfaction, but Dennis (2002) added peer mentor satisfaction data to help confirm program effectiveness. Both articles were reported in a single row to represent their description, albeit from different angles, of the same investigation. A similar technique used for the article group Dennis et al., (2009) and Dennis (2010, 2012) as well as Pistrang et al., (2012; 2013). Throughout this review, the article published first in the grouping will be referenced when discussing methodological aspects of the study. For
example, when discussing information related to the method for the studies Pistrang et al., (2012; 2013), only Pistrang et al., (2012) will be cited.

One article (Light et al., 2007) reported two different studies in one manuscript. Since each study in Light et al., (2007) had separate independent variables, dependent variables, and different participants, the studies are represented in different rows (i.e., Light et al., 2007a and Light et al., 2007b) in Table 1 and Table 2. Therefore, although 15 articles were included in this review, there were only 12 unique research studies reported across these papers.

**Design**

The 12 studies utilized several different research designs including group (7), qualitative (3), and single subject (2) to examine the relationship between independent and dependent variables. Although varying in their scope and target populations, most studies (10) reported the independent variables as a distance peer mentor support program. Only two studies reported in the same manuscript (Light et al., 2007a; 2007b) reported the independent variable as the training for the mentors in the distance peer mentor support program.

Studies reported a wide range of dependent variables including depressive symptoms (e.g., Dennis 2003), breastfeeding (e.g., Dennis et al., 2002), social support (e.g., Rudy et al., 2001), abstinence from smoking (e.g., Solomon & Flynn, 2005), adherence to medication (Boardman et al., 2014), participant experiences (e.g., Pistrang et al., 2012), use of sociorelational strategy (Light et al., 2007a), and use of collaborative problem solving strategy (Light et al., 2007b). These dependent variables were measured
via standardized assessments, self-reports on surveys or interviews, observation of participant performance and researcher developed scales.

Table 1

Data Extraction from Articles Included in the Narrative Review

<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Research Design</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boardman et al., (2014)</td>
<td>Group</td>
<td>Distance peer mentoring</td>
<td>Medication adherence</td>
</tr>
<tr>
<td>Dennis (2003)</td>
<td>Group</td>
<td>Distance peer mentoring</td>
<td>Depressive symptoms</td>
</tr>
<tr>
<td>Dennis et al (2002)</td>
<td>Group</td>
<td>Distance peer mentoring</td>
<td>Breastfeeding</td>
</tr>
<tr>
<td>Dennis et al (2009)</td>
<td>Group</td>
<td>Distance peer mentoring</td>
<td>Depressive symptoms</td>
</tr>
<tr>
<td>Dennis (2010)</td>
<td>Group</td>
<td>Distance peer mentoring</td>
<td>Social Support</td>
</tr>
<tr>
<td>Hixenbaugh et al (2004)</td>
<td>Group</td>
<td>Distance peer mentoring</td>
<td>Depressive symptoms</td>
</tr>
<tr>
<td>Letourneau et al (2014)</td>
<td>Single subject</td>
<td>Training for distance peer mentor</td>
<td>Use of sociorelational strategy</td>
</tr>
<tr>
<td>Light et al (2007a)</td>
<td>Single subject</td>
<td>Training for distance peer mentor</td>
<td>Use of collaborative problem solving strategy</td>
</tr>
<tr>
<td>Pistrang et al (2012)</td>
<td>Qualitative</td>
<td>Distance peer mentoring</td>
<td>Social support</td>
</tr>
<tr>
<td>Rudy et al (2001)</td>
<td>Group</td>
<td>Distance peer mentoring</td>
<td>Social support</td>
</tr>
<tr>
<td>Solomon &amp; Flynn (2005)</td>
<td>Qualitative</td>
<td>Distance peer mentoring</td>
<td>Smoking abstinence</td>
</tr>
<tr>
<td>Solomon et al (1996)</td>
<td>Qualitative</td>
<td>Distance peer mentoring</td>
<td>Smoking abstinence</td>
</tr>
</tbody>
</table>
Participants

The participants in these studies consisted of two categories – mentors (those individuals who provided mentorship) and mentees (those individuals who received mentorship). All studies provided at least some demographic information about the mentors. Mentors, as per the inclusion criteria and definition of peer mentor, had some characteristics or experiences similar to the mentees. For example, mentors in Rudy et al., (2001) had to be a former melanoma patient to qualify as a mentor. Other characteristics listed across the studies were history of and recovery from postpartum depression (Dennis, 2003; Dennis et al., 2009; Letourneau et al., 2014), successful breast-feeding experiences (Dennis et al., 2002), university student experience (Hixenbaugh et al., 2004), attainment of meaningful life goals as individuals with cerebral palsy and use augmentative and alternative communication (AAC)(Light et al., 2007a; 2007b), completion of gynecological cancer treatment (Pistrang et al., 2012), successful smoking termination (Solomon & Flynn, 2005; Solomon et al., 1996) and self-reported high levels of oral antipsychotic medication adherence (Boardman, McCann, Kerr, 2014).

Over the 12 studies, there were 458 mentors recruited and 406 were matched with 1,514 mentees. Out of the studies describing participant gender, most mentors (95.5%) and mentees (97.6%) were female; however, seven studies were related to primarily or specifically female experiences (e.g., breastfeeding). Two studies listed the number of mentors recruited, but did not specify their gender (Rudy et al., 2001; Boardman et al., 2014). Two studies (Light et al., 2007a; 2007b) did not specify the number of mentees, although this was likely because the intervention and dependent variable were related to
training the mentors and did not include measurement related to the mentees. One study
did not specify the gender of all of the mentees (Hixenbaugh et al., 2004).

Table 2

Data Extraction from Articles Included in Narrative Review Cont.

<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Peer Mentor Demographics</th>
<th>Peer Demographics (of those matched with a mentor)</th>
<th>Training Mode</th>
<th>Training Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dennis (2003)</td>
<td>F(19)</td>
<td>F(20)</td>
<td>In-person, manual</td>
<td>4 hours</td>
</tr>
<tr>
<td>Dennis et al (2002)</td>
<td>F(58)</td>
<td>F(132)</td>
<td>In-person, manual</td>
<td>2.5 hours</td>
</tr>
<tr>
<td>Dennis (2002)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dennis et al (2009)</td>
<td>Recruited: F(204)</td>
<td>F(328)</td>
<td>In-person, manual</td>
<td>4 hours</td>
</tr>
<tr>
<td>Dennis (2010)</td>
<td>Matched: F(175)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dennis (2012)</td>
<td>F(19), M(6)</td>
<td>98</td>
<td>In-person</td>
<td>2 sessions</td>
</tr>
<tr>
<td>Letourneau et al (2014)</td>
<td>F(24)</td>
<td>F(37)</td>
<td>In-person, manual</td>
<td>8 hours</td>
</tr>
<tr>
<td>Light et al (2007a)</td>
<td>F(3), M(3)</td>
<td>NA</td>
<td>Online</td>
<td>&gt;20-29 hours</td>
</tr>
<tr>
<td>Light et al (2007b)</td>
<td>F(7), M(8)</td>
<td>NA</td>
<td>Online</td>
<td>&gt;20-29 hours</td>
</tr>
<tr>
<td>Pistrang et al (2012)</td>
<td>F(16)</td>
<td>F(33)</td>
<td>In-person</td>
<td>2 hours</td>
</tr>
<tr>
<td>Pistrang et al (2013)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rudy et al (2001)</td>
<td>Recruited: 42</td>
<td>F(14), M(15)</td>
<td>Telephone, written material</td>
<td>15 minutes</td>
</tr>
<tr>
<td></td>
<td>Matched: 29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solomon &amp; Flynn (2005)</td>
<td>F(29)</td>
<td>F(737)</td>
<td>In-person, manual</td>
<td>9 hours</td>
</tr>
<tr>
<td>Solomon et al (1996)</td>
<td>F(20)</td>
<td>F(72)</td>
<td>In-person</td>
<td>5 hours</td>
</tr>
<tr>
<td>Boardman et al., (2014)</td>
<td>6</td>
<td>F(9), M(19)</td>
<td>In-person, manual</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

**Training**
All studies, as per the inclusion criteria, described the mentor training process. For the purpose of this review, training mode, training duration, training content, and training instruction were examined. Training mode was operationally defined as the way(s) in which the training and related information was delivered to the mentors. The majority of the studies (9) reported an in-person training mode for mentors. Although all studies in this review were supporting distance peer mentor programs, only three studies explicitly used distance methods as a training mode for the mentors. Light et al., (2007a; 2007b) provided mentor training on a website that tracked peer mentor training progress. Rudy et al., (2001) trained mentor participants via telephone. After mentors received a packet of written information, counselors called the mentors to reinforce information from the packet and answer questions from the mentors (Rudy et al., 2001). Seven studies reported providing mentors with a training manual, pamphlet, or other written information to use as a reference during the mentorship relationship. In every case, the manual was a supplement to other training modes and not the sole method for delivering mentorship information.

Training duration was operationally defined as the time required to complete the training as reported by the author. The time reported for mentors to complete the designated training varied across studies. Nine studies reported the total training time in hours or minutes. The average training time across these nine studies was 4 hours, with a range of 15 minutes to 9 hours. Two studies (Light et al., 2007a; 2007b) reported training time ranges for both independent variables combined rather than total training time for each separately. Most mentors (67%) in Light et al., (2007a; 2007b) required fewer than 20 hours to complete the training for both studies; however, 27% of mentors required 20-
29 hours, and 1 mentor required more than 40 hours to complete the required training. Light and colleagues (2007a; 2007b) hypothesized the large variation in training time was, in part, influenced by the method the mentors used to access and navigate the website and formulate their responses (i.e., augmentative and alternative communication). One study, Hixenbaugh et al., (2004), provided the number of sessions the mentors attended (2), but did not report information regarding the length of the sessions.

The training content was divided into five categories: peer support, support skills, confidentiality, special topic information, and communication mode specific information. Additional information regarding the categories, frequencies, and examples is provided in Table 3.

Table 3

Subcategories, Frequencies and Examples of Training Content

<table>
<thead>
<tr>
<th>Training Content Subcategory</th>
<th>Number of Studies</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Support</td>
<td>8</td>
<td>“definition of peer support”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“what mentoring is”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“active listening skills”</td>
</tr>
<tr>
<td>Support skills</td>
<td>10</td>
<td>“asking open ended questions”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“general breast feeding principles”</td>
</tr>
<tr>
<td>Special Topic Information</td>
<td>6</td>
<td>“professional services available”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“telephone support skills”</td>
</tr>
<tr>
<td>Mode Specific Information</td>
<td>6</td>
<td>“logistics of telephone support”</td>
</tr>
<tr>
<td>Confidentiality</td>
<td>7</td>
<td>“danger signals”</td>
</tr>
</tbody>
</table>
The first category, information about peer support, was defined as any content related to the explanation of peer support such as peer support definitions, roles, benefits, and characteristics. Eight of the studies listed information about peer support as content in the training provided to mentors. Content in this area commonly reflected definitions of peer support. For example, Dennis et al., (2002) stated part of the training contained “volunteer role description.” Hixenbaugh et al., (2004) taught mentors “what mentoring is” and “what mentoring is not.” Other content in this area included descriptions of the characteristics mentors should embody such as being accepting (Rudy et al., 2001) and positive (Hixenbaugh et al., 2004) while not offering too much advice (Rudy et al., 2001). Two studies included training for mentors on the benefits of providing peer support (Dennis 2003; Dennis et al., 2009).

Support skills were defined as content related to helping the mentor provide support to the mentee. This content commonly included teaching mentors how to provide affirmational support, emotional support, and informational support to their mentees. Ten of the twelve studies included teaching support skills to the mentor as part of their training. Over half of the studies (7) specifically mentioned teaching a communication skill related to providing affirmational support. These included learning how to show empathy (Hixenbaugh et al., 2004; Pistrang et al., 2012), validating feelings and experiences (Solomon & Flynn 2005), developing relationships (Dennis et al., 2009; Letourneau et al., 2014; Dennis 2003), and understanding supportive interactions (Pistrang et al., 2012; Solomon & Flynn 2005; Hixenbaugh et al., 2004). Six studies
included support skills related to teaching the mentor provide emotional support to the mentee. Authors reported teaching active listening skills (Rudy et al., 2001; Hixenbaugh et al., 2004; Light et al., 2007a; Pistrang et al., 2013), question asking (Light et al., 2007a; Solomon & Flynn, 2005), and guidelines regarding the overuse of advice giving (Pistrang et al., 2012) and criticizing the mentee (Light et al., 2007a). Four studies explicitly taught informational support skills in their trainings. Most often mentors were trained to use these skills to support problem solving (Light et al., 2007b; Solomon & Flynn, 2005; Boardman et al., 2014) or self-disclosure (Pistrang et al., 2012).

Confidentiality was defined as any content related to ethical issues such as confidentiality, participant safety and risk, and referrals to medical professionals. Seven articles reported teaching mentors aspects of confidentiality. Most frequently, trainings addressed the limits of confidentiality and when to refer mentees to health care providers (Pistrang et al., 2012; Hixenbaugh et al., 2004; Rudy et al., 2001; Dennis 2003; Dennis et al., 2002; Dennis et al., 2009). Other studies trained mentors to recognize danger signals (Hixenbaugh et al., 2001), safe ways to respond to situations of mentee reported self-harm (Letourneau et al., 2014), and when to turn to the research team for advice (Pistrang et al., 2012).

Content in trainings was coded as special topic information when it related to the provision of information regarding the specific common characteristic of mentors and mentees in the peer mentorship program. Half of the studies (6) provided information related directly to the common characteristics the mentors and mentees shared. For example, Solomon et al., (1996) and Solomon and Flynn (2005) provided information about how women quit smoking and smoking concerns mentees may bring up during
mentors. Dennis et al., (2009), Dennis (2003) and Letourneau et al., (2014) provided information about postpartum depression in their training. Four authors provided lists of professional services mentors could offer to mentees, if necessary, for additional information or help (Letourneau et al., 2014; Dennis, 2003; Dennis et al., 2002; Solomon et al., 1996).

Content was coded as communication mode specific support was defined as any content related to the explanation of skills, techniques, or logistical support through a specific mode of communication. Six of the studies reported providing explicit information to mentors about mentoring at a distance. Most authors were generic in their description of these skills, stating “telephone support skills” (Dennis et al., 2009; Dennis et al., 2002; Dennis 2003) or “telephone counseling skills” (Solomon et al., 1996). However, Boardman et al., (2014) mentioned explicitly providing information about “how to contact a consumer by telephone” as part of their mentor training protocol. Other authors listed troubleshooting or solving common logistical issues related to providing peer support at a distance (Pistrang et al., 2012; Solomon & Flynn, 2005; Solomon et al., 1996).

Training instruction was defined as any content related to techniques used to teach peer mentoring content. Eight studies overtly described teaching strategies use to help the mentors learn the content of the training. Role play (Dennis 2003; Dennis et al., 2002; Dennis et al., 2009) was the most commonly mentioned strategy, followed by reflection (Pistrang et al., 2012; Hixenbaugh et al., 2004), problem solving (Dennis 2003; Dennis et al., 2002), case studies (Letourneau et al., 2014; Pistrang et al., 2012), and strategy instruction (Light et al., 2007a; 2007b).
Discussion

The goal of this narrative review was to review the literature on distance peer mentor programs to inform future researchers and program developers of common components of training for these programs. The results of the multi-element search covering 5 electronic databases, references lists, author publication records, and manual journal searches yielded 15 articles detailing 12 separate studies. Overall, the trainings described in the research literature to date used multiple delivery modes and instruction strategies to teach training content related to 5 areas of information to mostly female peer mentors over an average of 4 hours.

Although each of the programs in this review were effective in achieving all or part of the desired outcomes for mentees, only two studies directly examined the mentor training. Light et al., (2007a; 2007b) reported the results of two investigations determining the effectiveness of an online training to teach sociorelational and collaborative problem solving strategies to mentors and found the online training to be effective or very effective (as determined by PND; Scruggs & Mastropieri, 1998) for 20/21 participants in total. Results from Light et al., (2007a; 2007b); therefore, suggested online peer mentors training may be an effective method for teaching peer mentors. However, as Light et al., (2007a; 2007b) were the only studies to empirically investigate the training for mentors in distance peer mentoring programs, additional research is needed.

Mentors in the 12 included studies were mostly female, as were their mentees. Although this is due, at least in part, to the situations surrounding the mentorship (e.g., breast cancer treatment; postpartum depression) being primarily specific to women, there
may also be differences in how females and males seek out and respond to peer mentoring (Ragins & Kram, 2008). A systematic review by Mo, Malik, & Coulson (2009) found studies examining single-sex online health groups contained differences in content depending on whether the group contained males or females. Female groups focused more on sharing personal experiences and support (Mo et al., 2009). The male groups, on the other hand, focused on sharing medical or treatment information (Mo et al., 2009). Further, when comparing electronic chat and face-to-face mentor relationships, Smith-Jentsch et al., (2008) reported mentees in the electronic chat condition received less psychosocial and career support when paired with male mentors than with female mentors. They also noted male mentors were not aware of their mentoring ineffectiveness during the electronic condition (Smith-Jentsch et al., 2008). Given these possible differences in male and female communication and support, results from this narrative review may only be relevant for female peer mentor training and mentorship programs. Additional research on the differences between female and male peer mentorship relationships and corresponding training is needed.

Another interesting finding from the current narrative review was the number of mentors recruited was greater than the number matched with mentees. One possible reason may be attrition in mentors after receiving training (Pistrang et al., 2013). It is also possible peer mentors did not pass the training or were not considered ready to become mentors even after the training. Another possibility for the discrepancy may be a result of lack of appropriate matches between available mentors and the mentees who volunteered for the study (Pistrang et al., 2012; Dennis et al., 2009). In several studies, mentors and mentees mentioned the match/compatibility between the mentor and mentee as important
(Dunn et al., 1999; Rudy et al., 2001; Bierema & Merriam, 2002; Single & Muller, 1999); however, the crucial match characteristics are unknown (Single & Muller, 1999). The difference in mentors completing the training and those being matched with mentees suggests training more mentors than anticipated may be beneficial and necessary to enable researchers to better consider mentor and mentee compatibility, account for attrition, and/or insufficient training gains.

Multiple training modes were used to provide instruction in 7 of 12 studies. The multiple modes included a manual or other written material as a supplement to in-person or over the phone training. Presenting adult learners with multiple ways to learn content is supported by the literature on adult learning (Knowles, Elwood, & Swanson, 2005). However, only three studies reported training mentors at a distance using the same mode of communication in which the mentorship program would be conducted (Rudy et al., 2001; Light et al., 2007a; 2007b). It may be beneficial for researchers to conduct training in the same mode as the mentor program to provide the mentors with practice in a real scenario. Adult learning theory suggests this helps adults learn concepts (Knowles et al., 2005). Additionally, researchers would have an opportunity to observe how the mentor responds within the communicative environment they will use to provide mentorship.

For the nine studies reporting total training duration, the average time required for mentors to complete the training was 4 hours; however, the range was 15 minutes to 9 hours. There is great variability in training time among studies with little evidence to suggest how much time is needed to effectively train mentors. In light of this variability, researchers and program developers should be cautioned that providing too much training may take away from the peer quality of the mentor (Dennis, 2003). Dennis (2003)
suggested a “moderate” amount of training would be sufficient for peer mentors to gain necessary skills and orientation to the program without accruing “paraprofessional” status. Although there is currently no empirical evidence to determine when this transition occurs, researchers have hypothesized too much training would reduce the sense of equality in the mentorship relationship (Dennis, 2003). For example, peer mentors who receive extensive training in breastfeeding may be less natural in the way they provide support and be viewed by their peers as professionals rather than fellow mothers. Further, peer mentors who receive extensive training may attempt to provide counsel beyond their scope of practice rather than referring their peers to professional services. To determine if and/or when training interrupts the peer status of peer mentors, additional research needs to be completed.

The five categories of training content identified in this review reflect similar themes to previous literature. Eby (1997) stated training should focus on “developing and sustaining mentoring relationships…what to expect from mentees before, during, and after organizational change…how to identify warning signs of serious stress-related problems…and appropriate steps to take to obtain professional help for mentees who are having difficulty coping with the change process.” (p.140). However, this review provided more detail about the specific content delivered in each of those and other areas. The first category was information about peer support which contained definitions of peer support, peer mentor role descriptions, benefits associated with peer mentoring, and characteristics of mentors. This category of information helped the mentor to understand their role as a peer mentor and the effect mentoring may have on others and themselves.
A conceptual mentor paper by Dennis (2003) also suggested peer mentors should be educated on their role to provide adequate support.

The most common of the five areas of content was support skills which was included in 11 out of 12 of the training programs in this review. The support skills taught to the mentors were related to the three types of support peer mentors provide (i.e., affirmational, emotional, informational). Potential mentors already understand their mentees on a fundamental level because they share salient characteristics with their mentees, but mentors may need training to put this understanding into a mentoring context. The support skills training helps the mentors to shape their first-hand experiences into information helpful for mentees (Dennis, 2003). Support skills such as active listening, empathy, and self-disclosure assist the mentor in developing a caring, trusting relationship with the mentee that cultivates the environment for the peer to perceive support (Dennis, 2003). Mentees likely receive some emotional, affirmational, and informational support from others within their social network; however, peer mentors are in a unique position to be able to provide all three.

Seven authors mentioned teaching the mentors about confidentiality issues such as how and when to refer mentees to professional health care services, and the limits of confidentiality (e.g., Hixenbaugh et al., 2004). In many cases, peer mentors may be discussing stressful situations with their mentee. Since peer mentors, by definition, are not medical or mental health providers, they must know when and how to refer their mentee to a medical professional if the need arises.

Trainings for peer mentors also included situation specific information. For example, Dennis et al., (2009) provided information about postpartum depression to
mentors during their training for a peer mentor program for mothers with postpartum depression. In some studies, peer mentors have suggested providing even more information than what was originally given (Dennis, 2002; Dennis 2012; Pistrang et al., 2013). While peer mentors have first-hand experiential knowledge, they may not be aware of the science behind the disease, disorder, or situation at the center of their mentoring. Providing additional information and lists of local professional services related to the mentoring situation supplements the peer mentor’s current knowledge.

Information related to the medium specific category was less detailed. Half of the studies reported spending time during mentor training on content specific to the medium in which the mentors would be contacting their peers. Authors frequently reported the instruction provided generically. For example, mentors were taught “telephone support skills” by Dennis et al., (2009). Given some of the disadvantages of distance communication such as the increased risk of miscommunication due to reliance on verbal and/or written communication (Ragins & Kram, 2008), training to reduce some of these barriers is needed.

Some training instruction strategies to help mentors learn the training content were mentioned in the articles as well. Researchers specifically indicated role playing, personal reflection, problem solving, case studies, and strategy instruction as methods used to help peer mentors understand and retain the information from the training. Providing instruction using multiple strategies is a key component to adult learning (Cercone, 2008). Specifically, using methods such as role playing and case studies allow the learners to apply skills they learned immediately and in a real-life context (Knowles et al., 2005). Application of skills in real-life contexts reinforces the important of the
skills and provides opportunities to practice them in a simulated, but less risky environment (Frey & Alman, 2003; Cercone, 2008; Huang, 2002).

Limitations

The current study has several limitations. First, ten of twelve articles described peer mentor training as part of the method of their study and not as the independent variable. Therefore, the findings of this review are narrative rather than definitive. Quantitative results from Light et al., (2007a; 2007b) reporting the mentor training as an independent variable and qualitative results from other studies including training in their programs were encouraging and supported the need for peer mentor training prior to implementing a distance peer mentoring program; however, more empirical research should be conducted. Second, the operational definitions for peer mentors, distance peer mentoring, etc. used in this review may be different from other conceptualizations. There is a vast literature base on mentoring and a growing literature on distance peer mentoring, but there are varying definitions of these ideas. Attempts were made to find articles with different terminology by including multiple search terms for peer mentoring; however, other operational definitions of key terms may lead to a different study composition than represented in this review. Third, this review only included peer reviewed literature written in English. It is possible other distance peer mentoring training and/or programs exist in the grey literature or are written in another language inaccessible to the author.

Conclusion

The literature on training for distance peer mentors is limited, despite authors expressing the necessity of training (e.g., Dennis, 2003; Single & Muller, 2001). Results from this review suggested several considerations for distance peer mentor training
programs. First, although empirical data on training effectiveness is sparse, data from two studies evaluating a mentor training program suggest developing effective training is (1) possible and (2) can be accomplished through online methods. Second, many articles in this review mentioned using multiple modes to deliver the training content to mentors. Given the agreement with adult learning principles (Knowles et al., 2005), it is recommended researchers and program developers consider multiple modes in training development. Third, the time required to teach the content varied across studies with most ranging from 15 minutes to 9 hours. There are few guidelines regarding training time; however, training should not be so lengthy as to reduce the “peernees” of the peer mentor (Dennis, 2003). Fourth, training content should include information about peer support, support skills for peer mentoring, confidentiality, information related to the special mentoring topic, and medium specific support while utilizing different instructional strategies to reinforce concepts. Fifth, researchers and program developers may find it useful to train more mentors than they anticipate needing to allow opportunities for dropouts, better mentor-mentee matches, and insufficient training outcomes. Finally, it may be beneficial to consider the impact of gender when training distance peer mentors as males and females may require different content emphasis.
Chapter 3

Effectiveness of Distance Peer Mentor Training

Military families with children with autism spectrum disorder (ASD) experience challenges related to being a military family and challenges related to being a family who has a child with ASD; and during relocation, these challenges result in a build-up of stressors (Davis & Finke, 2015a). Qualitative studies of the experiences of military spouses with children with ASD found spouses reported delayed access to therapeutic services, limited providers accepting their insurance, a lack of IEP continuity, emotional and behavioral reactions from their children with ASD, and increased stress as a result of relocating (Davis & Finke, 2015a; Davis et al., 2016; Freuler & Baranek, 2016). Some of these difficulties have been echoed in government reports (e.g., Ohio State University Project Team, 2011) and in interviews with military family support personnel (Aronson et al., 2016). Military spouses with children with ASD have stated relocations remove them from the community they have established and leave them feeling isolated (Davis & Finke, 2015a; Freuler & Baranek, 2016). Russo and Fallon (2001) reported nearly a third of military families with children with special needs have moderate to large amounts of stress related to relocation.

Military families with children with ASD may require additional social supports to help mitigate stress and navigate the difficulties of experiencing a permanent change of station (PCS) with a child with ASD. Military parents have emphasized the importance of parent-to-parent groups and the community as a source of support for military families (Lonner, Hempleman, & Longhi, 1994). Similarly, Freuler & Baranek (2016) reported
social supports, especially online networks, were protective factors for military families with children with ASD. However, military families with children with disabilities may have limited opportunities to participate in the social networks of parent-to-parent groups because of characteristics separating them from other populations of parents (Freuler & Baranek, 2016; Lonner et al., 1994).

One support that may be an effective way to meet support needs of military families with children with ASD is distance peer mentoring. In distance peer mentoring, the mentor has characteristics similar to the mentee and provides emotional, affirmational, and informational support through technology-mediated communication (Dennis, 2003). Emotional support helps create a positive, accepting atmosphere by actively listening and expressing care and concern for the mentee (Dennis, 2003). Affirmational support provides encouragement and community by validating experiences and promoting self-reflection by the mentee (Dennis, 2003). Informational support informs mentees of resources and possible pathways to pursue by sharing experiences (Dennis, 2003). Other parent groups have reported benefits from participating in distance peer support groups. For example, reviews of online social support groups for parents summarized benefits such as sharing personal experiences, receiving empathy and encouragement, and sharing feelings (Doty & Dworkin, 2014; Niela-Vilen, Axelin, Salantera, & Melender, 2014). Further, other parents of children with ASD have reported benefits of online social support such as encouragement, sharing resources and experiences, and having a connection with others who are similar (Huws, Jones, & Ingedew, 2001).
Some advantages of distance peer mentoring may be particularly beneficial for military spouses with children with ASD. One advantage of distance peer mentoring is that it is “boundaryless” (Bierema & Merriam, 2002). In distance peer mentoring relationships, mentors and mentees have the ability to communicate at any time and from anywhere (Bierema & Merriam, 2002). Communication not limited to time and location may be particularly important for military spouses with children with ASD. Military families can be located in any state in the U.S. and in three continents (Braisure et al., 2012) and may not have another military spouse with a child with ASD at their specific installation (Lonner et al., 1994). Being able to communicate with mentors at a convenient time is important for both mentors and mentees as parents of children with ASD have reported spending extensive amounts of time in caregiving and therapy activities (Myers et al., 2009). Additionally, being able to communicate at a convenient time is important for both mentors and mentees as military spouses may live in different time zones. Another advantage is the egalitarian status achieved by distance peer mentoring (Bierema & Merriam, 2002). Distance peer mentoring reduces the impact of demographic variables such as race, gender, and age (Bierema & Merriam, 2002). For military spouses, equal status on demographic variables may help to neutralize the impact of military rank which can be a social status marker (Hall, 2008).

Training mentors is a crucial part of distance peer mentoring programs to prepare mentors for their role (Single & Muller, 2001; Dennis, 2003). Single and Muller (2001) suggested mentor training should focus on providing information mentors need to support mentees on issues relevant to them and information about troubleshooting common mentoring issues. Dennis (2003) added the idea of introducing the goals of the program
to help provide structure to the mentorship program. The likelihood of miscommunication may be greater in distance peer mentoring because of the lack of nonverbal cues present in face-to-face communication and the reliance on text-based communication (Ensher et al., 2003). Mentors may need to be taught communication strategies to help compensate for the reduction in other social cues. Further, family members of children with ASD have a greater likelihood of having a communication impairment themselves, potentially influencing distance as well as face-to-face communication (Wheelwright, Auyeung, Allison, & Baron-Cohen, 2010). There may also be confidentiality issues since verification of the user is more difficult and there is a physical record of interactions (Ensher et al., 2003). Mentors may need training on how to maintain privacy while still performing mentorship actions such as sharing experiences. Several successful distance peer mentor programs have been created to help individuals with a number of health concerns including smoking, breastfeeding, postpartum depression, and others have included peer mentor training as part of another, larger program (e.g., Solomon & Flynn, 2005; Dennis et al., 2009; Dennis et al., 2002). However, little peer reviewed evidence exists for creating an effective distance peer mentoring training program for people in military families.

A narrative review by Davis (chapter 2) summarized the peer reviewed literature involving peer mentor training for distance peer mentoring programs and reported common practices relative to training duration, mode, content, and instruction. The average training time across the studies was 4 hours; however, there was a large range of 15 minutes to 9 hours (Davis, chapter 2). While there is no standard time requirement, there should be a balance between training mentors to be competent when supporting
mentees and maintaining “peerness” (Dennis, 2003). If peer mentors receive too much training, they may take on a semi-professional role and provide guidance on situations outside of their knowledge base or jeopardize their ability to be a “peer” and relatable to their mentee. However, if peer mentors review too little training, they may not be prepared to fulfill their responsibilities as mentors.

While most of the studies in Davis (chapter 2) provided training in-person, three studies conducted training via a distance modality by telephone (Rudy et al., 2001) and by website (Light et al., 2007a, 2007b). Training mentors for a distance peer mentoring program through the medium in which they will communicate with their mentees provides additional practice in a scenario similar to what they will experience as a mentor. Further, some media, specifically Internet-based, allow multiple mentors to participate in the training at one time and complete the training at their own pace (Single & Muller, 2001). Internet-based training extends the reach of the training to include more mentors and increases the implementation prospects across greater distances. Given military families may be located in numerous places across the world (Military Family and Community Policy, 2013), an Internet-based training provides the greatest opportunity to include the most families.

The narrative review by Davis (chapter 2) also outlined five major content areas effective peer mentoring trainings for distance peer mentoring programs included in the training. First, peer mentor training should include information about the roles and responsibilities of peer mentors such as what peer mentoring is and is not. Second, support skills to enhance the peer’s ability to provide emotional, affirmational, and informational support to mentees should be taught. Third, information specific to topics
relevant to the purpose of the mentorship program mentoring should be included. Fourth, content about providing support on the communication medium to be used in the program should be included in sections of the training. The final content area focuses on confidentiality and potential risks and should be outlined in the training to enhance privacy and safety. However, researchers must also take teaching strategies for this content into account.

Training developers should consider training instruction in conjunction with how the training will be delivered. Knowles and colleagues (2005) suggested six principles to consider when providing instruction and developing materials for adult learners which have since been applied to the online environment by other authors (e.g., Huang, 2002; Cercone, 2008; Frey & Alman, 2003). First, training program designers should consider what the adult learner’s “need to know” (Knowles et al., 2005). Adult learners are more likely to absorb content if information is provided regarding what will be learned, why it will be learned, and how it will be learned. In the online environment, instructors can establish a course structure by providing a syllabus or menu structure outlining the topics of the training, providing a rationale for each topic, and keeping consistent programming and guidelines throughout the training (Frey & Alman, 2003; Cercone, 2008).

Second, training program designers should consider the adult learner’s ability to self-direct their learning (Knowles et al., 2005). Adult learners are able to budget their time and engage in the material to the depth of their interest. Frey & Alman (2003) and Cercone (2008) suggested building flexibility into the course such as providing multiple entry/exit points and allowing self-pacing. They also recommend providing text signals to let the adult learner know when a topic will be longer and take more time (Frey & Alman,
Other ways to enhance self-directness for adult learners is to allow flexibility in course content. For example, instructors could offer a choice of assignments, add website links for additional content, and incorporate a search/find function for quick reference (Frey & Alman, 2003; Cercone, 2008).

Third, training program designers should consider the adult learner’s prior experiences for content and materials (Knowles et al., 2005). Adults have a wealth of previous experiences that help to shape their learning and biases. Capitalizing on these experiences may help adult learners draw connections between their lives and the information they are learning (Huang, 2002). Activities should be designed allowing the learner to show what they know (Frey & Alman, 2003). Findings from Ke and Xie (2009) support the use of multiple types of questions in training programs, including open-ended questions where learners have the opportunity to display their knowledge. Participants in the study who were in the close-ended and open-ended question combined groups had the highest reported satisfaction and learning outcomes (Ke & Xie, 2009).

Fourth, adult learners will be ready to learn when their life circumstances support the opportunity (Knowles et al., 2005). Adult learners typically have work and life responsibilities that may preclude their participation or completion in online training within a deadline too constricting. Instructors in an online environment should allow flexibility in the due date or time frame for training completion (Frey & Alman, 2003; Cercone, 2008). Further, work and life responsibilities may limit the amount of time per session available for learning. The training should be divided into smaller units to allow learners to complete smaller sections at one time without rereading sections of the training (Cercone, 2008).
Fifth, adult learners prefer problem-solving related to applicable contexts (Knowles et al., 2005). In a constructivist and adult learning approach, real-world examples are used to help the task be more authentic and then provide opportunities for the learner to reflect on their response (Huang, 2002). Online training programs should provide examples of realistic situations such as case studies where adult learners are able to directly apply the skill or knowledge they have learned (Frey & Alman, 2003; Cercone, 2008; Huang, 2002). Davis (chapter 2) noted this as a feature of many trainings for distance peer mentoring programs. Specific examples of strategies used were case studies, role playing, reflection, and problem solving (Davis, chapter 2). Feedback should also be provided on practice questions to aid in reflection (Frey & Alman, 2003; Cercone, 2008).

Finally, adult learners have motivation to learn (Knowles et al., 2005). A possible deterrent to that motivation may be enjoyment of the content (Knowles et al., 2005). When designing an online training, instructors should consider the impact of aesthetics on enjoyment. To make learning more enjoyable, instructors should use clear, bold colors and fonts for text, use a variety of visuals such as graphs, charts, and pictures, and provide content relevant to different learning styles (Frey & Alman, 2003).

**Current Study**

When designing a training, it is important to consider how the content, instruction, and delivery will impact learning. Since there are limited peer-reviewed studies to determine the appropriate development of a distance peer mentor training program, the program in this study utilized a narrative review of distance peer mentor training content (Davis, chapter 2), adult learning principles (Knowles et al., 2005),
strategy instruction (Ellis, Deshler, Lenz, Schumaker, & Clark, 1991), and recommendations for online programs (e.g., Cercone, 2008) to create an online military spouse autism relocation readiness (MilSOARR) mentor training program. The purpose of this study was to examine the effectiveness of the MilSOARR mentor training program on military spouse knowledge of training content. Specifically, the primary research question was: What is the effectiveness of an online peer mentor training program on military spouse knowledge of program protocols and communication strategies as measured by a post-test?

Method

Design

A quasi-experimental design, specifically a non-equivalent group pretest-posttest, was used to determine the effect of an online mentor training program on comprehension of program materials. Pretest-posttest quasi-experimental designs are frequently used to evaluate training programs (Bernard, 2013) and are very common designs in the social sciences (Trochim, 2006). Quasi-experimental designs are different from true experimental designs in that they lack randomization to groups, increasing the threats to internal validity (Trochim, 2006). However, determining an appropriate research design requires balancing experimental rigor with the purpose of the research and logistical constraints. Since limited research exists for military families regarding peer mentor training, a quasi-experimental design was appropriate to investigate possible outcomes while conserving resources often required for experimental studies.

Inclusion Criteria
Inclusion criteria were established to enroll individuals who were hypothesized to have characteristics and experiences necessary to answer the research question (Creswell, 1998). To participate in the study, an individual needed to meet the following inclusion criteria: (1) be the spouse or partner of an active duty or recently (within the past year) retired service member of the Army, Air Force, Coast Guard, Marine Corps, or Navy; (2) be a parent/caregiver of a child with ASD whose child is between the ages of 4-21; (3) be a parent/caregiver who has lived with the family since the child with ASD was at least 1 year of age; (4) have experienced at least 2 military PCSs since the diagnosis of the child with ASD; (5) be at least 18 years old; (6) be fluent in English; (7) have reliable and consistent access to the Internet; and (8) consent to participate in the study.

Recruitment

Participants were recruited through three different methods. First, individuals who participated in previous research projects involving military families with children with ASD were contacted via electronic mail (e-mail). Second, personal contacts and organizations working with military families (e.g., Autism Speaks) were contacted via e-mail. To initiate the recruitment process, e-mail messages were sent to the aforementioned previous research participants, personal contacts, and organizations that contained information about the study and instructions regarding how to contact the researcher if interested in participating in the project. The e-mail message also contained information about sharing information with other individuals or groups. Third, study announcements were posted on social media groups and other relevant websites. Study announcements provided a brief description of the study and instructions to contact the researcher if interested in participating.
Training

The Military Spouse Online Autism Relocation Readiness (MilSOARR) training program was created using findings from the narrative review of peer mentor training content located in Chapter 2. Common categories of information from distance peer mentoring training programs (e.g., peer support, support skills) were presented in modules using different adult learning strategies to present the information. Specific examples are provided in Appendix C. Content for the training was supplemented by reviews of peer mentor studies (e.g., Dennis, 2003), peer mentor training manuals (e.g., Kruck, Lee, Ree, Jones, & Hammond, 2010), and military and ASD studies (e.g., Davis & Finke, 2015a). Adult learning principles were used to structure the content within the training to reflect best practices related to how adults learn (Merriam & Bierema, 2014; Huang, 2002; Cercone, 2008). For example, each section contained ‘knowledge check’ questions to help the peer mentor think more deeply about the material and review what they learned (Cercone, 2008). These ‘knowledge checks’ provided feedback for incorrect answers to help the peer mentors correct any misunderstandings (Cercone, 2008). Some sections provided an opportunity for the peer mentor to describe their life experiences as a warm-up to the actual mentoring process (Merriam & Bierema, 2014).

The training wording was checked for reading ease and grade level. Specifically, the training was typed into Microsoft Word to determine the Flesch Reading Ease and Flesch-Kincaid Grade Level, which were calculated to be 67.7 and between 6th and 7th grade, respectively. Scores of 60-70 on the Flesch Reading Ease scale are considered a “standard” readability level (Flesch, 1948). Since all participants had at least a high school level of education, it is likely a 6-7th grade reading level was appropriate.
Additionally, guidelines from the National Institutes of Health (NIH, 2016) recommend not exceeding an 8th grade reading level for health materials.

A specific communication strategy, the CAS (Care Aware Share) framework, was developed based on results from Chapter 2 and other peer mentoring training manuals (e.g., Kruck et al., 2010) to reflect the three types of support provided by peer mentors, namely emotional, affirmational, and informational (Dennis, 2003). Participants were taught to provide emotional support (Care) through demonstration of active listening (i.e., paraphrasing and asking open-ended questions). Mentors were instructed to provide affirmational support (Aware) by helping their peer become aware they were not alone in their situation and encouraging them in recognizing they had the abilities to succeed. Finally, mentors learned to provide informational support (Share) through sharing their personal experiences and resources with their peer to help them problem solve difficult situations.

Strategy instruction techniques were used to teach each communication skill within the CAS framework (Ellis et al., 1991). A definition, purpose, and example of each content area was provided (Ellis et al., 1991). Then a model-guided practice-independent practice organization was used to teach each skill (Ellis et al., 1991). This structure allowed the peer mentors to immediately apply the skill learned in the content lessons and immediately improve comprehension and use of the support skills (Merriam & Bierema, 2014; Huang, 2002; Ellis et al., 1991). The model provided for each skill was generally an example of a potential peer comment and an example of a peer mentor response that incorporated the specific skill taught in the module. After engaging with the model, participants were presented with a guided practice question where they were
expected to choose the correct response to a provided peer comment. If the participant chose an incorrect response, feedback including a rationale for why the response was incorrect was displayed. The participant then had an opportunity to select another option. The independent practice question provided another scenario and asked the participant to respond to the peer comment using the communication skill. Once an answer to the independent practice scenario was submitted, a sample response was displayed. An example of this is provided in Appendix D. The model-guided practice-independent practice organization was presented in the form of case studies. These case studies were adapted from quotes or situations of other military families with children with ASD from previous research (Davis & Finke, 2015).

The MilSOARR training was created using the program Articulate Storyline 2 (2014). Articulate Storyline 2 allowed for extensive control of the aesthetics, navigation, and content presentation (e.g., interchangeable avatars, quizzes, and navigation functions). The training was disseminated through the Articulate Online website. To access the training, the participants were required to log-in to Articulate Online with a username and password. The Articulate Online website tracked when participants logged on, how long they were logged on, what content they viewed, and how they responded to questions and activities in the training. Peer mentors were able to complete the training at their own pace, and could save their progress and return as needed; however, time restrictions were enabled for each page to discourage ‘skimming.’ Time restrictions varied based on the length of the content on a page, but ranged between 2-12 seconds.

Measures
Two assessment forms (Form A and Form B) were created to determine the level of understanding participants gained regarding program procedures and communication strategies after completion of the online training. Assessments are located in Appendix E and F. The assessments were created using information presented in the training such as the purpose of the mentor program, peer mentor roles and responsibilities, and confidentiality issues. The number of questions dedicated to each section of the training was based on the length and amount of information in that section. For example, the communication skill section was the longest module of the training and, subsequently, 8 or 9 questions (10 or 11 points) in the assessments were based on that content. A random number generator was used to determine the order of the questions and order of the response options on each form.

There were 20 points available on the assessments and 18 questions. Out of 18 questions, there were 16 multiple choice with 4 options (3 distractors, 1 correct), 1 short answer, and 1 short essay. The multiple choice and short answer questions were scored as either correct (1 point) or incorrect (0 point). These questions were meant to examine the participant’s gain in knowledge of program protocols after the training. The short essay question was a case study requiring the respondent to demonstrate his/her understanding of the CAS framework discussed in the training and skill in CAS framework implementation. The participant was asked to provide a response to an example e-mail from a peer. Each answer was scored according to the number of CAS framework items included. Therefore, the possible number of points scored for the short essay question was 0, 1, 2, or 3. I created operational definitions for each part of the three-part CAS framework to score the short essays (see Appendix G). A second coder trained in the
operational definitions, but blind to the testing condition re-scored 24% of the short essays. Point-by-point reliability was calculated to be 94%, which is considered reliable (Law & McDermid, 2008).

Alternate forms reliability was used to establish the equality of the two forms of the assessment (Trochim, 2006). Individuals with characteristics similar to the target population completed both forms of the assessment without completing the training. The correlation between Form A and Form B scores was calculated to estimate the reliability of the assessments. Cronbach’s Alpha is the most commonly used measure of alternative forms reliability (Trochim, 2006) and was calculated to be .88.

Additional items were added to the end of the pre- and post-tests forms. A demographic form collecting data about the participant (e.g., their PCS experience, their spouse’s military service) was added at the end of both forms of the pre-test. Questions regarding the peer mentors’ satisfaction with the online peer mentor training were adapted from Light et al., (2007) and added to the end of the post-test. The demographic form and training satisfaction questions are located in Appendix H and Appendix I, respectively.

Pilot

The training and assessments were piloted with a small number of individuals with characteristics similar to the target population (i.e., military spouse with or without a child with ASD) to check for accuracy, programming errors, etc. Changes to the training and assessments were made based on feedback from the participants in the pilot.

Procedures
After obtaining approval from the Office of Research Protections at Penn State, recruitment messages were e-mailed and posted on social media and other related websites. Individuals were asked to contact the researcher if they were interested in participating in the training. After initial contact, the researcher confirmed the inclusion criteria, sent additional information about the study, and a copy of the consent form. Inclusion criteria was confirmed through participant report in direct contact with the researcher and demographic information forms. Since no compensation was offered, this study was unlikely to attract civilian and/or non-ASD parents as they would be less invested in the outcomes of this study. Participants were allowed to choose either the training group (received online training) or the comparison group (did not receive online training) based on their schedule and preference. The two participants who opted for the comparison group cited a currently busy schedule (e.g., preparing for their own PCS) and stated they could not commit to the time required to complete the training. Recruitment for participants in the training group continued until 20 participants had completed the pre-test, online training, and post-test. After such time, any new inquiries were assigned to the comparison group. Recruitment lasted approximately 3.5 months.

Participants who chose the training group were sent a pre-test after they confirmed inclusion criteria and provided written consent to participate. The two forms of the assessment, Form A and Form B, were counterbalanced among participants to help reduce the testing threat to internal validity. Participants were randomly assigned to receive either Form A or Form B for the pre-test and received the other form for the post-test. After e-mailing the researcher the completed pre-test, participants were sent a username and password for accessing the online training on Articulate Online. The
training was designed to take approximately 1-2 hours to complete. After participants completed the training and exercises, the researcher e-mailed the post-test. To successfully complete the training program, a score of at least 80% on the post-test was required. If participants did not score at least 80%, they were sent additional practice information and questions to complete prior to being assigned a peer. Participants must have scored 100% on the practice questions to be eligible for a peer.

Participants who chose or were assigned the comparison group were sent a pre-test after they confirmed the inclusion criteria and provided written consent to participate. After receiving the completed pre-test, the researcher waited approximately 7 days before sending the post-test. The waiting period of 7 days allowed for some time between testing administrations to reduce testing fatigue while still helping protect from history threats to validity. Once participants sent the completed post-test back to the researcher, they were finished with the study. Participants in the comparison group did not participate in the online training.

Data Analysis

All numerical data were analyzed using SPSS version 24 (IBM, 2016). Data from the demographic questionnaire was reported using means, ranges, standard deviations, and frequencies, when appropriate. Gain scores were determined by calculating the difference between the post-test score and the pre-test score. When participants are not randomized to a condition, gain scores are less biased (Oakes & Feldman, 2001). Calculated gain scores were used as the dependent variable in a Welch t’ test to determine the change in group means. A Welch t’ test was used to protect against bias
from unequal sample sizes (Zimmerman & Zumbo, 1993). All assumptions were checked prior to computation of the Welch t’ test and are provided in Appendix J.

Only participants who were in the training group completed the online training satisfaction questions. Quantitative data from the satisfaction questions were described using means, ranges, standard deviations, and frequencies, when appropriate. Qualitative data was analyzed using a modified summative content analysis approach (Flick, 2014; Hsieh & Shannon, 2005).

In summative content analysis, the goal is to describe the data using patterns of words or ideas (Flick, 2014; Hsieh & Shannon, 2005). In this case, the goal was to describe and enumerate the participants’ views of the training by examining patterns of words or ideas related to two specific questions. First, the training satisfaction measure was selected as the coding frame with each open-ended question serving as a main category (i.e., training likes and training recommendations). Subcategories were derived from each main category through examination of key words or ideas in the data (i.e., the responses to each question) and operationally defined. Second, any data meeting the definition for multiple subcategories were separated into smaller units to allow for placement into a single subcategory. Third, I used the trial coding scheme to check the operational definitions and completeness of the subcategories. Fourth, I used the operational definitions to code all of the remaining data. Finally, a second coder trained in the operational definitions of the subcategories coded 21% of the data from each main category. Inter-rater reliability was calculated to be 100% for the mentor likes subcategory and 91% for the mentor recommendations category, which is considered reliable and not likely to occur by chance (Law & MacDermid, 2008). Discrepancies in
the coding were discussed and resolved. Operational definitions of the subcategories for mentor likes and recommendations are provided in Appendix K.

Results

Demographic Information

This study enrolled 29 participants, 22 in the training group and 7 in the comparison group. Participants were an average of 41 years old (M=41.69, SD=5.10), female (N=29), not Hispanic/Latino (N=23) and Caucasian (N=23) who had attended at least some college (N=26) and were stay at home caregivers (N=17). Most families (26) reported earning $50,000-$149,999 per year. The mentor spouses’ PCS experience varied from 2 to 8 (M=3, SD=1.32) since their oldest child with ASD was diagnosed. Service members were reported to have served an average of 18.52 (SD=4.87) years in the military as an enlisted (N=13) or officer (N=16) rank. Four of five Services were represented in this study; however, the distribution between the training and comparison group was not equivalent. The training group contained spouses from the Air Force, Army, Marine Corps, and Navy; whereas, the comparison group consisted of only spouses from the Air Force and Army. A detailed summary of demographic information is provided in Table 4.

Table 4

Demographic Information for Participants of Training Program

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total N=29</th>
<th>Intervention N = 22</th>
<th>Comparison N = 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>41.69 (5.10)</td>
<td>41.23 (5.47)</td>
<td>43.14 (3.72)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Count</td>
<td>Hispanic/Latino</td>
<td>Not Hispanic/Latino</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------</td>
<td>----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Not Hispanic/Latino</td>
<td>23</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>African American/Black</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>American Indian/Alaska</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Native Asian</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>23</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>Native Hawaiian/Other</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Associate’s (2yr college)</td>
<td>7</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Bachelor’s (4yr college)</td>
<td>9</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Master’s (graduate school)</td>
<td>7</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Doctorate (postgraduate school)</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Employment</td>
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<td></td>
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</tr>
<tr>
<td>Full time</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Part time</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Stay at home caregiver</td>
<td>17</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50,000-74,999</td>
<td>9</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>75,000-99,999</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>100,000-149,999</td>
<td>13</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>150,000+</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>PCS since diagnosis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre/Post Test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre/Post Test</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Service                   |       |                |                    |         |
| Air Force                 | 8     | 3              | 5                  |         |
| Army                      | 15    | 13             | 2                  |         |
| Marine                    | 2     | 2              | 0                  |         |
| Navy                      | 4     | 4              | 0                  |         |
| Years of Service          |       |                |                    |         |
| Pre/Post Test             |       |                |                    |         |
| Rank                      |       |                |                    |         |
| Enlisted                  | 13    | 11             | 2                  |         |
| Officer                   | 16    | 11             | 5                  |         |
Results from the Welch t’ test (see Table 5) indicated, on average, participants in the training group had higher gains on the post-test ($M = 7.18$, $SE = 2.95$) than participants in the comparison group ($M = 0.43$, $SE = 2.637$). This difference was statistically significant $t(11.24) = 5.73$, $p = 0.000$. Of the 22 participants in the training group, 17 scored at least 80% and passed the training successfully on the first attempt. Three of the five who did not pass the post-test for the training chose to complete the remediation activity and extra questions. All three passed the extra remediation questions.

Table 5

<table>
<thead>
<tr>
<th>Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>32.813</td>
<td>1</td>
<td>11.24</td>
</tr>
</tbody>
</table>

Item Analysis

Descriptive statistics were used to analyze the training group’s responses on the post-test forms. Questions relating to the same areas of content from the training on each form were collapsed into the same category to provide a comprehensive view of participant performance per section. A summary of this information is located in Table 6. Participants in the training group scored well on most sections including confidentiality, troubleshooting, peer support, support skills, and introduction information. The section the participants performed the worst on was the information section because of a question on both test forms with a high level of item difficulty.

Table 6

Summary of Training Group Performance on Post-Test by Content Category

<table>
<thead>
<tr>
<th>Section</th>
<th>Number of Points</th>
<th>Percent Correct</th>
</tr>
</thead>
</table>
Questions with an item difficulty of at least .5, meaning 50% or fewer participants chose the correct response, were examined to determine patterns of errors that may be present. Two questions, one on either form in the information specific to military and ASD section, scored an item difficulty of .23 and .44. The two questions and percentage of participants who chose each response are located in Table 7. Both questions asked participants to categorize negative impacts of PCSing from previous research into impacts related to the interventions/services, the family, or the child with ASD. Responses for these two questions were inconsistent across the four choices. Some participants even marked more than one of the options, indicating they may have misunderstood the question or chose all the responses they had previously experienced.

Table 7

<table>
<thead>
<tr>
<th>Question</th>
<th>Item Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous research has found military families with children with autism report several negative effects after a PCS. Which of the following is a negative effect of PCSing related to the family?</td>
<td>.23</td>
</tr>
</tbody>
</table>
Previous research has found military families with children with autism report several negative effects after a PCS. Which of the following is a negative effect of PCSing related to the child with autism?

Essay Question Analysis

The pre- and post-test short essay question answered by the training group was reviewed for content related to the CAS framework (see Table 8). Only 5 mentors (23%) received all 3 points for the essay question on the pre-test; whereas, 20 (95%) did so on the post-test after the training. Participants seemed to be able to apply the CAS framework in a real scenario.

Table 8

<table>
<thead>
<tr>
<th>CAS Framework Essay Question Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
</tr>
<tr>
<td>CAS (all three areas)</td>
</tr>
<tr>
<td>Care</td>
</tr>
<tr>
<td>Aware</td>
</tr>
<tr>
<td>Share</td>
</tr>
</tbody>
</table>

Nearly all (20/22) training group participants included part of the “share” aspect of the CAS framework in their pre-test responses; however, these responses were usually in the form of a list of instructions. For example, one participant responded, “My first suggestion would be to reach out to the local EFMP office at the new duty station. Then I would reach out to the local school services officer or directly to the school district…”

Even though most participants included a “share” response, these responses were qualitatively different from those after the training. After the training, responses included personal experiences and explanations for suggestions. In the post-test, the same participant wrote,
“One thing I have done in the past as a starting point is reach out directly to the local EFMP office in the location I am moving. You can start with the EFMP through the Army Community Service office. They in turn will be able to hook you up with the medical EFMP contact. This will get you a start in what you need to do through the military itself to start services…”

The most common area excluded of the CAS framework on the pre-test was “care.” Only 8 participants included comments related to asking questions or paraphrasing in their pre-test response. It is interesting to note this was the only section every participant included in post-test response.

Satisfaction

The training group also responded to questions regarding their opinions of the training after completion. Questions related to mentor preparation and satisfaction were analyzed using descriptive statistics and provided in Tables 9 and 10. Overall, participants seemed to feel the training was helpful and they recommended it for future mentors. Nineteen out of 22 participants indicated they felt the training helped prepare them to be a better mentor. Almost all (21) of the participants indicated they would recommend other military spouses who were interested in being mentors complete the training. Participants rated each section of content provided in the training on a scale of 1 (very dissatisfied) to 5 (very satisfied). The average score for each section was at least 4, which indicated participants were generally satisfied with the aspects of the training. Further, no participant indicated being very dissatisfied with any training component.

Table 9

Training Group Response to Preparation and Recommendation Questions
Table 10

Training Group Satisfaction with Training

<table>
<thead>
<tr>
<th>Section</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>4.05 (.90)</td>
<td>2-5</td>
</tr>
<tr>
<td>Peer Support</td>
<td>4.18 (.80)</td>
<td>3-5</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>4.09 (.92)</td>
<td>2-5</td>
</tr>
<tr>
<td>Support Skills</td>
<td>4.09 (.76)</td>
<td>3-5</td>
</tr>
<tr>
<td>Information about PCSing with a child with ASD</td>
<td>4.05 (.90)</td>
<td>2-5</td>
</tr>
<tr>
<td>Confidentiality</td>
<td>4.32 (.78)</td>
<td>3-5</td>
</tr>
<tr>
<td>Overall</td>
<td>4.32 (.84)</td>
<td>2-5</td>
</tr>
</tbody>
</table>

Open-ended questions about what participants liked best about the training and what they would change were analyzed using a content analysis approach. Results of these analyses are provided in Table 11. Twenty-one participants offered 58 comments related to parts of the training program they liked best. These were divided into six themes: the CAS framework, the examples in the training, the opportunity to help families, the design of the training, the convenience of taking the training, and “other” comments.

The highest number of participants (12) commented on the CAS framework. Military spouses liked how the framework was set up as a way of communicating with their peer that was simple and clear. One mentor stated, “CAS method was very helpful with the training. I learned a lot.” Another said, “[The training] taught me a better way to communicate by using the CAS framework.” One participant mentioned a specific part of
the CAS framework she felt was important. She commented, “The “Care” portion of the framework. We tend to always jump to the starting part when trying to make connections but it is important to acknowledge the peer's feelings as well.”

Table 11

Training Group Likes about the Training

<table>
<thead>
<tr>
<th>Categories</th>
<th>Participants (%)</th>
<th>Comments (%)</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS Framework</td>
<td>12 (57%)</td>
<td>12 (21%)</td>
<td>“Learning the CAS system of support. I think it will be extremely helpful when dealing with such emotional issues.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“Taught me a better way to communicate by using the cas framework.”</td>
</tr>
<tr>
<td>Examples</td>
<td>11 (52%)</td>
<td>14 (24%)</td>
<td>“Examples were relevant and specific to the topic.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“Multiple choice mixed with the written answers helped with understand the material better.”</td>
</tr>
<tr>
<td>Helping Families/Giving Back</td>
<td>8 (38%)</td>
<td>9 (16%)</td>
<td>“I like the idea of helping other parents and I think this training is a great way to bridge the gap of support for so many of our new military families.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“It helped me become more aware and it will help me become better at guiding someone.”</td>
</tr>
<tr>
<td>Program Design</td>
<td>6 (29%)</td>
<td>8 (14%)</td>
<td>“Easy to use.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“I liked the avatars – made the module more personal.”</td>
</tr>
<tr>
<td>Convenient</td>
<td>5 (24%)</td>
<td>8 (14%)</td>
<td>“It could be done from home.”</td>
</tr>
</tbody>
</table>
Eleven participants and the highest percentage of comments (24%) were related to examples in the training. Participants thought the examples were relevant and easy to understand while providing sample dialogue of implementing the CAS framework. A participant commented that she liked the “case study for peer and peer partner in how to respond using the CAS framework.” Others mentioned the knowledge check questions at the end of each section as helpful for their retention of the information presented. One military spouse stated, “Multiple choice mixed with the written answers helped with understanding the material better.” Others liked the “questions after each portion of the training” and “open-ended question techniques per module.” Two participants described the confidentiality examples and explanations as particularly helpful. One of these participants stated, “I felt like the confidentiality explanations were pretty cut and dry and I am glad it was included in the training.”

Eight mentors commented on liking that there was a program to help military families PCS and that they had the opportunity to be part of that help. One mentor said one of the things she liked best about the program was, “knowing that after the horrible time we had with our son, it’s not going to happen to others in the same way.” Military spouses felt the training program and subsequent mentorship program would benefit other military families. Specifically, one spouse said, “I like the idea of helping other
parents and I think this training is a great way to bridge the gap of support for so many of
our new military families.” Another participant commented, “anything to help PCSing
families is good.” Overall, participants liked that something was being done to try to
support military families who may need PCS support.

The other three categories were not mentioned as frequently. Six participants
commented on elements of the program design they liked. These comments usually
focused on the training program being easy to navigate and use with clear,
straightforward sections of information. One participant said they explicitly “liked the
avatars” because they “made the modules more personal.” Five mentors liked the training
was computer-based and online which made it “easy to go at your own pace” and allowed
participants to “take [it] when [they] were available.” Finally, seven participants listed
other aspects of the training they found to be helpful including being given a deadline,
learning some additional information about resources they could use, and having an
instructor help problem solve technological issues.

The participants in the training were also asked to provide suggestions for
improvements to the program (see Table 12). Nineteen mentors responded with 40
comments on areas they would change for future versions of this training. Comments
were coded into three separate categories: content, design, and technology.

Table 12

<table>
<thead>
<tr>
<th>Categories</th>
<th>Participants (%)</th>
<th>Comments (%)</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N=19)</td>
<td>(N=40)</td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>11 (58%)</td>
<td>17 (43%)</td>
<td>“With the CAS framework slides and examples of conversation, it can read a</td>
</tr>
</tbody>
</table>
The most frequent category for suggestions was content with over half of the participants (58%) focusing nearly half of their comments (43%) on this topic. Some participants recommended reducing the wording or content, while others preferred increasing the number of examples and topics covered. For example, one participant stated, “It’s pretty lengthy and a lot of information to memorize. I would shorten it and make it more user friendly.” However, another participant wanted more content. She commented:

“It would be helpful if the program included some training on military regulations (such as EFMP) and federal law (such as IEPs). In my experience, even the ‘experts’ who work in EFMP are not familiar with various rules and sometimes give incorrect information to families.”

Other topics military spouses mentioned included adding more resources for mentors and mentees and a section on things not to tell your peer. Additionally, some mentors wished for a better, clearer explanation of the CAS framework, specifically the ‘aware’ and ‘share’ parts. A spouse said, “I’d like to see more explanations of how aware is different than share. I’m confused on how ‘aware of other’s experiences’ is different from ‘sharing experiences.’”
Over half of the participants (53%) commented on changing some aspect of the design of the training. Participants suggested making the training “more friendly” by breaking the sections into smaller segments. One military spouse said, “Break the short answer up into a different section. I have 15 minutes between kid “issues.” I found myself having to leave, think about the way I wanted to answer the question, deal with kid “drama” and finally return.” Other spouses wished the timing of the slides was faster and that they were allowed complete comparison over their pace in progressing through the training. A mentor stated, “The time lag on some of the slides was too much. I read faster than the allotted time.” Some suggested changing the format of the training to be more interactive by adding sound, videos, or voice recordings. Regarding the format, one spouse also said, “Make it a little more friendly to be able to reference, like an online book of sorts.”

Finally, the last category of aspects of the training program the participants commented on relative to change was technology. A few participants (3) had some difficulty with the technology of the program. For example, two participants stated their answer was marked incorrect, even though it was actually correct. One mentor explicitly said, “others taking the training may be confused by this or other similar wrong answers” so steps should be taken to make sure the program is effective. Another spouse cited problems with the program either “getting stuck” or not allowing the participant to go back to previous content in the training.

Discussion

Previous literature has suggested the importance of training mentors, including peer mentors, prior to establishing mentorship relationships (e.g., Dennis, 2003).
Although several studies have included training as a precursor to the peer mentorship programs, few confirm the effectiveness of the training to teach desired skills to prospective mentors (e.g., Dennis et al. 2002; Solomon & Flynn, 2005). In a recent narrative review of peer mentor training for distance peer mentoring programs, Davis (Chapter 2) concluded only two studies written in the same manuscript empirically validated the training. In addition, many trainings for distance peer mentorship programs were provided in-person, compromising the researcher’s ability to assess potential mentors in the communication medium they would use to mentor others (Davis, chapter 2). Two notable exceptions are Rudy et al., (2001) who provided training via telephone and Light et al., (2007) who provided training via the Internet. The goal of this investigation was to determine the effect of the MilSOARR training program on understanding procedures and communication strategies by military spouses with children with ASD. Understanding of program procedures and communication strategies was measured by two comparable forms of a researcher developed assessment which were counterbalanced among participants. Although the sample size was small (N=29), results from a Welch’s t’ test determined the training group scored significantly higher on the post-test than the comparison group (t(11.24) = 5.73, p = 0.000). Participants in the training group gained an average of 7.18 points on the post-test after completing the training; whereas, the comparison group gained an average of 0.43 points on the post-test. Further, 17/22 participants scored at least 80% on the post-test to successfully complete the training and 20/22 participants scored 100% on the case study question, demonstrating use of the CAS communication framework in a realistic scenario. These findings, although preliminary, indicated the online training program was effective at
teaching military spouses with children with autism peer mentoring program procedures and communication strategies.

Similar to the findings from Light et al., (2007), the training was not successful in teaching all participants the required program procedures and communication strategies. In this study, 5/22 scored below the required 80% to pass the post-test. Lower scores may be partially explained by significant time passing between participants finishing the training and completing the post-test, indicating possible degradation of the knowledge gained from the training over time. Booster sessions may be required to remind mentors of program procedures and communication strategies at intervals throughout the mentorship program or prior to mentee assignment, if time has passed between training and the program start. Participants in this study were given a manual with all of the information in the training after completing the post-test and before beginning a mentor relationship. While this may provide an opportunity for mentors to reflect back on their training, it may not be enough. Mentors in previous studies have indicated their desire for additional training or check-in points, even if they were given manuals after the training (Dennis, 2002; Dennis 2012; Pistrang et al., 2013).

Of the five who did not pass the training after the first post-test, three decided to complete additional activities and questions to demonstrate their understanding of the material. These three military spouses had indicated a strong desire to be mentors for other families and were willing to spend additional time preparing for their role. This motivation to help other military families was evidenced in the training group’s responses to what they liked about the training as well. Several mentors commented on how they appreciated the chance to get to help other military spouses have a better experience and
learn from them. Over half of the mentors from previous studies mentioned the opportunities to help others, especially those who were like them, was one of the reasons for volunteering to be a peer mentor (Dennis, 2012). Given this motivation, alterations to the training to provide more practice or more content may result in higher passing rates without significantly increasing dropout. However, researchers need to temper training with preserving “peer” status (Dennis, 2003).

Mentors provided feedback regarding other aspects of the training they liked as well. Many mentors liked the CAS framework as a way to help them communicate with their mentees, especially the ‘care’ part of the framework. Participants liked the examples and varying question types in the training including case studies, multiple choice questions, and open-ended questions. The adult learning literature suggests using multiple formats to provide information is beneficial (Cercone, 2008). Participants in the current study also mentioned they liked the convenience of doing the training from home and at their own pace. Adult learners have additional responsibilities and commitments that may get interfere with learning (Huang, 2002; Cercone, 2008). This may be particularly true for parents of children with ASD given the intervention load and increased everyday care requirements (Myers et al., 2009). Finally, participants felt the online program was easy to navigate, straightforward, and had some personalization such as the avatars to break up the text. Recommendations for online training programs emphasize the need for classes to be easy to navigate and reduce the cognitive load as adult learners may be newer to technology (Cercone, 2008).

Participants performed well on the assessments overall, scoring an average of 81% across the six sections of content. Average scores on the assessments indicated
spouses scored highest on confidentiality, troubleshooting, and peer support questions. Participants seemed to understand their role as peer mentors, the responsibilities they had, how to troubleshoot common pitfalls, and when to keep and break confidentiality. Additionally, participants scored well on the case study, averaging 95% with 20 participants scoring 100%. Scores were lowest for the information section with an average score of 54% of the questions correct. However, item analysis of the assessments indicated mentors scored poorly on one similar item on both forms of the assessment. This item asked participants to indicate which choice was an example of a negative effect of PCS from previous research regarding the family in Form A or the child with ASD in Form B. Responses for this question on both forms were inconsistent and in some cases, participants marked more than one answer. Participants did not seem to conceptualize negative effects of PCSing in the same way as outlined in the training; that is, they did not view negative effects as occurring in distinct categories. Military spouses may view PCSing and the following effects as events occurring to the family unit as a whole, rather than occurring to specific individuals. Family systems theory supports this concept by describing families as interconnected subsystems (Cox & Paley, 1997; Minuchin, 1985). When the family PCSs, spouses may view delays in starting therapy, decreased organized support, and difficulty making friends as events occurring to the family as a whole rather than to the interventions, the family, and the child with ASD, respectively.

The area of the CAS framework most commonly missed in the pre-test related to ‘care’ responses, specifically, the active listening strategies of paraphrasing and asking questions. Emotional support was the most sought after support for mothers with children with ASD using online support groups (Niela-Vilen et al., 2014) and seemed to resonate
with mentors in this study as all mentors included it in the case study after the training. In fact, one mentor specifically mentioned the importance of the ‘care’ part of the CAS framework in their feedback. Therefore, the provision of emotional “care” support is viewed as important; however, providing this support through active listening strategies may be less intuitive for potential mentors using computer-mediated written communication because of the lack of nonverbal cues. Active listening can be expressed face-to-face by nonverbal cues such as facial expressions, head nods, and vocalizations which are less salient online (Danby, Butler, & Emmison, 2009). Other strategies such as paraphrasing and asking open-ended questions still demonstrate emotional support (Jones, 2011) without the requirement of in-person or synchronous communication. Including training on providing emotional support through active listening strategies appropriate for technology-mediated communication may be critical for online peer mentor programs.

Participants were satisfied with the training overall, felt the training prepared them to be a mentor, and would recommend others seeking to be mentors complete the training as well. Although participants had recommendations for changing the content, most rated it satisfactory with an average score of at least 4 out of 5 on each section. Eighty-seven percent of participants felt the training prepared them to be a better mentor. Previous literature corroborates these findings as other mentors in training programs have found the programs helpful (Dennis, 2002; Dennis, 2012; Light et al., 2007). When asked about how well their training prepared them for their role as a mentor, an average of 93% of mentors across three studies (Dennis, 2002; Dennis, 2012; Light et al., 2007) felt the training prepared them for their mentorship role, which is comparable to results from this
study. Twenty-one out of 22 mentors in this investigation would recommend other military spouses interested in mentoring take the training. Similar results have been reported in other mentor training studies as well (Light et al., 2007).

Although the majority of spouses felt the training program was helpful, they listed several recommendations for changes. First, many spouses commented on possible changes to the content including reducing content, adding new information such as federal laws, and providing more practice with the CAS framework. Some participants felt there was too much content to remember. There may be parts of the training that can be reduced or eliminated to streamline the content and/or make room for other content deemed important by participants such as federal education laws. For example, given most mentors provided information from the ‘share’ category of the CAS framework before the training, it is possible this section could be reduced. Another option may be to allow participants to ‘test out’ of specific sections by demonstrating their competence on questions or case studies on section pre-tests (Cercone, 2008). While adding some information regarding laws could be helpful for some military spouses, caution should be taken. One of the challenges of PCSing for military spouses with children with ASD is the changing laws, policies, and eligibility that vary by state and school district (Freuler & Baranek, 2016). Providing too much of this information may be irrelevant for some mentors and overwhelming for others. An alternative to adding extraneous information to the training may be to include it in the training manual or optional sections of content for greater training personalization (Cercone, 2008).

Second, participants recommended changes to the program design related to creating a more user-friendly program. For example, some participants suggested adding
videos or sound to the training. Cercone (2008) recommended online programs consider aspects of design that impact the user experience such as adding a help function, search/find functions, as well as features that improve aesthetics. Adding multi-media may also help the content feel less burdensome, allowing for the same content to be delivered in a more interesting and less taxing format. Military spouses also suggested breaking the training up into shorter segments and allowing for more control over the pace of the training by eliminating the timer feature on the ‘next button.’ One of the benefits of online programming is learning is independent of place and time; users are able to progress at their own pace (Huang, 2002). Altering the timing and creating more breaks in the sections may allow adult learners with extra commitments, such as multiple intervention appointments for their child with ASD, more flexibility to participate in the training at their own pace. Creating a training to meet the needs of the population is important or it will be underutilized (Zielinski, 2000).

Finally, four participants mentioned difficulty with the technology leading to breakdowns and incorrect information. Online learning recommendations suggest creating an environment where these do not occur frequency as they may deter individuals from completing the training (Zielinski, 2000). Although technology breakdowns happen, there may be some steps that can be taken to reduce the frustration when this occurs. For example, a ‘help’ guide can be created either within the program or emailed to participants to provide them with options when something goes wrong (Cercone, 2008). Testing the program with numerous web browsers and cookie restrictions may help delimit the technological specifications needed to complete the training, reducing program errors. A technology assistant may be trained to troubleshoot
possible breakdowns with the technology and inform participants of possible solutions.

Three participants mentioned they liked having the researcher available to help troubleshoot technology problems; however, this option is more costly and likely more prohibitive than the others.

Limitations

There are some limitations that affect the generalizability of this study and temper the conclusions. First, participants in this investigation were from a nonrandom sample, resulting in a selection bias that may cause participants to not be representative of all military spouses with children with ASD. Military spouses self-selected to participate based on recruitment e-mails and flyers and may have inherently different characteristics than those who did not wish to participate. For example, military spouses who chose to participate in the training for the mentorship program may be more social by nature and have better communication skills than those who did not choose to participate.

Second, the research design used in this investigation was a quasi-experimental nonequivalent groups pre-test post-test design. This design reduces the internal validity of the experiment; however, steps were taken to limit some of those threats. For example, participants were not assigned groups based on extreme pre-test scores; therefore, the change from pre-test to post-test was less likely due to regression to the mean. Possibilities for interactions between internal sources of validity were also limited by recruiting participants from across the country to reduce history confounds and counterbalancing two alternative forms of assessments to reduce testing confounds.

Third, the results were generated from a limited sample size, particularly for the comparison group, despite over three months of recruitment. There was a drop off in
participants at each point in the recruitment process (i.e., initial interest, consent, pretest, training, posttest), although the largest drop off was after initial interest before obtaining consent. It is possible the steps were too cumbersome to complete without additional motivation or incentive. Future research should address recruitment drop off by reducing the time or steps involved or increasing motivation or incentives for participants. A small sample limits the generalizability of the findings to other military spouses with children with ASD as they may have different characteristics than those represented in this study. Further, small samples impact the power of the statistical tests to detect an effect, although this is unlikely given the size of the effect.

Fourth, all participants in this study were female military spouses. Previous research has suggested males and females may not only communicate differently when using technology (Smith-Jentsch et al., 2008), but may also seek different types of support (Mo et al., 2009). Therefore, the improvement in communication skills as a result of the training in this study may not carry over to male military spouses.

*Future Directions*

Future research should consider recommendations from the participants in this study regarding changes to the training related to content, program design, and technology issues. One way to adjust the training content to be more applicable for what the military spouses need is to use a participatory design method by including their perspective on the training (Spinuzzi, 2005). In this case, program developers and researchers could interview military spouses on what content they would like in a training and design the training collaboratively.
Future research should also seek to address the generalizability and methodological shortcomings of the quasi-experimental design by conducting a larger scale, randomized experimental study. Although a number of military spouses expressed interest in participating in a mentorship program, only 22 completed the training and assessments. Additionally, future research should investigate ways to implement the training in a better, more efficient manner. Future research should examine the effectiveness of a training program for mentors to provide assistance in other areas of military life such as deployment or adapt the training towards other specialty populations such as male spouses, active duty service members, and Reserve and National Guard families. Although military spouses in the training group performed well and seemed to learn the program protocols and support skills, there is no evidence of how this knowledge may impact their mentorship relationships with peers due to limitations of this research design. Future research should seek to link the training outcomes with mentorship outcomes.

Conclusion

Several researchers have described a training for mentorship programs; however, few studies have examined the effects of mentor training on mentor knowledge of communication strategies taught in the training (Davis, chapter 2). Information is provided about broad topics covered in the training and length of the training, but not how potential mentors were assessed for comprehension (e.g., Dennis et al., 2002; Solomon & Flynn, 2005). This investigation sought to develop and test a distance peer mentor training for military spouses with children with ASD. Results from this research indicated prospective military spouse mentors in the training group scored significantly
higher on training assessments than those in the comparison group. Further, military spouses mentors in the training group felt the training was useful and helped prepare them to mentor other military spouses. Although this project has some methodological weaknesses, this pilot investigation indicated a brief, online peer mentor training may be used to train peer mentors. Future research should be completed to address limitations and extend the sample of this study.
Chapter 4

Peer Experiences of Military Spouses in a Distance Peer Mentoring Program

Military families are characterized by a constellation of experiences including family separations and reunions from deployments and trainings, different cultures, dangerous work environments, and relocations (Segal, 1986; Hall, 2008). While some civilian families may experience these events at specific times, only military families experience this unique combination (Segal, 1986). The number of families in the military has grown since the 1970’s as a result of mandates for a volunteer-only Force. Since then, the demographics of the United States Armed Forces has shifted to include more women service members, more families, and more dual career couples (Hall, 2008). According to a demographics report (DoD, 2014), over half of all active duty service members were serving with spouses, children, or both. As the demographics of the military have changed, the military has put more emphasis on supporting the military family. For example, military installations have opened child development centers that provide childcare for young children and have initiated programs to increase awareness and prevent child abuse (e.g., New Parent Support Program) (DoD, 2010). The White House has also recently issued an initiative making supporting and strengthening military families a national priority (The White House, 2011).

Military life and stressors not only impact the service member, but the entire family. According to family systems theory, a family is a collection of interconnected subsystems which influence each other (Minuchin, 1985; Cox & Paley, 1997). An event
occurring to one family member, such as anxiety related to an upcoming deployment, ripples throughout the family. For example, in a study examining the effectiveness of a family-centered resiliency program, Lester and colleagues (2013) found elevated and associated pre-intervention levels of stress for the service members, civilian spouses, and their children. Similarly, family systems theory suggests family life and stressors impact the military service of service members. Previous research has indicated factors associated with non-military family members influence the readiness and retention of military service members (Croan et al., 1992). Spouses who view military policies as unsupportive of family life had lower commitment to the military which, in turn, reduced the commitment of the service member (Bourg & Segal, 1999). While most military spouses are resilient when faced with military pressures and stresses (Braisure et al., 2012), some military spouses have more stress at specific times. Flake, Davis, and Johnson (2009) reported 42% of military spouses demonstrated “clinically significant” levels of parenting stress during times of deployment. A survey by Blue Star Families (2014) reported 39% of spouses felt stressed either most or all of the time. However, deployment is not the only military event that may increase stress for military spouses.

Permanent changes of station (PCS) are also part of the military lifestyle (Segal, 1986; Hall, 2008). Relocations are frequent, often not voluntary, and may be isolating. Military families move three times more frequently than their civilian counterparts (Drummet et al., 2003). Relocations are initiated by the military and although military families may submit a location preference form, new assignments are based on the needs of the military which may or may not match the family’s preference (Blasiure et al., 2012). Changing duty stations may also be isolating for military families. Military
families may be geographically isolated at an installation in a rural area, socially isolated from friends and extended family members, and/or culturally isolated in another country (Hall, 2008). After relocating, military families must establish new relationships within the community, develop a new routine, cultivate new friendships, and locate new services such as schools and healthcare while facing emotional and physical exhaustion from the act of moving (Drummet et al., 2003).

The majority of military families adjust well to these changes; however, some face significant challenges (Weber & Weber, 2005). Croan et al., (1992) found a number of family composition factors to impact relocation outcomes. Specifically, service members with dependents, especially when those dependents were children over the age of 3, reported more problems during PCSing (Croan et al., 1992). Military families who reported receiving less information before or after the move were also more likely to report problems with PCSing (Croan et al., 1992). Further, families with more problems during relocation reported lower family adaptation (Croan et al., 1992). A study by Simpson & Fowler (1994) found children who have experienced three or more moves are at an increased risk for emotional, behavior, and/or school-related problems. Other family compositions, such as a child with a disability, may lead to additional risk during PCSing as well.

Military families with a child with autism spectrum disorder (ASD) are a unique subset of military families because they experience both military and ASD related challenges (Davis & Finke, 2015a). For example, military families have reported lack of service continuity between locations, lack of support, educational barriers, and family stress (Simpson & Fowler, 1994; Blue Star Families, 2013; 2014); whereas, families with
children with ASD have reported excessive delays for therapy, limited providers, lack of quality education or services, lack of support, and family stress (Brookman Frazee, Baker-Ericzen, Stadnick, & Taylor, 2012; Dymond, Gilson, & Myran, 2007; Kohler, 1999; Little, 2003). For military families with children with ASD, these two sets of issues occur together during relocations. Two studies interviewed military spouses with children with autism about raising their child in a military environment (Davis & Finke, 2015a; Freuler & Baranek, 2016). Military spouses in both studies discussed barriers related to delays or gaps in therapy, limited access to necessary providers, lack of continuity of services and individual educational programs (IEPs) and lack of support and isolation (Davis & Finke, 2015a; Freuler & Baranek, 2016). A survey of military spouses with children with ASD confirmed these findings (Davis et al., 2016a). Additionally, spouses in Davis and Finke (2015a; 2015b) also reported negative impacts on the child with ASD and the family after relocation including increased emotional and behavioral reactions from their child with ASD and an increase in family stress.

Supports may help alleviate stressors for military spouses with children with ASD and their families. According to Bowen and colleagues (2003), a feeling of community through formal or informal supports is associated with positive outcomes for families and improves family adaptation. Paley and colleagues (2012) also suggested more social support and “embeddedness within a military community” may lessen the effects of deployments on families (p. 254). Further, military families with children with ASD commented on the benefits of social support as they parent a child with ASD within a military community, particularly during deployments (Davis & Finke, 2015a; Freuler &
Baranek, 2016). However, military families with children with ASD lack the support they need (Davis & Finke, 2015a).

To address some of the needs of military families with children with ASD, the DOD has implemented some programs such as the Exceptional Family Members Program (EFMP), Extended Care Health Option (ECHO), the school liaison program, and the Interstate Compact on the Educational Opportunity for Military Children. The EFMP program is a mandatory enrollment program for service members and their family members with special needs (OAR, 2010). The EFMP program provides personnel to maintain documentation of members with special needs, help to match installation services with family needs prior to relocation, inform families of agencies and services, and provide other supports to families (OAR, 2010). Each Service operates its own EFMP program and the services provided by EFMP vary both by Service and by installation (OAR, 2010). The ECHO program provides financial support to eligible members for services such as applied behavior analysis (ABA), but families must re-enroll after each move (OAR, 2010). School liaison programs are operated independently by each Service and seek to connect military commanders and military families with schools to solve military-school related issues (DODEA 2014). The Interstate Compact on the Educational Opportunity for Military Children was created to remove barriers to education for military children such as enrollment, placement, and graduation requirements that may occur as a result of the frequent moves and deployments of their parents (MICCC, 2011). While these programs are helpful, they do not address all of the known ASD and PCS related issues (Davis & Finke, 2015a). Further, military families with children with special needs have stated these programs are inconsistent, do not meet
expectations, and do not offer enough support (Jagger & Lederer, 2014; Blue Star Families, 2013; Davis & Finke, 2016b). Additional supports are needed to effectively meet the needs of military families with children with ASD during times of relocation (Davis & Finke, 2015a; 2015b; Davis et al., 2016a).

One support that may be helpful for military families with children with ASD is distance peer mentoring. Distance peer mentoring occurs when an individual with more experience regarding a specific situation provides emotional, affirmational, and informational support to an individual with less experience through the use of technology-mediated communication (Dennis, 2003; Bierema and Merriam, 2002). Distance peer mentoring may be beneficial for military spouses with a child with ASD for several reasons. First, face-to-face mentorships may not be available. Although over 23,500 military dependents are diagnosed with ASD (Tricare, 2011), military families may be dispersed across the United States and three continents (Military Community and Family Policy, 2013). While at these installations, military spouses may be geographically isolated from other support systems such as friends, extended family members, or other military spouses with children with ASD (Davis & Finke, 2015a; 2015b). Second, the proliferation of Internet-capable technologies has increased over the past several years (Anderson, 2015) causing different types of communication to be more accessible. For example, 88% percent of military spouses reported using social media to connect with friends or family who live in another location (Blue Star Families, 2013). Additionally, a study investigating social media use among military spouses found all spouses also reported using electronic mail (e-mail) and Facebook to communicate (Rea, Behnke, Huff, & Allen, 2015). Third, distance peer mentoring programs equalize the
relationship and may lessen the impact of demographic characteristics such as rank, race or ethnicity, and education (Bierema & Merriam, 2002). Hall (2008) noted the rank of the service member also impacts the spouse. Through technology-mediated communication, the spouse could choose to disclose rank or not.

Other special populations have had successful outcomes after participating in distance peer mentoring programs. Niela-Vilen et al., (2014) conducted a systematic review of internet-based support groups for parents and found parents received a number of supports including sharing experiences, not feeling alone, affirmation of good parenting, and sharing feelings. Reinke and Solheim (2014) investigated the use of online parent groups by parents of children with ASD and found participants reported these groups were resources for emotional and information support. Distance peer mentoring has been used to target support for other populations as well such as new mothers (e.g., Dennis et al., 2002), individuals with schizophrenia (e.g., Boardman et al., 2014), individuals who use augmentative and alternative communication (e.g., Cohen & Light, 2000), and new college students (e.g., Hixenbaugh et al., 2006). Traditional peer mentoring programs have been used with different military populations such as service members adjusting to injuries (Wounded Warriors Project, 2016) or civilian life (CompeerCorp, 2015). Distance mentoring programs have also been suggested as mentoring alternatives for military populations (Knouse, Smith, Smith, & Webb, 2000).

Current Study

Given the challenges military families with children with ASD encounter when relocating and the characteristics making typical parent-to-parent support often infeasible, alternative supports may be needed. An online peer mentoring program may be beneficial
for military spouses with a child with ASD and little PCS experience. Military spouses with more experience may have strategies to support family and child adaptation, tips for transferring paperwork from schools and military programs, and advice for finding services. The purpose of this investigation was to describe the effects and experiences of military families with children with ASD participating as peers in an online peer mentorship program. Specifically, the research questions were:

1. What is the effect of an online peer mentorship program on PCS stress, PCS attitude, self-efficacy, and resilience for military spouses with children with ASD?

2. What are the peer experiences of military spouses with children with ASD participating in an online peer mentorship program for PCSing?

**Method**

**Design**

A mixed-methods design was chosen to evaluate experiences of the peers in the Military Spouse Online Autism Relocation Readiness (MilSOARR) mentorship program. One purpose of mixed-methods approaches is to measure and understand intervention outcomes and processes (Palinkas, Horwitz, & Hurlburt, 2011). The quantitative design was a pre-experimental one group pre-test post-test design and was used to determine the change in PCS stress, PCS attitude, self-efficacy, and resilience before and after the mentorship program for participants in the “peer” category (i.e., military spouses with less PCS experience who received mentorship). Pre-experimental designs, while fairly weak, can be used as a pre-cursor to larger studies to determine if an intervention might be successful if launched on a larger scale (Jahan & Henary, 2013).
Qualitative data from surveys were used to both supplement the quantitative data and enhance understanding of the experiences of peers during the mentorship program. A survey methodology was chosen to understand the satisfaction and experience of military spouses with children with ASD who were peers in the mentor program for relocation readiness. Survey methodologies are appropriate when the research question requires description of personal experiences or events (Rea & Parker, 2005). Further, previous studies examining distance peer mentor programs have used survey methodologies to gather information regarding outcomes such as program satisfaction (e.g., Letourneau et al., 2014; Dennis, 2003).

_Inclusion Criteria_

Inclusion criteria were established to locate individuals who were hypothesized to have the characteristics and experiences necessary to answer the research question (Creswell, 1998). To participate in the study as a “peer” (i.e., mentees), an individual needed to meet the following inclusion criteria: (1) be the spouse or partner of an active duty service member of the Army, Air Force, Coast Guard, Marine Corps, or Navy; (2) be a parent/caregiver of a child with ASD whose child is between the ages of 2-17; (3) be a parent/caregiver who has lived with the family since the child with ASD was at least 1 year of age; (4) have experienced 0-1 PCSs since the diagnosis of the child with ASD; (5) be at least 18 years old; (6) be fluent in English; (7) have reliable and consistent access to the Internet; and (8) consent to participate in the study. There was one exception to criteria (4) based on military spouse need. One spouse had experienced two PCSs since the diagnosis of her child with ASD; however, one PCS was to a base the family had
been stationed at previously and; therefore, had moved to a new location only once since diagnosis.

Individuals recruited to be “peer partners” (i.e., mentors) in this study must have shared a key characteristics of the peers, namely, peer partners must have been a military spouse with a child with ASD. In addition, to be included in the mentorship program as a peer partner, an individual must (1) be the spouse or partner of an active duty or recently retired (within the past year) service member of the Army, Air Force, Coast Guard, Marine Corps, or Navy; (2) be a parent/caregiver of a child with ASD whose child is between the ages of 4-21; (3) be a parent/caregiver who has lived with the family since the child with ASD was at least 1 year of age; (4) have experienced at least 2 military PCSs since the diagnosis of the child with ASD; (5) be at least 18 years old; (6) be fluent in English; (7) have reliable and consistent access to the Internet (8) have completed the mentor training program; (9) have passed the mentor training program by scoring at least 80% on the post-test or by completing additional training activities; (10) have indicated availability to participate as a mentor; and (11) consent to participate in the study. Peer partners who did not score at least 80% on the post-test for the training and wanted to participate as mentors completed additional activities and questions to demonstrate competence of the training content.

Recruitment

Recruitment for both peer partners and peers was completed in three ways. First, previous research participants were contacted via e-mail. Second, contacts within the military community and relevant organizations were contacted via e-mail or social media. Third, information about the study was posted in social media groups and relevant
websites. If individuals were interested in participating, they contacted the researcher who verified the inclusion criteria and sent consent information. Individuals who met inclusion criteria for the peer partner group were asked to participate in either the training or comparison group based on their availability. Only those participants who were in the training group and were considered to have passed the training (i.e., scoring 80% on the post-test or completing remediation activities) were eligible to be peer partners for this study. Individuals who met inclusion criteria for the peer group were sent a pre-mentoring questionnaire including questions about their PCS experience, a self-efficacy scale, resiliency scale, and demographic information. Active recruitment of peers continued until 10 dyads had started the mentorship program and lasted approximately 3.5 months. If participants contacted the researcher after the 3.5 month period, they were included in the program if they were able to be reasonably matched to an available peer partner.

*Mentorship Program*

The MilSOARR mentorship program was a distance peer-to-peer support program designed to prepare military spouses with children with ASD for relocation by matching them with other military spouses with children with ASD who have more experience with relocations. Military spouses with children with ASD and more PCS experiences (i.e., “peer partners”), provided emotional, affirmational, and informational support to the military spouses with children with ASD and less PCS experience (i.e., “peers”). Peer-to-peer social support is characterized by individuals without professional qualifications, but with first-hand experience of a particular event or situation providing emotional, affirmation, and informational support to other individuals with less
experience (Dennis, 2003). These peer-to-peer social support programs may be conducted in-person (Kaunonen et al., 2010) or at a distance through the use of telephone (Rudy et al., 2001) or computer-mediated technology (Light et al., 2007). For this program, a computer-mediated technology, specifically e-mail, was chosen as the medium for communication due to its prevalence and accessibility.

To improve the quality of mentorship provided, several authors have suggested training participants who are peer partners prior to matching them with someone to mentor (Leger et al., 2015; Bierema & Merriam, 2002; Single & Muller, 1999). In this program, prospective peer partners completed a 1-2 hour online training about program procedures, peer partner roles and responsibilities, support skills, information about military and ASD challenges, and confidentiality. The focus of this online training was to prepare peer partners by explaining what their role was, suggesting strategies for achieving that role, and providing additional information to help them be successful in their responsibilities as mentors. For additional information regarding the training, see Chapter 3. Only participants who passed the training or completed additional exercises and questions were approved to be peer partners. Of the 22 peer partners who completed the training, 20 indicated interest in also being a mentor. Seventeen peer partners passed the training with a score of at least 80% on the post-test and 3 completed additional exercises and questions for a total of 20 eligible peer partners.

Before being matched with a peer partner, peers in the study completed a questionnaire with information regarding their PCS experience and concerns, self-efficacy, resilience, and demographic information. The list of PCS concerns was generated from previous research on problems military families with children with ASD.
may encounter in the process of a relocation (e.g., Davis & Finke, 2015a). The PCS concerns of each peer were compiled in a Microsoft Word document for the peer partner and peer to reference during the mentorship program, if topic ideas were needed.

Peer partners and peers were matched on some demographic characteristics, when possible. For example, dyads were first attempted to match on Service and location knowledge. If there were no matches, dyads were attempted to match on either Service or location knowledge. If there were still no matches, other characteristics such as the parent reported severity of their child with ASD or the age of their child with ASD were matched. However, given the scope of this investigation, it was not possible to match all dyads on these characteristics.

Procedures

After obtaining IRB approval to complete the study, recruitment messages were e-mailed to previous participants, organizations, personal contacts within the military community and posted on social media groups inviting interested individuals to contact the primary investigator. Individuals interested in participating in the study contacted the primary researcher. The primary researcher provided additional information about the study and clarified inclusion criteria. Once the individual confirmed the inclusion criteria and their interest in participating, I sent a copy of the consent form and related materials to the interested individual. If an individual met the criteria for and was interested in participating as a peer partner, I sent a pre-test for the training. After participants successfully completed the training and passed the post-test (or completed additional activities, if necessary), they were added to the group of possible peer partners. If an individual met the criteria for and was interested in participating as a peer, I sent a pre-
mentoring questionnaire which contained information regarding the individual’s PCS experience and concerns, self-efficacy, resilience, and demographic information. Upon receipt of the completed questionnaire, I matched the peer with a peer partner who had already completed and was considered to have passed the online mentor training.

After I matched a peer partner and peer, a Google e-mail group was created. These Google e-mail groups were only accessible to the researcher, peer partner, and peer and used as the only method of communication between the dyad throughout the length of the study. Electronic mail addresses were hidden from the peer partner and peer with only the researcher able to see them. I sent the first e-mail in the Google group briefly describing the mentorship program, reminding participants of the expectations, and attaching the peer’s PCS concerns document. After this point, I largely stayed out of the conversation between the peer partner and peer unless questions were asked directly to the researcher or communication stalled for a period of seven days. If neither the peer partner nor the peer communicated in the group within a seven-day time span, I e-mailed both the peer partner and the peer separately to check in, remind them of the mentorship program, and ask if they had any questions. Mentorship dyads were asked to communicate 2 times per week for 6 weeks regarding any topic about PCSing with a child with ASD as a military family. After 6 weeks, the primary researcher separately e-mailed the peer partner and peer a survey about their experiences. Follow-up e-mails were sent once per week for 4 weeks if the survey was not completed and returned.

Materials

Several measures were used to evaluate the effectiveness of the MilSOARR mentorship program. First, peers were assessed on PCS stress, PCS attitudes, self-
efficacy, and resilience before and after the mentorship program. Questions for PCS related stress and attitudes were generated based on previous literature investigating the experiences of military spouses with children with ASD (Davis & Finke, 2015a; 2015b; Davis et al., 2016a). The Generalized Self-Efficacy Scale (GSE) was used to determine the peer military spouses’ change in self-efficacy through participating in the mentorship program. The GSE is a self-administered, 10-item scale that assesses an individual’s strength in his or her ability to deal with challenging situations or obstacles (Schwarzer, Mueller, & Greenglass, 1998). Items are scored from 1 (not at all true) to 4 (exactly true) with higher scores referring to greater self-efficacy beliefs (Schwarzer et al., 1998).

Several research investigations across different countries have found internal consistencies for the GSE to be between .75-.91 (Scharzer et al., 1998). Peers were also assessed on their resilience before and after the mentorship program. The Connor-Davidson Resilience Scale (CD-RISC) was used to determine the level of resilience or the ability to successfully cope with stress following a stressor (Davidson & Connor, 2011). Although the CD-RISC is typically a 25-item assessment, the 10-item version was used here to reduce testing fatigue. The 10-item CD-RISC is a self-administered rating scale between 0 (not true at all) and 4 (true nearly all the time), with higher scores indicating more resilience (Davidson & Connor, 2011). This instrument has been used by several researchers for different populations including trauma survivors, Alzheimer’s patients, adolescents, adults, and individuals with PTSD (Davidson & Connor, 2011).

Internal consistency of the 10-item version of the CD-RISC has a Chronbach’s alpha value of .85 and correlates closely with the 25-item version (r=.92) (Connor & Davidson, 2003).
Second, peers and peer partners were asked to complete a questionnaire about the types of supports they felt they received or provided. A set of statements by Dennis (2002; 2010) was adapted for the purposes of this investigation. Some of the wording of the statements were changed to accommodate the goals of the MilSOARR mentoring program. For example, item “I felt my peer helped me feel better” for Dennis (2002) was adapted to item “I felt my peer helped me feel better about PCSing.” These statements were used to quantify the level and type of emotional, affirmational, and informational support the peers perceived receiving from their peer partners and the level and type of support the peer partners perceived providing to their peers. An average rating of emotional, affirmational, and informational support was calculated by averaging scores in each category. Similarly, an average rating of support was calculated by averaging the scores for all categories. Only data from the peers are presented in this manuscript.

Third, peers and peer partner were asked about their satisfaction with different aspects of the program, what challenges they encountered, what benefits they received, and what changes they would make. The satisfaction questions were derived from previous research on peer mentoring programs (e.g., Dennis, 2010; 2014; Cohen & Light, 2000). All questions and responses followed best practices in survey design as closely as possible to increase participation and decrease dropout (e.g., Rea & Parker, 2005). Each question asked about one experience using concise, neutral phrasing with responses presented in a logical sequence (Rea & Parker, 2005). Open ended questions were used strategically to obtain more detailed, precise information without increasing burden on participants (Rea & Parker, 2005). For example, open ended questions were used to inquire about challenges the peers and peer partners faced during the program. A final
question was used to gather any information the peers and peer partners felt was important but was not previously asked. Only data for the peers are presented in this analysis.

Data Analysis

Data were analyzed in one of two ways depending on the type of data. Quantitative data were analyzed using descriptive statistics. Specifically, means, ranges, standard deviations, and frequencies were calculated. Relocation stress, relocation attitude, self-efficacy, and resilience were analyzed using inferential statistics. Since there was a small sample size (N=12) and the data did not meet the normality assumption, a non-parametric test was used. The Wilcoxon Signed Ranks test has more power than a paired sample t-test when the sample size is small and nonnormal (Blair & Higgins, 1985). A statistical analysis program, SPSS version 24 (IBM, 2016) was used for all quantitative calculations.

Qualitative data were analyzed using a modified summative content analysis approach (Flick, 2014; Hsieh & Shannon, 2005). Summative content analysis can be used for a variety of data, including verbal data from interviews and surveys and is similar to other qualitative analysis techniques. For example, there is a focus on the meaning and interpretation of phenomenon using an iterative process that is data-driven (Flick, 2014). However, the goal of qualitative content analysis differs from other methods such as grounded theory in that qualitative content analysis is purely for the description of data and word or idea usage patterns rather than building a theory (Flick, 2014; Hsieh & Shannon, 2005).
First, the coding frame of main categories was selected as the satisfaction measure. Each qualitative question served as a “category” or one specific aspect of the data that was mutually exclusive from the other aspects of the data (Flick, 2014). Within each category, at least two subcategories describing the main category were derived from key words or ideas from the data (i.e., the responses to each question). For example, a main category was “challenges” taken from the question, “What were two challenges of your mentoring experience?” Subcategories describing responses of the participants included difficulty maintaining conversation and different characteristics of the peer partner. Each subcategory was operationally defined. Operational definitions for all subcategories are located in Appendix L. Second, any data meeting the definition for multiple subcategories was separated into smaller units descriptive enough to fit one subcategory. Third, I trialed the coding scheme to check operational definitions, completeness of subcategories, and fit of data within subcategories. Fourth, the operational definitions were used to code the remaining data. Finally, a second coder trained in the operational definitions of the subcategories coded between 20-24% of the data from each category. Inter-rater reliability was calculated to be 96% on average, ranging from 87%-100%. Reliability of at least 80% is considered to be reliable (Law & MacDermid 2008). Any discrepancies in the coding were discussed and operational definitions modified as needed.

**Results**

Demographics

Over 3.5 months, 36 individuals inquired about participating in the study as a peer and 28 indicated they were interested in participating after receiving additional
information and met the inclusion criteria. Of those 28, 16 returned their completed questionnaires, resulting in a participation rate of 57%. All 16 were matched with a peer partner. Two peers dropped out of the study after starting the mentorship program, resulting in 14 total peers. At the time of this analysis, 13 peers completed the mentorship program with 12 returning the post mentoring questionnaire. One peer as of the time of this analysis was still in the mentorship program.

Peers were military spouses between the ages of 33-46 with an average age of 37 (SD = 4.14). The peers were female (100%), non-Hispanic/Latino (83%), Caucasian/White (75%), had some college education (92%), and were stay at home parents/caregivers (92%). The active duty members of these military families served in the Air Force (2), Army (5), and Navy (5) for an average of 12.83 years (SD = 7.09) at an enlisted (6) or officer (6) rank. Most (11) participants reported earning between $50,000-$149,999 per year in family income. Military spouses in this study experienced zero (5), one (6), or two (1) relocations since their child was diagnosed with ASD and over half (7) expected to move within 6 months following the mentorship program. Military families had an average of two children (SD = 0.90), one of whom was diagnosed with ASD. Spouses reported their children with ASD to be male (11), an average of 8 years old (SD = 4.19), and diagnosed with autism with a mild (4) or moderate (8) severity of symptoms. Demographic variables are further detailed in Table 13.

Table 13
Demographic Information for Peers in the Mentoring Program

<table>
<thead>
<tr>
<th>Variable</th>
<th>Peers N=12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>37.18 (4.14)</td>
</tr>
<tr>
<td>Category</td>
<td>Details</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
</tr>
<tr>
<td>Race</td>
<td>Hispanic/Latino</td>
</tr>
<tr>
<td></td>
<td>Not Hispanic/Latino</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>African American/Black</td>
</tr>
<tr>
<td></td>
<td>American Indian/Alaska Native</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
</tr>
<tr>
<td></td>
<td>Caucasian/White</td>
</tr>
<tr>
<td></td>
<td>Native Hawaiian/Other Pacific Islander</td>
</tr>
<tr>
<td></td>
<td>Multiracial</td>
</tr>
<tr>
<td>Education</td>
<td>High School</td>
</tr>
<tr>
<td></td>
<td>Associate’s (2yr college)</td>
</tr>
<tr>
<td></td>
<td>Bachelor’s (4yr college)</td>
</tr>
<tr>
<td></td>
<td>Master’s (graduate school)</td>
</tr>
<tr>
<td></td>
<td>Doctorate (postgraduate school)</td>
</tr>
<tr>
<td>Employment</td>
<td>Full time</td>
</tr>
<tr>
<td></td>
<td>Stay at home caregiver</td>
</tr>
<tr>
<td>Income</td>
<td>35,000-49,000</td>
</tr>
<tr>
<td></td>
<td>50,000-74,999</td>
</tr>
<tr>
<td></td>
<td>75,000-99,999</td>
</tr>
<tr>
<td></td>
<td>100,000-149,999</td>
</tr>
<tr>
<td></td>
<td>Missing</td>
</tr>
<tr>
<td>PCS since diagnosis</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Service</td>
<td>Air Force</td>
</tr>
<tr>
<td></td>
<td>Army</td>
</tr>
<tr>
<td></td>
<td>Navy</td>
</tr>
<tr>
<td>Years of Service</td>
<td></td>
</tr>
<tr>
<td>Rank</td>
<td>Enlisted</td>
</tr>
<tr>
<td></td>
<td>Officer</td>
</tr>
<tr>
<td>Date of Next Move</td>
<td>Within 6 months</td>
</tr>
<tr>
<td></td>
<td>Within 1 year</td>
</tr>
<tr>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Number of Children</td>
<td></td>
</tr>
</tbody>
</table>
Child with ASD Age 8.2 (4.12)
Child with ASD Severity
Mild 4
Moderate 8

PCS Stress

Peers were asked about their current level of stress or worry about PCSing before and after the mentorship program on a scale of 1 (not at all) to 5 (very much). Results from the Wilcoxon-Signed Ranks Test were not significant \((Z = -0.288, p > .05)\) (see Table 14). However, peers in this study trended toward reduced levels of stress following mentoring. The average level of stress prior to the mentorship program was 3.25, indicating most spouses felt at least some stress regarding their next PCS. Following the mentorship program, the average level of stress decreased slightly to 3.0 (see Table 15). Although this was not a substantial change, most participants (9) either reported the same level or reduced level of stress (see Table 16). Also, before the mentorship intervention, two participants indicated their level of stress or worry was “very much;” however, after the program, no participants indicated the highest level of stress.

Table 14

<table>
<thead>
<tr>
<th>Wilcoxon-Signed Ranks Test of Pre-Mentor and Post-Mentor Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCS Stress</td>
</tr>
<tr>
<td>Z Statistic</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>(^a)Based on negative ranks</td>
</tr>
</tbody>
</table>

Table 15

<table>
<thead>
<tr>
<th>Means of Pre-Mentor and Post-Mentor Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Mentor</td>
</tr>
<tr>
<td>Mean (SD)</td>
</tr>
</tbody>
</table>
Table 16

PCS Stress Ranks

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCS Stress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Ranks</td>
<td>3a</td>
<td>5.33</td>
<td>16.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>5b</td>
<td>4.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Ties</td>
<td>4c</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

aPost Mentoring PCS Stress > Pre Mentoring PCS Stress
bPost Mentoring PCS Stress < Pre Mentoring PCS Stress
cPost Mentoring PCS Stress = Pre Mentoring PCS Stress

PCS Attitude

Participants were asked to rate their attitude towards PCSing before and after the mentorship program on a scale of 1 (very negative) to 5 (very positive). A Wilcoxon-Signed Ranks Test analysis demonstrated PCS attitude scores were not statistically different between pre- and post-mentoring (Z = -0.962, p > 0.05) (see Table 14).

However, there was a trend towards a more positive view of PCSing after the mentor program. The average attitude level of participants before the mentorship program was 3.33, indicating a neutral feeling towards PCSing. Military spouses rated their attitude as slightly more positive after the mentoring program with an average score of 3.67 (see Table 15). The majority of military spouses (10) either reported the same attitude or had a more positive attitude of PCSing after the mentorship program (see Table 17). Although the average attitude did not change much, there were no spouses after the program...
reporting very negative feelings toward PCSing and two additional spouses reporting a very positive outlook.

Table 17

PCS Attitude Ranks

<table>
<thead>
<tr>
<th>PCS Attitude</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Ranks</td>
<td>2(^a)</td>
<td>2.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>3(^b)</td>
<td>3.67</td>
<td>11.00</td>
</tr>
<tr>
<td>Ties</td>
<td>7(^c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Post Mentoring PCS Attitude < Pre Mentoring PCS Attitude
\(^b\)Post Mentoring PCS Attitude > Pre Mentoring PCS Attitude
\(^c\)Post Mentoring PCS Attitude = Pre Mentoring PCS Attitude

Self-Efficacy

Peers completed the 10-item GSE before and after the mentoring program to determine their change in self-efficacy. A Wilcoxon Signed-Ranks Test indicated that post-mentor self-efficacy scores were statistically different from pre-mentor self-efficacy scores ($Z = -1.997$, $p < .05$) (see Table 14). Prior to the program, the average spouse self-efficacy was 33.75; whereas, after the program, the self-efficacy was 35.25 (see Table 15). This resulted in a positive 4.44% change in self-efficacy. While the increase was small and the test statistic was close to $p = .05$, most participants either improved (5) or stayed the same (6) in regards to their perceived self-efficacy as measured by the GSE (see Table 18). The participants who rated the lowest self-efficacy (28, 29, 29) typically demonstrated the most gain (5, 3, 6, respectively). Individuals who rated highest self-efficacy at the beginning of the program had little or no change.

Table 18

Self-Efficacy Ranks
Resilience

The CD-RISC 10-item was used to measure participant resiliency before and after the mentorship program. Results from the Wilcoxon Signed-Ranks Test were not significant ($Z = -0.719, p > 0.05$) (see Table 14). However, there was a small, but positive overall change in resilience of +1.00%. Spouses rated their resilience before the program as 42.25 and after the program as 42.67, on average (see Table 15). Although average gains were minimal, the majority of participants improved (7) their resilience scores after the mentorship program (see Table 19).

Table 19

Resilience Ranks

<table>
<thead>
<tr>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td>Negative Ranks</td>
<td>3&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Positive Ranks</td>
<td>7&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Ties</td>
<td>2&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Post Mentoring Resilience < Pre Mentoring Resilience
<sup>b</sup>Post Mentoring Resilience > Pre Mentoring Resilience
<sup>c</sup>Post Mentoring Resilience = Pre Mentoring Resilience
Peer Support Survey

To determine the type of support the peers perceived from the peer partners, peers were asked to rate the degree to which they agreed with various statements reflecting emotional, affirmational, and informational support on a scale of 1 (strongly disagree) to 5 (strongly agree). The average rating of support across the 3 categories was 4.03, indicating that overall, participants in the mentorship program agreed they received emotional, affirmational, and informational support from their peer partner (see Table 20).

Table 20

<table>
<thead>
<tr>
<th>Support</th>
<th>Mean (SD)</th>
<th>Percent Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional</td>
<td>4.26 (1.11)</td>
<td>92%</td>
</tr>
<tr>
<td>Affirmational</td>
<td>3.75 (1.07)</td>
<td>82%</td>
</tr>
<tr>
<td>Informational</td>
<td>3.90 (0.89)</td>
<td>75%</td>
</tr>
<tr>
<td>Support</td>
<td>4.03 (0.97)</td>
<td>92%</td>
</tr>
</tbody>
</table>

The highest rated category for support was emotional support. The average rating for perceived emotional support was 4.26 and 92% participants agreed they received emotional support from their peer partner (see Table 20). Peers felt a sense of trust with their peer partner and their peer partner helped to create an accepting atmosphere. The peers agreed they felt comfortable asking questions of their peer partner and answering questions from their peer partner. Military spouses also agreed their peer partner showed concern and care for them, shared their concerns, and listened to what they had to say. The difference between the highest rated emotional support category and the lowest was
0.34, indicating peers consistently felt their peer partners provided emotional support.

Additional information on the peer’s received emotional supports is provided in Table 21.

Table 21

Peer Perceived Emotional Support

<table>
<thead>
<tr>
<th>Emotional Support</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>I felt like my peer partner listened to what I had to say.</td>
<td>4.08 (1.16)</td>
<td>1-5</td>
</tr>
<tr>
<td>I felt like my peer partner showed concern for my feelings.</td>
<td>4.25 (1.22)</td>
<td>1-5</td>
</tr>
<tr>
<td>I felt like my peer partner showed care for me.</td>
<td>4.25 (1.22)</td>
<td>1-5</td>
</tr>
<tr>
<td>I felt like my peer partner helped create an accepting atmosphere.</td>
<td>4.33 (1.15)</td>
<td>1-5</td>
</tr>
<tr>
<td>I felt like there was a sense of trust with my peer partner.</td>
<td>4.42 (0.79)</td>
<td>3-5</td>
</tr>
<tr>
<td>I felt comfortable asking my peer partner questions.</td>
<td>4.25 (1.22)</td>
<td>1-5</td>
</tr>
<tr>
<td>I felt comfortable answering my peer partner’s questions.</td>
<td>4.25 (1.22)</td>
<td>1-5</td>
</tr>
<tr>
<td>I shared my concerns with my peer partner.</td>
<td>4.25 (1.22)</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Participants also agreed they received affirmational support from their peer partner, with an average score of 3.75 out of 5 (see Table 20). One participant did not complete this section of the questionnaire; therefore, scores were reflective of 11 participants. Nine out of 11 participants agreed they received affirmational support from their peer partner. Only two participants disagreed they received affirmational support from their peer partner with averages for this section falling below 3. For these two participants, particular areas of lack of support were the peer partner helping them feel less alone, letting them know others are in a similar position, and becoming more confident in their abilities to solve PCS problems. Interestingly, two of these categories –
other people in a similar position and feeling less alone – were rated as the highest level of agreement for the other nine participants. The lowest rated aspect of affirmational support was feeling more self-confident at a rating of 3.36, 0.73 points lower than the highest rated category, other people experiencing a similar situation. More information regarding affirmational support is located in Table 22.

Table 22

Peer Perceived Affirmational Support

<table>
<thead>
<tr>
<th>Affirmational Support</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>My peer partner helped me feel better about PCSing.</td>
<td>3.73 (0.91)</td>
<td>3-5</td>
</tr>
<tr>
<td>I felt I became more self-confidence in my abilities to solve my PCS related problems.</td>
<td>3.36 (1.12)</td>
<td>1-5</td>
</tr>
<tr>
<td>My peer partner helped me feel less alone.</td>
<td>3.82 (1.33)</td>
<td>1-5</td>
</tr>
<tr>
<td>My peer partner helped me know other people experience similar situations.</td>
<td>4.09 (1.38)</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Informational support was perceived to have been provided by the peer partners throughout the mentorship program as the average score for these statements was 3.90 out of 5 (see Table 20). Seventy-five percent of participants felt they received informational support; however, this was the lowest percentage of peers out of the three categories of support. Participants generally perceived the peer partner to have shared related experiences, offer helpful suggestions, and provide useful information as these were the highest rated statements. The other statements, while still satisfactory, were comparatively lower in the degree of agreement. Specifically, the lowest three statements reflected the peer partner informing the peer about what to expect in certain situations, sharing resources, and the peer feeling like they gained knowledge to help them solve
PCS related problems. The difference between the highest rated category (shared experiences) and the lowest rated categories (what to expect and gained knowledge to help solve PCS problems) was 0.75, the largest difference of the three categories. While peer partners provided informational support to most peers, it was inconsistent across dyads. For additional information, refer to Table 23.

Table 23

Peer Perceived Informational Support

<table>
<thead>
<tr>
<th>Informational Support</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>My peer partner provided useful information.</td>
<td>4.00 (0.95)</td>
<td>2-5</td>
</tr>
<tr>
<td>My peer partner gave me helpful suggestions.</td>
<td>4.17 (0.72)</td>
<td>3-5</td>
</tr>
<tr>
<td>My peer partner told me what to expect in certain situations.</td>
<td>3.58 (1.24)</td>
<td>1-5</td>
</tr>
<tr>
<td>My peer partner shared their PCS, military, and/or autism related experiences with me.</td>
<td>4.33 (0.65)</td>
<td>3-5</td>
</tr>
<tr>
<td>My peer partner shared PCS, military, and/or autism related resources with me.</td>
<td>3.75 (1.29)</td>
<td>1-5</td>
</tr>
<tr>
<td>I felt like I gained knowledge to help solve my PCS related concerns.</td>
<td>3.58 (1.12)</td>
<td>2-5</td>
</tr>
</tbody>
</table>

Peer Satisfaction Survey

Peers were asked to rate their level of satisfaction on a scale of 1 (very dissatisfied) to 5 (very satisfied) with various aspects of the mentorship program including the quality of the program, quality of the mentorship match, quality of the mentorship relationship, duration of the program, and frequency of contact during the program. An average satisfaction rating was calculated per participant by averaging the five categories together.

Overall, peers were satisfied with their experience in the mentorship program with the average rating of 3.92. In particular, peers were most satisfied with the quality of their
relationships with their peer partners and the duration of the program. These two
categories received scores of three and above for every peer and averaged 4.12 and 4.25,
respectively. The lowest rated category, quality of the match between peer partner and
peer, was more varied. Although the average was 3.67 and the mode was 5, two peers
rated this category as “very dissatisfied” and one rated it as “dissatisfied.” Ten peers
stated they would recommend this mentorship program to other military spouses with
children with ASD and little PCS experience. Over half of the peers (58%) indicated they
intended to stay in contact with their peer partners after the program ended. Information
regarding the satisfaction of mentorship program components as well as peer
recommendations to other military spouses and intention to stay in contact with peer
partners in Table 24 and 25, respectively.

Table 24

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of the program</td>
<td>3.92 (1.16)</td>
<td>2-5</td>
</tr>
<tr>
<td>Quality of the match between you and your peer</td>
<td>3.67 (1.56)</td>
<td>1-5</td>
</tr>
<tr>
<td>Quality of your relationship with your peer</td>
<td>4.17 (0.94)</td>
<td>3-5</td>
</tr>
<tr>
<td>Duration of the program</td>
<td>4.25 (0.87)</td>
<td>3-5</td>
</tr>
<tr>
<td>Frequency of contact</td>
<td>3.83 (1.03)</td>
<td>2-5</td>
</tr>
<tr>
<td>Average Satisfaction</td>
<td>3.97 (1.01)</td>
<td></td>
</tr>
</tbody>
</table>

Table 25

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you recommend other military spouses with children with autism who have limited PCS experience participate in this mentorship program?</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Do you plan to stay in contact with your partner?</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>
Peers were also asked short answer questions about the challenges they experienced, the benefits they received, and the changes they would make to the program. Subcategories, frequencies, and examples are provide in Tables 26, 27, and 28, respectively. Peers discussed two main challenges they faced while participating in the program. First, eight peers commented on the difficulty of maintaining conversation because of busy schedules or coming up with questions. For example, peers said it was challenging “finding time to sit down and ask questions,” and “it is difficult when busy to maintain communication.” A military spouse also commented that since her “son’s services were interrupted and [they] took precedence over emailing frequency” it was more difficult to respond at times. Another peer suggested, “coming up with more questions toward the end of the program” was a challenge for her. Second, nine military spouses discussed the difficulty of having different characteristics than their peer partners, specifically related to a different Service, different location, and different severity level for their children with ASD. One peer stated it was challenging when her mentor was from a different service because there are “differences among military branches for the same program.” Even though her mentor may have been providing good information, this peer may not have been able to use it because the program is run differently for her Service. Other peers stated it was challenging when their peer had not been stationed at the installation where they were PCSing. For example, one peer said, “I asked my non-location specific questions over the first two exchanges. My other questions were specific to the area we plan to move to.” Peers commented on the differences among their children in relation to their peer partner’s children as well. One
spouse said, “Her child was completely different from my child. I needed someone whose child was close in age and ability level.”

Table 26
Peer Challenges of Mentorship Program

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Participants (%) N=12</th>
<th>Comments (%) N=20</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain Conversation</td>
<td>8 (67%)</td>
<td>10 (50%)</td>
<td>“Finding time to response to the emails”</td>
</tr>
<tr>
<td>Different Characteristics</td>
<td>9 (75%)</td>
<td>10 (50%)</td>
<td>“Communicating in a timely manner”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“Her kiddo was so much older than mine”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“Differences among military branches for the same program, e.g., EFMP”</td>
</tr>
</tbody>
</table>

Peers stated the three main benefits they received from participating in the mentorship program were community and resources. Seven peers commented on the sense of community and the support system they gained through the program. One peer stated it was a benefit “[knowing] that others are going through the same struggles as you and you are not alone.” Other peers mentioned a “feeling of understanding and community,” being “validated,” and “knowing that what we’re doing isn’t impossible” as benefits of the program. Peers also recognized the opportunity to have “an outside party help you see other options” as a benefit of having a community. The other subtheme for benefits was resources. Six peers discussed resources their peer partner mentioned during their e-mail exchanges. For example, some parents mentioned specific resources such as research on ABA or Tricare, while others provided more general descriptions of information. One peer said she “was given resources [she] didn’t know about” by her
Another stated her peer was “a wealth of knowledge” for her situation.

Other benefits listed by two peers were self-confidence in understanding how to better prepare children with ASD for relocation and understanding differences among Services.

Table 27

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Participants</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(%)</td>
<td>(%)</td>
</tr>
<tr>
<td></td>
<td>N=11</td>
<td>N=19</td>
</tr>
<tr>
<td>Community</td>
<td>7 (64%)</td>
<td>10 (53%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td>6 (55%)</td>
<td>6 (32%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2 (18%)</td>
<td>3 (16%)</td>
</tr>
</tbody>
</table>

Recommendations for improving the mentorship program were expressed by the peers in three subcategories – communication mode, matching peers and peer partners, and time. Four peers suggested changing the communication mode to something other than e-mail such as texting or a message board. Five peers commented on establishing criteria for matching peers and peer partners. Characteristics listed as important to consider for matching were level of severity for the child with ASD, Service, and installation location. Finally, five peers recommended changing the time frame for the mentorship program, although the direction of the change was inconsistent. Some peers
wanted the program to be longer to provide assistance before, during, and after the PCS. Specifically, one spouse said, “Cover the cycle of the move. Once the new residence has taken place, I think that is when I’ll have a lot of questions.” While others recommended reducing the number of e-mails per week or shortening the program to four weeks because “it was hard finding things to ask in the last weeks.”

Table 28
Peer Recommendations for Mentorship Program

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Participants (%)</th>
<th>Comments (%)</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=11</td>
<td>N=17</td>
<td></td>
</tr>
<tr>
<td>Communication Mode</td>
<td>4 (36%)</td>
<td>4 (24%)</td>
<td>“Text questions/responses”</td>
</tr>
<tr>
<td></td>
<td>“Possibly adding texting instead of email”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“Child have same ability levels”</td>
</tr>
<tr>
<td>Match</td>
<td>5 (45%)</td>
<td>7 (41%)</td>
<td>“Better compatibility between peer partners”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“Cover the cycle of the move, especially once the new residence has taken place. I think that is when I’ll have a lot of questions.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“Allowing for a longer period of time for correspondence.”</td>
</tr>
</tbody>
</table>

Ten peers commented in the open-ended question at the end of the satisfaction survey. Seven peers said they had a good experience. For example, one peer said, “I feel that this program was beneficial; however, due to my educational background, I feel that I had the upper hand and knew a lot of the intervention information. However, I do feel that people less educated about the resources would benefit tremendously.” Another peer said, “I felt very supported and very safe asking my questions. I also got great ideas on
how to prepare my son for the move.” Even those who did not find the program as helpful said they felt the program would be beneficial to others under different circumstances. A participant stated, “I think that if my family currently lived at an Army base, it would have been easier to look into the resources my mentor shared with me.”

**Discussion**

Previous research has indicated military families with children with ASD report significant difficulties when PCSing with their child with ASD (Davis & Finke, 2015a; Davis et al., 2016a). Spouses have commented on challenges finding intervention providers, navigating the system of new policies and eligibility criteria, and helping their child with ASD adjust to new locations, among other things, while also perceiving limited support (Davis & Finke, 2015a; 2015b; Davis et al., 2016a). The DoD has established programs to help military families with children with special needs (e.g., EFMP); however, these programs may not be sufficient to meet the needs of these families. One possible PCS support for military families with children with ASD is an online peer mentorship program with another military spouse with a child with ASD who has more PCS experience. The first purpose of this investigation was to determine the effect of the Military Spouse Online Autism Relocation Readiness (MilSOARR) mentorship program on PCS stress, PCS attitude, self-efficacy, and resilience of peer participants. The second purpose was to describe the support experiences and program satisfaction of the military spouses with children with ASD who participated as peers. Results from this study indicated military spouses in the online peer mentorship program experienced small positive changes in PCS stress, PCS attitude, self-efficacy, and resilience; however, only changes in self-efficacy were statistically significant. Although
the changes were small, some spouses seemed to benefit from the additional support provided by the peer partners in terms of emotional, affirmational, and informational support as well as small, positive improvements in self-efficacy. These data suggest an online peer mentorship program may be a helpful program to prepare military spouses with children with ASD for relocation.

Spouses in this study reported higher scores, on average, for self-efficacy and resilience than typical adult populations. A study by Schwazer et al., (1998) found the mean of the GSE to be around 29.28, 4.47 points lower than spouses reported at the beginning of this study. Further, the CD-RISC manual reported an average score of 31.8 for US adults, 10.45 points lower than spouses reported at the beginning of this study. Both scores provide additional evidence to the self-efficacy and resiliency many authors use to describe some military spouses (e.g., Braisure et al., 2012) and parents of children with ASD (e.g., Bayat, 2007). However, despite these higher scores, military spouses with children with ASD still reported stress and negative attitudes towards PCSing in this study and others (e.g., Davis & Finke, 2015a). Also, even though many spouses were above the average scores for both assessments, many participants reported a gain in self-efficacy and/or resilience following the peer mentoring program. This indicated that although military spouses are fairly resilient, they may still benefit from additional support, especially for events associated with higher levels of stress.

The only pre-post mentoring variable that was significant was self-efficacy. After the mentoring program, military spouses reported an increase in self-efficacy from 33.75 to 35.25. Other research using self-efficacy as an outcome measurement for distance peer mentorship programs has found small increases in self-efficacy as well. In a study by
Ljungberg and colleagues (2011), mentees reported an average increase in self-efficacy of 0.72 on the GSE over a 6-month mentorship program for individuals with spinal cord injury. Self-efficacy is derived from four different concepts (i.e., previous performance, vicarious experiences, verbal persuasion, and emotional arousal; Bandura, 1977). Some of the supports the peers perceived were related to some of these concepts. For example, most peers agreed their peer partner shared their experiences which is an example of “vicarious experiences.” One reason gains were small may be because previous performance is considered the most influential of the four self-efficacy concepts (Bandura, 1977). Another reason may be the self-efficacy instrument is more sensitive to lower scores than higher scores (Schwazer et al., 1998). Since participants typically scored in the upper range of possible scores, there was less room on the instrument to improve. However, increases self-efficacy, even if small, may have practical significance. Self-efficacy is related to coping and stress (Weiss et al., 2013); therefore, increasing self-efficacy for military spouses with children with ASD may lead to better coping and less stress during relocations.

Military spouses reported a small decrease for PCS stress and a small increase in PCS attitude after participating in an online peer mentorship program, with no spouses reporting “very much” stress or a “very negative” attitude towards PCSing. While these gains are small, they may still influence the military spouses. Interviews and surveys of military spouses with children with ASD have found family stress and child with ASD stress as a result of PCSing (Davis & Finke, 2015a; 2015b). In some cases, the military spouses stated these stresses overlapped and influenced each other (Davis & Finke, 2015a; 2015b). Based on family systems theory, a change in stress or attitude for one
family member may cause changes for others (Minuchin, 1985; Cox & Paley, 1997). For example, in this study, the small but positive changes in PCS stress and PCS attitude may ripple over to the active duty spouse or children.

Limited gains in resilience may be due, in part, to lack of sensitivity of the instruments to determine changes over a relatively short period of time. The resilience assessment only had 10 questions and participants tended to score on the upper quadrant of the possible scores, leaving a limited amount of space for improvement. Small increases may also be a result of the complicated phenomena of resiliency. Resiliency is multifaceted and has several definitions, one of which is the ability of an individual to “bounce back” after a challenging life situation (Aburn, Hons, Gott, & Hoarce, 2016). Therefore, resilience may not be possible to measure until after the stressful life event or, in this case, after the peer has experienced the PCS. In order to achieve greater improvements in resilience, more sensitive measures may need to be used, the time of measurement may need to be shifted, or alternative concepts may need to be targeted as outcomes.

Despite small changes in PCS stress, PCS attitude, self-efficacy, and resilience, the majority of military spouses reported satisfaction with the mentorship program and recommended it to others. Previous research in distance peer mentorship interventions have reported similar results. Over 80% of participants in telephone peer mentor support interventions for smoking (Solomon et al., 2000), postpartum depression (Dennis 2010; Dennis et al., 2009), and breastfeeding (Dennis et al., 2002) were satisfied with the program. Similarly, most participants in previous distance peer mentorship programs would also recommend the program to others (Dennis 2010; Dennis et al., 2002; Rudy et
al., 2001). Even though peer support mentorship programs do not always impact clinical outcomes such as self-efficacy to a significant degree, there seem to be benefits of these programs for many different populations. Pistrang et al., (2012) further echoed these findings in the results of interviews with women who participated as mentees in a telephone peer support program for women with gynecological cancer. Pistrang and colleagues (2012) concluded common clinical outcome measurements such as psychological distress were “unlikely to capture some of the key benefits described by patients” in peer support intervention and other outcomes related to support may be equally important to determine (p. 1089).

Support outcomes from the current online peer mentor intervention found military spouses reported receiving emotional support, affirmational support, and informational support from their mentors during the 6-week program. Eleven out of twelve military spouses reported feeling supported across the three support domains. A review of articles investigating online social support found parents reported receiving emotional, affirmational, and informational support from their online groups (Doty & Dworkin, 2014). Of the three categories of support, emotional was rated the highest, with 92% of military spouses receiving this support. Affirmational support and informational support were rated slightly lower with 81% and 75% of the participants, respectively, agreeing they received these types of support. Other distance peer mentorship programs have found similar patterns of results. In two studies examining telephone peer support interventions for women with postpartum depression, fewer mentees reported receiving affirmational and informational support than emotional support (Dennis 2003; Dennis 2010). One reason for this may be mentees are searching primarily for emotional support.
from these programs. In a systematic review of online parent supports, emotional support was the most common support sought by mothers (Niela-Vilen et al., 2014). It is possible for mentees to obtain informational support from a variety of sources such as doctors or, for military spouses, EFMP personnel. Another explanation for these results may be emotional support is the easiest support for mentors to provide. Emotional support requires active listening skills; whereas, affirmational and informational support require a good match between mentor and mentee. If the match is not adequate, the mentee may not feel the mentor is similar to them as in affirmational support or the information is relevant as in informational support. In addition to feeling supported by their mentor, military spouses reported a sense of community and information about resources as benefits of the peer mentor program. Participants felt the online peer mentor program gave them a support system and helped them realize others were going through the same thing and they were not alone. Participants also mentioned obtaining information on resources such as ABA and Tricare from their mentors. Previous research from the peer mentoring literature corroborates these findings. Participants in peer support programs for mental illness (Luckstead, McNulty, Brayboy, & Forbes, 2009), breast cancer (Dunn et al., 1999), postpartum depression (Dennis 2003; Dennis 2010), gynaecological cancer (Pistrang et al., 2012), and melanoma (Rudy et al., 2001) all listed feeling less alone, receiving information about resources, or both as benefits of participating in a mentor program.

Although military spouses reported high satisfaction overall and benefits associated with the peer mentorship program, several reported challenges to the program and offered recommendations. First, military spouses mentioned challenges related to
maintaining the conversation with their peer mentor as a result of busy schedules and coming up with questions every week. Parents of children with ASD frequently report spending more time on daily care tasks and attending therapies which limits the amount of time they have for other activities, including seeking support (Myers et al., 2009). Also, most of the mentorship dyads in this study communicated throughout the late spring and mid-summer when families may have vacations, reunions, weddings, or other events. In light of this challenge, participants recommended changing the time of the program by either increasing the time frame to include the entire cycle of the PCS or reducing the number of e-mails required per week. By extending the time frame, military spouses would be able to ask questions specific to different stages of the PCS. For example, they could ask questions before the PCS about how to better prepare their child with ASD or the paperwork needed at each stage of the PCS process as well as after the PCS with establishing new interventions including a new IEP. One spouse commented specifically she would likely have questions after PCSing that she would not know about until it happened. Additionally, by reducing the number of e-mails required of the program per week, the military spouses would be able to spread out their conversations without feeling pressured to continually come up with questions.

Second, military spouses stated one of the challenges with the program was the match with their mentor. Some participants felt their mentor was not similar to them in the way they needed. Spouses said they were looking for specific information about services at their next location, but the mentor had not been stationed in that location and was not able to provide specific information. The challenges with the peer partner-to-peer match influenced the peer’s perception of the mentorship program as well. Peers who
rated the match with their peer partner lower were more likely to rate emotional, affirmational, and informational support lower. Anecdotally, they demonstrated a pattern of limited or no improvement on PCS attitude, PCS stress, self-efficacy, and resilience as well. Facilitating a good match may be a pivotal component of mentorship programs, especially those housed online.

Difficulty with setting an appropriate match has been noted in other peer mentoring interventions as well. In a telephone peer support intervention for individuals with melanoma, some participants reported the least helpful part of the intervention was lack of a good match with their peer mentor (Rudy et al., 2001). Matching participants is crucial for the success of any peer mentorship program (Bierema & Merriam, 2002; Single & Muller, 1999). Women in a breast cancer peer support program viewed the support as more helpful when they perceived their mentor was similar to them (Dunn et al., 1999). However, choosing the correct characteristics to match mentoring dyads on is challenging and the correct combination is unknown (Single & Muller, 1999).

To help resolve the matching issue, spouses recommended matching peers and peer mentors based on their Service, installation, and level of functioning and age of their child with ASD. For military spouses, matching on Service and installation may be beneficial because each Service runs their own EFMP program (OAR, 2011) and each installation has different supports on base and in the surrounding community. In order to provide specific information about EFMP services, school districts, intervention providers, housing opportunities, etc., the mentor would likely need to be associated with the same Service as the mentee and have been located at the same installation previously. Matching mentors and mentees on the level of severity of the child with ASD may also
be beneficial because mothers of children with a child with more severe ASD may not feel as much of a connection with a mother with a child with less severe ASD. Studies of online ASD support groups have found mothers reported comparing their family situations to other families and feeling more comfort when other families were similar to theirs (Reinke & Solheim, 2014). In addition to feeling more like their mentor is similar to them, matching military spouses with children with ASD on Service, installation, and level of severity of the child with ASD may be more likely to provide the specific information the mentee is looking for in the mentorship relationship.

Third, spouses recommended communication modes other than e-mail such as texting or a message board. Participants in other peer mentor studies have suggested alternative forms of communication as well. For example, some individuals receiving telephone peer support for breastfeeding suggested e-mail or face-to-face communication (Dennis, 2010). Further, Doty and Dworkin (2014) found a drawback mentioned by parents participating in online social supports was the large volume of e-mail from the groups. Offering multiple modes of communication with mentors may allow dyads to choose which is most convenient or appropriate for specific purposes. Bierema and Merriam (2002) also advocated for multiple communication modes, if possible, to increase communication and strengthen the mentoring relationship. For example, peer mentorship programs could utilize e-mail for asynchronous communication between peer mentors and mentees requiring longer or less time sensitive questions as well as instant messaging for synchronous communication for immediate concerns. While mobile technology has not yet been used for peer support, some studies have supported its use to monitor mood and coping skills (McColl, Rideout, Parmer, & Abba-Aji, 2014). Prior to
introducing mobile technology as the primary communication medium for peer support, the issue of confidentiality should be considered (McColl et al., 2014). Instantaneous access to a peer partner may be helpful for immediate questions for the peer, but may also violate the peer partner’s personal boundaries.

**Limitations**

The results of this study are tempered by several limitations. First, this investigation lacks a control group; therefore, alternative hypothesis for the changes in PCS stress, PCS attitude, self-efficacy, and resilience were not able to be ruled out. For example, participants may have felt more supported as a result of doing something, regardless of what that something was, rather than nothing. Second, the small sample of military spouses self-selected to participate in the study based on research announcements and may not be representative of the population. This method of recruitment may have also led to a biased selection of participants with characteristics inherently different than other military spouses with a child with ASD. Third, military spouses may have reported higher scores on the questionnaires due to social desirability bias such as being polite (e.g., reporting greater satisfaction scores to please the researcher) or portraying themselves in a more positive way (e.g., reporting higher scores for self-efficacy).

**Future Directions**

While findings from this study were positive, the lack of control group and random sample limit the interpretation of results. Future research should address the methodological weaknesses in this investigation by using an experimental design with a larger sample size to determine the effect of an online peer mentor intervention for
military spouse with children with ASD. Future research should also investigate the long term effects of receiving mentorship. Military spouses who receive mentorship before PCSing may have a different view of the program after PCSing. Researchers should consider participatory design to improve peer mentor programs to more effectively meet the needs of the military spouses with children with ASD. Future research should consider adapting the program for other populations such as National Guard, Reservists, active duty members or other military stressors such as deployment. In addition to support and satisfaction measures, researchers should consider the use of validated assessments more sensitive to change across time periods to accurately determine the effect of peer support interventions. For example, the full version of the CD-RISC may have been sensitive enough to detect greater changes in resilience before mentorship, after mentorship, and after relocation for participants in this study. Assessments across time periods may be more representative of true measures of stress and resilience because the data collection would be before and after the stress-inducing event.

Conclusion

Despite small improvements in PCS stress, PCS attitude, self-efficacy, and resilience, military spouses with children with ASD who participated in an online peer mentoring program for relocation reported receiving emotional support, affirmational support, and informational support. Participants in the program were satisfied overall and listed benefits such as gaining a sense of community, not feeling alone, and learning information to help their family PCS to their next installation. Spouses also listed some challenges related to their mentorship experience and recommended changes for the future; however, no participants reported negative effects of the mentorship program.
Although some methodological weaknesses limit the generalization and interpretation of results, the positive outcomes suggest future research is warranted. An online peer mentor program for military spouses with children with ASD may be beneficial for helping support spouses’ PCS readiness.
Chapter 5

Discussion

The purpose of this dissertation was to develop and evaluate the Military Spouse Online Autism Relocation Readiness (MilSOARR) training and mentorship program. Chapter 2 reviewed 12 effective distance peer support mentorship programs to determine evidence-based mentor training procedures. Chapter 3 outlined how these evidence-based mentor training procedures and adult learning principles were used to develop an online mentor training program. Results from this program development and implementation project indicated military spouses effectively learned the program procedures and communication strategies related to the three types of support peer mentors provide (i.e., emotional, affirmational, informational) by progressing through the training modules. Further, participants in the training felt it helped them become a better mentor and they would recommend the training to other military spouses who want to provide mentorship. Chapter 4 reported the effects of the online mentoring program on the peers, the military spouses with children with ASD and little PCS experience. Peers reported small, but positive outcomes relative to PCS stress, PCS attitude, self-efficacy, and resilience. They also felt the mentorship program was beneficial and would recommend it to other military spouses.

Communication strategies the peer partners learned in the training carried over into support for their peers in the mentorship program. The communication response framework, CAS (Care, Aware, Share), was developed to help peer partners provide
emotional, affirmational, and informational support to their peers. Prior to the training, many peer partners used the “Share” strategy to share their experiences or information during a case study; however, this only provided informational support. After the training, 91% of peer partners used all three strategies to deliver all three types of support during a case study. Similarly, 92% of peers agreed they were supported in all three types of support during the mentorship program.

The relative proportions of peers demonstrating CAS strategies and peers agreeing with supports matched well. For example, the highest percentage of peers agreed they received emotional support, and the highest percentage of peer partners demonstrated use of this support in the training program. This indicated the training for “Care” support was sufficient to transfer into the actual mentorship relationship. The other two types of support, “Aware” (affirmational) and “Share” (informational) were learned and subsequently provided to peers as well; however, these two supports seemed to be more dependent on the match between the peer and the peer partner. The three peers who did not report receiving affirmational support, informational support, or both also reported three of the four lowest scores for overall satisfaction with the mentor program and quality of the peer-peer partner match. It is possible the lack of support for these three peers could be remedied by better peer partner matches; however, some peer partners also suggested providing additional information regarding the “Aware” and “Share” portions of the CAS framework. Addressing matching concerns and additional affirmational and informational support training may produce even more positive outcomes for peer partners and their peers during the mentorship relationship.
The MilSOARR training and mentorship programs had high satisfaction and recommendation ratings from both the peer partners regarding the training and the peers regarding the mentorship program. This indicated both peer partners and peers found the MilSOARR program valuable. However, both groups of participants recommended changes to certain aspects of the program. Peer partners recommended changes to the content in their review of the training program, although the changes were varied between more content, less content, and different content. Peer partners also recommended changes to the design of the program such as adding video or audio and addressing the technology problems. Other suggestions based on the peer experience were changing the communication mode, better matching between peer partners and peers, and modifications to the duration of the program. Participants in this study offered their advice for implementing these changes and future research should seek to address some of their suggestions.

Participatory design may be one way to address issues discussed by participants in the MilSOARR program. Participatory design is a methodology where multiple stakeholders are involved in the entire research process, rather than as a confirmatory step at the end (Spinuzzi, 2005). Researchers, users, and organization leaders are team members from the initial exploration through prototyping (Spinuzzi, 2005). Researchers work with relevant stakeholders to collaboratively develop reasonable solutions (Spinuzzi, 2005). Participatory design methodology usually involves three steps. First, researchers and stakeholders complete an initial exploration of the program (Spinuzzi, 2005). For the MilSOARR program, researchers would then meet with military spouses, EFMP personnel, and military representatives to explore the needs and capacities for
supports. Second, after several observations, interviews, and focus groups, the team would develop a draft of the MilSOARR program (Spinuzzi, 2005). Within this step, military spouses with more and less PCS experience would provide input into the program and potentially fix the problems listed in the MilSOARR pilot such as adding content to the training or improving the matching protocol. Third, researchers would create and disseminate a prototype of the MilSOARR program to all stakeholders for trial and feedback (Spinuzzi, 2005). The process then repeats until team members are satisfied with the result. Although participatory design is still a young concept, there is some evidence of success in the health field (e.g., Terp, Laursen, Jorgensen, Marinz, & Bjornes, 2016).

While participatory design is a methodology focused on designing real-world solutions through the perspective of stakeholders, especially the users of the program, several cautions must be considered. Participatory design requires investment in time, money, and personnel resources that may limit feasibility for some projects (Spinuzzi, 2005; Scariot, Heeman, & Padovani, 2012). Participatory design also requires teamwork and a high level of communication among members in order to be successful (Scariot et al., 2012). A “common language” wherein researchers, institutional representatives, and participants can communicate effectively and without misinterpretation must be established (Spinuzzi, 2005). Researchers must be able to differentiate between the suggestions or criticisms of stakeholders that are helpful and those that are redundant (Scariot et al., 2012). Finally, all team members must be aware of the difference between ideal situations and reality (Spinuzzi, 2005; Scariot et al., 2012). Perfecting a program or product should not be viewed as the end goal, but rather creating a program or product
that optimizes real-world constraints with tangible benefits. However, developing a better, more effective program or product is just one step toward improvements in the lives of military spouses with children with ASD.

To be adopted into practice, researchers also need to consider an implementation plan. According to a research synthesis of the evidence for implementation science, Fixen and colleagues (2005) determined dissemination alone and training alone are not effective strategies for wide-spread program adoption. They recommended researchers consider an implementation science framework following a sequence of stages. The first stage is exploration of the needs and resources of the community to determine an effective program and its potential fit within the community. This stage includes investigations such as the pilot study of the MilSOARR program presented in this dissertation as well as the results of the participatory design methodology. After these two precursors, researchers would have an effective program designed to fit the restrictions of the community. The second stage is program installation where researchers and institutions prepare for the dissemination of the program by creating materials, training personnel, etc. The third stage is initial implementation of a trial version of the program in a specific market, for example, at a few specific military installations. Once a trial has been completed, a new cycle of participatory design occurs to revise the program to better meet the real-world, large scale needs of organizations and participants. The fourth stage incorporates changes from the second round of participatory design and launches the program on a larger scale with more installations. The fifth stage involves evaluating the program in full operation and determining inefficiencies and weaknesses to revise the program. Finally, the last and on-going stage is sustainability. Stakeholders
work together to determine what aspects of the program need to be adapted based on changes to the institution or participants over time.

Although there is little research regarding specific organizational or institutional characteristics influencing the implementation of programs, Fixen et al., (2005) hypothesized these factors could help or hinder program adoption on a large scale. They recommend aligning programs with existing policies and practice to reduce resistance. For the MilSOARR training and mentorship program, there are two pathways, one inside the military and one outside the military, with the possible infrastructure already in place to support the program.

Within the military, there are spouse groups sponsored by the military, but led by military spouses, such as Key Spouses and Family Readiness Groups. While not disability focused, these groups could be an appropriate venue for disseminating information about the MilSOARR training and mentorship programs. These groups have some goals that align with those of the MilSOARR program such as reducing family stress (Operation Ready, no date). Further, a virtual network for geographically isolated military spouses is already established. Military spouses with children with ASD will likely have heard of these groups and may already be a participating member. However, there was no mention of disability or ASD in the Army Family Readiness Group Leader’s Handbook (Operation Ready, no date) and the Air Force Key Spouse Reference Guide (United States Air Force DCS/Manpower & Personnel, 2010). Military spouse groups already have many of the program characteristics to help a program such as MilSOARR be successful, but time and resources must be used to support implementation of special needs support within these groups.
Outside the military, there is an online community called American Military Families Autism Support (AMFAS), a grassroots network of military families who have a child with ASD and has over 6,000 “likes” on Facebook. According to the AMFAS Facebook page (2016), the purpose of this group is to provide “news, information, community and support to military families dealing with Autism Spectrum Disorder.”

The AMFAS group also supports smaller, local installation groups in some areas for additional networking. Several military spouses in previous research studies have mentioned using AMFAS as part of their support system (Davis & Finke, 2016b; Freuler & Baranek, 2016). However, as evidenced by comments from peer partners and peers in this dissertation, there seems to be a gap in support for military families with children with ASD not completely filled by this group. Incorporating the MilSOARR program, specifically the mentor training, with the AMFAS network may improve the supports already in place. For example, the military spouses in the training responded with informational support, but frequently excluded providing emotional support. Since emotional support was the primary support some parents, specifically mothers, searched for in online parent groups (Niela-Vilen et al., 2014), this may be an important area to address. Developing a dyadic mentorship network within the AMFAS group may deliver more individualized, specific support to newer military spouses with children with ASD. Those peers would have a direct line of communication with a more experienced spouse and may feel more comfortable asking questions to an individual rather than an entire group. The AMFAS group may be sufficient to support some spouses, but others may need more than what is currently offered.
Applications to Other Military Populations

Military spouses with children with ASD experiencing a relocation may not be the only military subgroup who could benefit from peer support. Military families with children with ASD experiencing deployment, spouses with children with other special needs, National Guard/Reservist families, and male spouses may all have characteristics putting them at risk for isolation and a limited social support network. The MilSOARR training and mentoring program may be easily adapted to help these families as well. For distance peer mentorship programs, the training components are very similar. Given the overlap in target population, communication mode, and type of support, it is likely many of the same content modules would apply to a deployment mentor training as the PCS mentor training, for example. Rather than a module only on issues related to military spouses with children with ASD and PCSing, additional research would need to be completed to develop specific informational modules relevant for different groups in different contexts.

Children with Other Special Needs

Military families with children with ASD may not be the only military subgroup who would benefit from online peer support. Previous research regarding active duty military spouses with children with ASD has suggested this population experiences several challenges related to relocation, requiring more targeted supports (Davis & Finke, 2015a; 2015b; Davis et al., 2016a). However, this research has been limited to military spouses with children with ASD. A survey for active duty military spouses found military spouses with children with special needs reported lower network support than those with children without special needs (Farrell, Bowen, Swick, 2014). Families and children with
other disabilities have higher stress than those with children who are typically developing (Morris, 2014) and may need specific supports. Some childhood disabilities or illnesses are medically complex and require multiple specialists or doctors (Murphy & Carbone, 2011). Internet-based peer supports for parents of children with illnesses or disabilities have reported positive outcomes such as increased social support and receiving information or ideas (Wynter, Hammarberg, Sartone, Cann, & Fisher, 2014). An online peer mentoring program similar to the one used in this dissertation may be beneficial to military families with children with other special needs as well. Future research should investigate the experiences of military spouses with children with other special needs and determine the content that may be appropriate to include in a peer mentor training.

**Deployment**

Research has indicated military spouses with deployed service members are at risk for more stress (Flake, Davis, & Johnson, 2009). Although there are currently some programs available for military families to improve resilience prior to deployment (e.g., Lester et al., 2016), it is likely there are additional factors affecting military families with children with special needs. Previous studies of military spouses with children with ASD have suggested challenges related to less perceived support, an increase in behavior and emotional distress in the child with ASD, and an increase in stress for the family during times of deployment and separation from their service member (Davis & Finke, 2015a). When service members are deployed or go on extended trainings, the military spouse becomes a single parent, taking on all of the therapy and household responsibilities. Single parents of children with ASD report more challenges and difficulties than those who are married or have a partner (Bromly et al., 2004). Even after the service member
returns, there are shifts in the family schedule that require adaptation. Peer supports may be helpful for military spouses with children with ASD during times of deployment as well as PCS. Future research should investigate the information these families may need or want before, during, and after deployments to inform training module development.

Male Spouses

Male spouses in the military are less common than female spouses, making up just 7.5% of the total number of spouses in the DoD (DoD, 2014). However, that percentage is likely to rise after recent policy changes embracing women in combat and noncombat positions in the military (Pellerin, 2015). As a minority in a traditionally female position, male military spouses may have even fewer supports than their female counterparts. Little research has been conducted about the male spouse experience, especially with children with disabilities. All of the participants in the training study (Chapter 3) and the mentorship study (Chapter 4) were female (N = 29 and N = 12, respectively) as were interviews describing the military spouse experiences of raising a child with ASD in the military (Davis & Finke, 2015a; Freuler & Baranek, 2016). Further, surveys of military spouses with children with disabilities, including ASD, were also all or mostly female (Farrell et al., 2014; Davis et al., 2016a). Each of these studies suggested female military spouses with children with disabilities perceive a lack of support. Similarly, most research of online peer supports has focused on mothers. In a review of online peer supports for parents, mothers made up 74% of the participants (Niela-Vilen et al., 2014). However, studies including males suggested fathers also reported a lack of support and found peer mentors to be beneficial (Stock & Rumsey, 2015).
While peer mentors may provide needed support to fathers, some evidence suggests men communicate differently than women in peer support. For example, fathers reported seeking informational support above all other support; whereas, mothers reported an emphasis on seeking emotional support (Neila-Vilen et al., 2014). Males also seem to communicate in different ways, especially through electronic communication modes. Smith-Jentsch et al., (2008) reported male mentors using electronic chat to mentor shortened their sentences and provided less psychosocial support, resulting in lower post-mentoring self-efficacy for the peer. Therefore, male military spouses may have different parenting experiences, prioritize other types of support, and require alternative communication strategies for electronic communication than female military spouses. Future research should describe the experiences of male military spouses with a child with ASD and design peer supports reflecting the needs and skills of the spouse.

*National Guard/Reserves*

Training units could also be added to the peer training to include specialized information for National Guard and Reservist populations. The Reserve and National Guard make up approximately 45% of the United States Armed Forces (DoD, 2014) and have characteristics that are different from active duty military members (Hall, 2008). For example, coverage by Tricare is fluid based on their active status and may only apply to the service member rather than the family (Murphy & Fairbank, 2013). Switching between Tricare and their civilian insurance company may require the spouse or family member at home to complete several new forms, alert providers, and possibly be denied services until all paperwork gets approved, causing gaps in services for the child with ASD. National Guard and Reservist families generally live farther away from military
installations than active duty families and may not be able to utilize the supports provided on base (Murphy & Fairbank, 2013). The differences between the Reserve and National Guard members and active duty members may be enough to warrant specific supports for that population; however, very little is known about Reserve or National Guard families with children with disabilities. Future research should describe the experiences of National Guard and Reserve families with children with ASD and develop relevant supports, if needed.

**Applications to Civilian Populations**

There are several parent-to-parent groups available for civilians. Niela-Vilen et al., (2014) indicated 38 articles met their criteria for a systematic review of internet-based parent groups. Although these groups were beneficial for the parents involved, they were not specific enough to needs of families in both the military and a child with ASD. Further, even in a military specific peer support program, some military spouses with children with ASD suggested additional matching criteria to improve similarities between peers and peer partners. Similarly, parent-to-parent groups may not be sufficient for other subgroups of civilians. For example, families of professional athletes, especially those in the minor leagues, may move every year or even multiple times per year (Gmelch & San Antonio, 2001). Baseball families may relocate to the team’s spring training location, regular season location, and to a hometown in the off season (Gmelch & San Antonio, 2001). Moves may also come without any warning and at any time when a team trades a player (Gmelch & San Antonio, 2001). The baseball spouse is often the one who must prepare the household for moving, choose housing and schools, and re-establish community relationships with doctors or others (Gmelch & San Antonio, 2001).
Baseball spouses, similar to military spouses, have reported social isolation and lack of social support after relocations (Ortiz, 2004). Also like military spouses, baseball spouses must cope with their spouse being gone many months of the year (Gmelch & San Antonio, 2001; Ortiz, 2004). There are some sport-specific networks for wives of professional sports players such as Our Baseball Life (Block, 2015), but these may not be specific enough to support those professional sports families with children with disabilities. Other frequent movers may be families of migrants (Cranston-Gringras & Paul, 2009), miners (Allan, 2011), diplomats (Grappo, 2008), and business expatriates (Clegg, 2013) who must navigate a new area with new community systems on their own. Due to their membership in a mobile profession, these families with children with disabilities may be at risk for low social support. Future research should investigate the necessity of additional supports for these groups.

Conclusion

The studies in this dissertation provided evidence for the feasibility of the Military Spouse Online Autism Relocation Readiness (MilSOARR) training and mentorship program. While peer support does not solve every problem these military families encounter, it may help resolve support issues and reduce burdens on resources such as the EFMP personnel. Although these studies have methodological weaknesses that should be addressed in future research, there are several benefits to consider. First, the training and mentorship programs were simple to implement and able to be integrated on a larger scale. Specifically, the training was provided online, allowing multiple spouses to complete it at once. The training was also relatively short, lasting only 1-2 hours, and was able to be completed when the spouse had time. Although the training included a pre-test
and post-test graded by the researcher, these could be adapted to automatic grading through an online program instead. The mentorship was fairly self-sufficient with dyads communicating with each other through e-mail for six weeks. I did intervene on occasion to remind participants to use the e-mail group; however, these messages could be automated or the program altered to incorporate more flexibility in the duration, frequency, and mode of communication. Second, the training and mentorship programs were effective in achieving their goals. The online training successfully taught peer partners program protocols and communication strategies that transferred over to the mentorship program. The mentorship program helped most military spouses reduce PCS stress and increase PCS attitude, self-efficacy, and resilience. Third, the training and mentorship programs were valued by participants. Peer partners in the training program and peers in the mentorship program were satisfied with their experiences and recommended the both programs to others. Finally, peer partners and peers commented on the actualized and/or potential benefits of this program as a support for military families with children with ASD. Despite methodological shortcomings, the positive results from these studies support the need for further research.
Appendix A

Operational Definitions of Data Extraction Categories

1. Author, year
   a. Last name of the first author, last name of second author. Year published.
   b. If more than 2 authors: last name of first author, et al., year published.
   c. E.g., Dennis, 2003; Dennis et al., 2009

2. Design
   a. Research design of the study as stated by authors. Highlight design.
      1. Group: randomized or nonrandomized, pre/post-test, time series
      2. Qualitative: survey, questionnaire, interview
      3. Single subject: multiple baseline/probe, alternative treatment, withdrawal

3. Independent Variable
   a. Brief description of the intervention. Highlight the most appropriate based on the author’s description.
      1. Distance peer mentoring program
      2. Training for distance peer mentor

4. Dependent Variable
   a. Primary dependent variable as stated by the authors
b. E.g., depressive symptoms, adherence to medication

5. Peer mentor demographics
   a. Information about the gender and number of peer mentors who received the training and/or provided mentorship
   b. Number should reflect those who completed the training and those who were matched, if different numbers are reported
   c. Gender (# training, # matched)

6. Peer demographics
   a. Information about the gender and number of peers who received mentorship from the peer mentors (if provided)
   b. Number should reflect those who were matched and returned data collection information, if applicable
   c. Record information for intervention and control groups separately
   d. Gender (# matched, # returned data/analyzed by authors)
   e. E.g., Intervention group: F(20, 17)

7. Training mode
   a. How the training was delivered to the peer mentors. Highlight all mentioned by the authors.
      b. In person
      c. Reading material/manual
      d. Telephone
      e. Online
f. Not specified

g. Other:

8. Training time
   a. How much time the training required to complete as recorded by the authors
   b. Could be listed as hours, minutes, or sessions based on the information from the researcher

9. Training content
   a. What content the training included as described by the authors. List all mentioned.
   b. E.g., telephone support skills, general information on postpartum depression

10. Training Instruction
    a. Methods used to teach the peer mentors the training content.
    b. E.g., role playing, problem solving
# Appendix B

**Operational Definitions of Training Content and Training Instruction**

<table>
<thead>
<tr>
<th>Content Category</th>
<th>Operational Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Support</td>
<td>Any content related to the explanation of peer support such as peer support definitions, roles, benefits, characteristics</td>
<td>“definition of peer support” “what mentoring is” “be accepting”</td>
</tr>
<tr>
<td>Support Skills</td>
<td>Any content related to helping the mentor provide emotional support (e.g., listening, asking questions), affirmational support (e.g., empathy, acknowledging feelings), and informational support (e.g., self-disclosure, sharing experiences).</td>
<td>“active listening skills” “asking open ended questions”</td>
</tr>
<tr>
<td>Special Topic Information</td>
<td>Any content related to specific information relevant to the shared characteristic or experience</td>
<td>“general breast feeding principles”</td>
</tr>
<tr>
<td>Category</td>
<td>Content Description</td>
<td>Keywords</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mode Specific</td>
<td>Any content related to explanation of skills, techniques, or logistical support through a specific mode of communication</td>
<td>“telephone support skills”, “logistics of telephone support”</td>
</tr>
<tr>
<td>Confidentiality</td>
<td>Any content related to ethical issues such as confidentiality, participant safety and risk, referral skills</td>
<td>“danger signals”, “personal boundary issues”</td>
</tr>
<tr>
<td>Instruction</td>
<td>Any content related to techniques used to teach peer mentoring content</td>
<td>“case studies”, “reflection”</td>
</tr>
</tbody>
</table>
Appendix C

Examples of Training Content Used in MilSOARR Training Program

<table>
<thead>
<tr>
<th>Content Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Support</td>
<td>“Peer mentoring is a type of mentoring where the peer partner with more experience on a specific event (you) provides support to a less experienced peer currently experiencing that event (your peer).”</td>
</tr>
<tr>
<td>Support Skills</td>
<td>Paraphrasing as part of emotional support (“Care”)</td>
</tr>
<tr>
<td>Special Topic</td>
<td>“Previous research has found military families with children with autism report several negative effects after a PCS. Here are some related to therapies and intervention…”</td>
</tr>
<tr>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>Mode Specific</td>
<td>“What if my peer has not responded to my e-mail?”</td>
</tr>
<tr>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>Confidentiality</td>
<td>“Do not share any personal information about your peer with anyone (other than the researcher).”</td>
</tr>
</tbody>
</table>
Appendix D

Example of Strategy Instruction to Teach a Support Skill from the CAS Framework

The following is an example of how steps in strategy instruction (Ellis et al., 1999) were used to teach support skills from the researcher developed CAS framework.

1. Describe

**Paraphrasing**

What is paraphrasing?

Summarize what your peer has communicated.

2. Model

**Paraphrasing Example**

"Where do you even find information about where therapies are and who takes TriCare? I don't know where to begin!"

Peer
3. Guided Practice

Which choice includes a ‘paraphrase’ response to the peer comment?

Peer: “I hope I don't have to fight the school. I'm so sick of fighting for services. At this school, it's like, ‘You have on my IEP what my child needs. Why are you trying to take it from him?’ So, I'm worried about that when we move.”

- What methods did you use to get services before?
- It sounds like you’ve had some trouble with the school in the past and are worried about the same thing happening at your next school.
- I know what you mean! I know many families with a child with autism who struggle to get services with the school.
- One resource I have used to help me is Autism Speaks. They have a section that covers special education law that is really helpful.
4. **Independent Practice**

Respond to the following peer comment including a ‘paraphrase’ from the “C” - Care part of the CAS Framework.

Peer: “I’m worried what will happen to my child with autism when we move. Will he adjust? Will he make friends? We have never had to do this before and don’t know what to expect.”

Type your text here

---

**Paraphrasing Activity 2 Sample Answer**

“What I’m hearing is that you are worried how your child with autism will react when you move since this is his first time. Is that right?”

Peer Partner
Appendix E
Assessment Form A

1. As a peer partner, please type your response to the following peer comment using all three parts of the CAS Framework.

   Peer: “When my son turned three, we weren’t in a rush to get an official label. We found out our family was getting orders soon and we had to hurry up and put in a dream sheet as to what bases we wanted to go to. We got the diagnosis in time to sign him up for EFMP, but now we are moving in a month and I have no idea where to start. We had services at our current location, but just through early intervention since he didn’t have a diagnosis.”

   Type your response here:

2. What CAS Framework strategy did the peer partner use in the following example?

   Peer: "I'm worried what will happen to my child with autism when we move. Will he adjust? Will he make friends? We have never had to do this before and don't know what to expect."

   Peer partner: "Sometimes it can be a struggle. My son had difficulties adjusting to his new home and school at first. He even regressed in some of his skills a little because of the change and delays in services. It didn't take long before we developed a new, stable routine and he settled in though."

   - C
   - A
   - S
   - Multiple

3. Previous research has found military families with children with autism report several negative effects after a PCS. Which of the following is a negative effect of PCSing related to the family?

   - Delays in starting therapy
   - Reduced therapy quality
   - Difficulty adjusting to new location
   - Decreased organized support
4. Which of the following is NOT true? According to the training, peer partners...

○ offer guidance to their peer.
○ have all the answers for their peer.
○ provide encouragement to their peer.
○ understand what their peer is experiencing.

5. What CAS Framework strategy did the peer partner use in the following example?

Peer: "In my son's class is a girl named Grace. She is a year older and she takes care of him. She plays with him. They're friends. Her brother is in the Army, so they have that commonality too. This is the first time my son had a friend. I don't want to pull him away from that."

Peer partner: "It's sad for me too when we have to pull our daughter with autism aware from a friend she has made. It's hard to see them upset. On the flipside, it's a nice opportunity to talk about and practice how to make new friends."

○ C
○ A
○ S
○ Multiple

6. There are 3 goals associated with the Military Spouse Online Autism Relocation Readiness (MilSOARR) Program. What is the goal of Part 1?

○ Educate military spouses with a child with autism on how to mentor their children during a PCS
○ Help military spouses with a child with autism who haven't moved yet to have a better PCS experience
○ Help military spouses with a child with autism who have moved to have a better PCS experience
○ Educate military spouses with a child with autism and PCS experience how to be a mentor

7. Which of the following peer partner responses is a "Share" type response from the CAS Framework?

Peer: "Where do you even find information about where therapies are and who takes Tricare? I don't even know where to begin!"

○ Peer partner: "It sounds like you are concerned about finding therapies after you PCS. How did you find your current therapies?"
Peer partner: "I know what you mean. The Tricare system can be really difficult to manage! My other military spouse friends and I comment about that all the time."

Peer partner: "I typically use a combination of approaches to find therapies, including Google and word-of-mouth."

Peer partner: "Finding therapies can be difficult, but you get better at it as you go. You'll develop your own strategies after a move or two."

8. What CAS Framework strategy did the peer partner use the following example?

Peer: "I've heard that sometimes families can qualify for respite care, but that it's difficult to get. It seems like it would be helpful, especially when we move away from our family, but I don't know if we will be able to get it."

Peer partner: "What I'm hearing is that you would be interested in getting respite care, but aren't sure if you would qualify. Is that right? What do you know about getting respite care from Tricare?"

9. According to the responsibilities outlined, as part of the MilSOARR program you should NOT...

- use email and instant messenger to communicate with your peer
- refer your peer to professional services
- maintain confidentiality about your peer's information
- communicate electronically with your peer at least 2 times per week

10. If you and your peer aren't 'clicking,' what should you do?

- Ask your peer if they think it is a good fit
- Contact the researcher about not being a good fit
- Stop responding to your peer
- Continue trying to support your peer

11. What is the purpose of the suggested topic areas?

- To ask your peer if they have thought about that situation
- To use if you are not sure what to talk about
- To address each one individually with your peer
- To think about prior to contacting your peer

12. What score must you earn on your final quiz to pass the training?
13. What CAS Framework strategy did the peer partner use in the following example?

Peer: "I have heard people aren't very impressed with the EFMP process. They said it was really limited and they didn't offer any seminars or anything."

Peer partner: "It sounds like you have heard some negative things about EFMP. Have you talked with a case manager yet?"

A C
A A
C S
C Multiple

14. Which of the following is a benefit of the MilSOARR Program for the peer?

C Communication skills
C Leadership
C Giving back
C Confirmation

15. Which of the following peer partner responses is an "Aware" type response from the CAS Framework?

Peer: "We have been really happy with how our son has been progressing in therapy. What if our next location has a bad therapist? Or doesn't have an art class like the one my son goes to? Or even an occupational therapist?"

Peer partner: "One resource I have used to help me find good therapists is asking other military families. They have been so helpful."

Peer partner: "It sounds like you are worried the next place you move to won't have the services you want for your child with autism."

Peer partner: "I've been there! We loved our old therapist too, but you will find another one when you move. It may take time, but they are out there!"

Peer partner: "I had the same experience with my son too. We had to discontinue his Special Olympics basketball, but we started Boy Scouts when we moved."
16. What should you do if there is a situation that makes you feel uncomfortable?

Type your response here:

17. Which of the following is a reason to break confidentiality?

☐ Your peer states she has stopped eating
☐ Your peer expresses feeling stressed
☐ Your peer comments on feeling sleepy
☐ Your peer mentions being frustrated with their EFMP case manager

18. What is one benefit for your peer of receiving "Share" support?

☐ Share support helps your peer open up to you
☐ Share support helps your peer communicate with their spouse
☐ Share support increases your peer's self-confidence
☐ Share support increases your peer's ability to solve problems
Appendix F

Assessment Form B

1. As a peer partner, please type your response to the following peer comment using all three parts of the CAS Framework.

   Peer: “When my son turned three, we weren’t in a rush to get an official label. We found out our family was getting orders soon and we had to hurry up and put in a dream sheet as to what bases we wanted to go to. We got the diagnosis in time to sign him up for EFMP, but now we are moving in a month and I have no idea where to start. We had services at our current location, but just through early intervention since he didn’t have a diagnosis.”

   Type your response here:

2. What is one benefit for your peer of receiving "Care" support?

   - Care support helps your peer open up to you
   - Care support helps your peer communicate with their spouse
   - Care support increases your peer's self-confidence
   - Care support increases your peer's ability to solve problems

3. What CAS Framework strategy did the peer partner use in the following example?

   Peer: "Mondays are always bad here. It's like transitioning from the weekend to the weekday. So you get a huge move and the schedule suffers more than usual. My child with autism will not focus. He will probably have a meltdown or that kind of thing."

   Peer partner: "What I hear you saying is that you feel like your son will have difficulty transitioning to the new installation. Is that right?"

   - C
   - A
   - S
   - Multiple

4. When you are assigned a peer, you will be given a list of topics...

   - generated by previous research.
   - based on common experiences.
   - your peer is concerned about.
   - the other peer partners listed as concerns.
5. There are 3 goals associated with the Military Spouse Online Autism Relocation Readiness (MilSOARR) Program. What is the goal of Part 2?

- Educate military spouses with a child with autism on how to mentor their children during a PCS
- Help military spouses with a child with autism who haven't moved yet to have a better PCS experience
- Help military spouses with a child with autism who have moved to have a better PCS experience
- Educate military spouses with a child with autism and PCS experience how to be a mentor

6. Which of the following is a benefit of the MilSOARR Program for the peer partner?

- Acceptance
- Self-Esteem
- Self-Confidence
- Comfort

7. Which of the following statements made by a peer represents receiving "Aware" support from the peer partner?

- "My peer partner cares about what I am going through and is there for me."
- "Other people have experienced what I am going through and figured out what to do. I can too."
- "That's what my peer partner did. Maybe I can do something like that in my situation."
- "My peer partner is nice and tells me about her favorite books."

8. What CAS Framework strategy did the peer partner use in the following example?

Peer: "I can't believe how many things there are to do after you PCS! It's so overwhelming!"

Peer partner: "It can definitely be overwhelming, but you have the motivation to do all you can to help your child succeed. You'll be able to figure it out. If you feel stuck, you can always email me and I will help if I can."

- C
- A
- S
- Multiple
9. How many times should you communicate with your peer per week?

☐ At least one
☐ At least two
☐ At least three
☐ At least four

10. If your peer hasn’t responded in 4 days, what should you do?

☐ Nothing - wait until the researcher emails you and your peer
☐ Nothing - wait 5 days before emailing your peer again
☐ Email your peer - after 4 days of no response, email your peer again
☐ Email the researcher - after 4 days of no response, email the researcher

11. What CAS Framework strategy did the peer partner use in the following example?

Peer: "I feel so lost! I know I need to find new providers as soon as possible, but I have no clue how to do it. It seems like the information is so hard to find!"

Peer partner: "Well, when I first started looking, I felt like I was running myself in circles going to his pediatrician trying to get a referral. Then to a psychologist. Then back again. Finally, I called Tricare and they said, "No, no. All you need to do is contact one of these three companies." And they gave me three company names out here."

☐ C
☐ A
☐ S
☐ Multiple

12. Previous research has found military families with children with autism report several negative effects after a PCS. Which of the following is a negative effect of PCSing related to child with autism?

☐ Difficulty building rapport
☐ Delays in starting therapy
☐ Lack of IEP continuity
☐ Difficulty making friends

13. What happens if you do not earn a passing score?

☐ You are assigned practice modules before you may be assigned a peer
☐ You must retake the training before you may be assigned a peer
☐ You must retake the quiz before you may be assigned a peer
☐ You are assigned practice modules before you retake the quiz
14. What CAS Framework strategy did the peer partner use in the following example?

Peer: "I just wish I knew other families like us!"

Peer partner: "Have you heard of AMFAS? It's the American Military Family Autism Support group. They have lots of members on Facebook that post about military and autism related stuff. There's also some local installation groups. Here's their website: www.amfas.org."

- C
- A
- S
- Multiple

15. Which of the following peer partner responses is an "Aware" type response from the CAS Framework?

Peer: "This will be our first move as a family with my son who has autism. Our previous two PCSs were difficult and put stress on everybody as we packed, moved, and unpacked. I imagine this next move will be even more stressful for us."

- Peer partner: "It's understandable that you are worried about moving. Moving is a big change for everyone. How did you and your family deal with previous moves?"

- Peer partner: "To help you keep stress levels down for the family, I usually introduce the new installation to the kids to prepare them for changes. For example, when we moved from the Midwest to the West Coast, we talked about the differences in weather and outside activities."

- Peer partner: "Even though my family and I have moved several times, it is still stressful, but in different ways. Other military spouses have told me the same thing. Yes, packing/unpacking is still work, but you figure out a system as you go. You will learn to be efficient with practice."

- Peer partner: "Before their first couple of moves, my friends used the Military One Source website to help them plan the move and read tips for how to help their children transition. They all said it was helpful."
16. Which of the following is a NOT reason to break confidentiality?

☑ Your peer comments she has had emotional outbursts
☑ Your peer mentions she has felt stressed
☑ Your peer states she has stopped sleeping
☑ Your peer says she has stopped eating

17. What should you do if there is a situation that makes you feel uncomfortable?

Type your response here:

18. Which of the following peer partner responses is a "Care" type response from the CAS Framework?

Peer: "One of my friends said the EFMP case managers are really hard to get a hold of. She didn't even know how to figure out who she was assigned to."

☑ Peer partner: "The first time I moved, I had a lot of trouble too. I started by going to the EFMP office on the base and asking them questions. They gave me the contact information for the case manager."

☑ Peer partner: "My friends and I have had some similar experiences, so you are not alone in your concern. The good thing is that with a couple of moves, you have a better idea of what works best to find them."

☑ Peer partner: "When I need to find who my EFMP case manager is, I typically ask other military spouses on AMFAS. Usually someone in the group has been located in my area or at least close enough to share managers."

☑ Peer partner: "What I'm hearing is that you are concerned about how to find your case manager, is that correct? Have you had contact with your current case manager?"
Appendix G

Operational Definitions of the CAS Framework Case Study Coding

- **C** – care: Score as 1 if the response includes at least one of the following:
  - Paraphrase – a brief summary (sentence, phrase) of what the peer has communicated
    - May start with the phrases: It sounds like…, What I hear you saying is…, It seems like…
  - Asking open ended questions – questions that require more than a yes/no response to answer
    - Questions that start with how, what, who, when
    - e.g., How did you find your current therapist?

- **A** – aware: Score as 1 if the response includes at least one of the following:
  - Aware of others – validation of feelings, difficulties, frustrations; letting the peer know they or someone they know has ‘been there’ too
    - They understand the peer’s feelings and/or know someone who has had a similar experience
    - E.g., I understand what you are going through. I experienced the same thing in a group. It’s hard to feel supported when others don’t get it
  - Aware of self – point out what that their peer has the ability to succeed
    - Remind peer of: previous success or if they are on the right track, support systems, resources, skills/personality traits they possess, you as a resource
- E.g., It can take some practice, but over time it gets easier. You’ll be able to keep everything organized. I’m here to help if you need ideas.
- E.g., You are on the right track!

- S – share: Score as 1 if the response includes at least one of the following:
  - Share experiences – tell their story to their peer
    - Experiences could be what they did, tips they learned, what helped/did not help
    - E.g., It can be frustrating. One year, we didn’t find out we were moving until 4 weeks before our moving date. It took some adjusting for everybody, but we eventually settled into a routine.
  - Share resources – tell their peer about a resource; names a specific resource
    - Consider resources for military, autism, and military/autism questions
    - Provide a set of instructions/suggestions
    - E.g., I know it’s difficult, but there are some resources out there to help military families PCS. They don’t necessarily take away all of the challenge, but they can be helpful. I’ll send you a list.
    - E.g., Talk to the EFMP office.
Appendix H

Demographic Form for Peer Partners

Please answer the following questions about yourself.

What is your age? _____

What is your gender?
☐ Male
☐ Female

What is the highest level of education you have completed?
☐ Elementary School
☐ High School
☐ 2-year College (Associate's Degree)
☐ 4-year College (Bachelor's Degree)
☐ Graduate Studies (Master's Degree)
☐ Post-Graduate Studies (Doctorate)

What is your ethnicity?
☐ Hispanic or Latino
☐ Not Hispanic or Latino

What is your racial background? Mark all that apply.
☐ African American or Black
☐ American Indian/Alaska Native
☐ Asian
☐ Caucasian or White
☐ Native Hawaiian or Other Pacific Islander

What is your employment status?
☐ Employed full time
☐ Employed part time
☐ Stay at home parent/caregiver
☐ Unemployed
☐ Other: ____________________
Please answer the following questions about the active duty service member in your family.

What is the status of the service member in your family?
☒ Currently active duty
☒ Recently (within the last year) retired
☒ Other ____________________

What Service is/was your family member in (e.g., Army)? ___

How many years has/did he/she served active duty? ____

What is/was his/her current rank? ____

Please answer the following questions about your family.

What is your family income?
☒ Less than $10,000
☒ $10,000 - $14,999
☒ $15,000 - $24,999
☒ $25,000 - $34,999
☒ $35,000 - $49,999
☒ $50,000 - $74,999
☒ $75,000 - $99,999
☒ $100,000 - $149,999
☒ $150,000 - $199,999
☒ $200,000 +

What state (or country if outside of the US) does your family live in? ____

What military installation is your family currently stationed at/near? _____

How long has your family been at your current location?
☒ 0-1 years
☒ 1-2 years
☒ 2-3 years
☒ 3-4 years
☒ 4-5 years
☒ 5+ years

What installations has your family been stationed at since the BIRTH of your oldest child with ASD?
   Installation:_____
   Installation:_____
   Installation:_____

Installation: _____
Installation: _____

How many times has your family PCS'd since your oldest child with ASD was diagnosed with ASD? _____

How many children do you have? _____

How many of your children are affected by...
  Autism Spectrum Disorder (ASD): _____
  Disability other than ASD: _____

Please answer the following questions about your oldest child with ASD.

What is the gender of your oldest child with ASD?
  o Male
  o Female

What is the age of your oldest child with ASD? _____

What is the ethnicity of your oldest child with ASD?
  o Hispanic/Latino
  o Not Hispanic/Latino

What is the racial background of your oldest child with ASD? Mark all that apply.
  □ African American or Black
  □ American Indian/Alaska Native
  □ Asian
  □ Caucasian or White
  □ Native Hawaiian or Other Pacific Islander

What is the specific ASD diagnosis of your oldest child with ASD?
  o Autistic Disorder
  o Asperger's Syndrome
  o Childhood Disintegrative Disorder
  o Pervasive Developmental Disorder - Not Otherwise Specified
  o Rett's Disorder

What year was your oldest child with ASD diagnosed with autism? _______

Does your oldest child with ASD have any additional diagnoses (e.g., ADHD)? If yes, what are the additional diagnoses? _______

How many times has your family PCS'd since your oldest child with ASD’s diagnosis?
How would you classify your oldest child with ASD's autism characteristics?
- Mild
- Moderate
- Severe

Please indicate to what extent your child is affected by the following symptoms. Mark the corresponding category with an “X.”

<table>
<thead>
<tr>
<th></th>
<th>Not Affected</th>
<th>Mildly Affected</th>
<th>Moderately Affected</th>
<th>Severely Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language/Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restricted/Repetitive Interests and/or Behaviors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix I

Peer Partner Training Satisfaction Questionnaire

Do you feel the training prepared you to be a better mentor?
☑ Yes
☑ No

What is your level of satisfaction with the following sections of the training? Mark the corresponding category with an “X.”

<table>
<thead>
<tr>
<th>Section</th>
<th>Very Dissatisfied</th>
<th>Dissatisfied</th>
<th>Neutral</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Peer Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Troubleshooting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information about PCSing with a child with ASD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidentiality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support skills (CAS Framework)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

List 3 things you liked best about the training.

List 3 things you would recommend changing about the training.

Would you recommend military spouses who want to be peer partners complete this training?
☑ Yes
☑ Yes with modifications to the training
☑ No
Appendix J

Assumptions of Welch T-Test

Table 1: Shapiro-Wilk Test for Pre-Post Test Residuals

<table>
<thead>
<tr>
<th></th>
<th>Shapiro-Wilk</th>
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<tbody>
<tr>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td>Pre-Post</td>
<td>.934</td>
</tr>
</tbody>
</table>

Figure 1: Normal Q-Q Plot of Residual for Pre-Post Test Residuals

Table 2: Homogeneity of Variance for Pre-Post Test

<table>
<thead>
<tr>
<th></th>
<th>Lavene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Post Test</td>
<td>.235</td>
<td>1</td>
<td>27</td>
<td>.632</td>
</tr>
</tbody>
</table>
Appendix K

Operational Definitions of Peer Partner Likes and Recommendations

Peer Partner Likes

Helping families/giving back

- Any comment related to helping other families, being a mentor, or giving back. This includes but is not limited to: liking there is a program to help military families, helping someone have a better experience, being a mentor to someone.

CAS

- Any comment related to the “CAS” framework or communication skills/techniques/strategies for providing support to the peer. This includes but is not limited to: the communication strategy being clear, learning the CAS framework, learning communication skills, etc.

- Does not include general comments about examples or types of questions/activities in the training such as open ended questions.

Convenience: computer, online, own pace, from home

- Any comment about the ease/convenience of participating in the training. This includes but is not limited to: the training being computer based, online, able to be done from home.

Examples

- Any comment related to the examples or types of questions/activities used in the training. This includes but is not limited to: the examples or training being easy to understand, using open ended questions, example dialogues.
• Does not include specific information about the CAS framework or communication strategies.

Program Design

• Any comment about the design of the training program in general. This includes but is not limited to: navigation, clarity, personal modules.

Other: researcher, resources, deadline

• Any comment that does not fit into the other categories. This includes but is not limited to: comments about the researcher, comments about resources, comments about deadlines.

Peer Partner Recommendations

Technology Problems

• Any comment about technology problems related to the training or program. This includes but is not limited to: correct answers marked incorrect, program freezing, buttons not working properly.

Design – look/feel

• Any comment about the look, feel and usability of the training and program. This includes but is not limited to: adding directions, slide timing/next button, breaking the training into smaller pieces, adding multimedia.

• Does not include adding, removing, or changing the content/topics of the training such as adding more resources or information about the CAS framework.

Content – wording, information
• Any comment about adding, removing, or changing the content/topics of the training. This includes but is not limited to: adding more resources, adding more explanations of content, adding or deleting modules/content.
Appendix L

Operational Definitions of Peer Challenges, Benefits, and Recommendations

Peer Challenges

Maintaining Conversation

- Any comment related to maintaining communication with their peer partner. This includes but is not limited to: finding time during the day to e-mail, responding quickly, being too busy.

Different Characteristics

- Any comment related to different characteristics between them and their peer partner. This includes but is not limited to: different child characteristics, located at different installations/bases, affiliated with different Services.

Peer Benefits

Community

- Any comment related to feeling a sense of community or support. This includes but is not limited to: support systems, friendship, connection/assurance, contact with a similar person.

Resources

- Any comment related to receiving information or resources. This includes but is not limited to: Tricare, EFMP, ABA, information about services, general knowledge.
Peer Suggestions

Communication Mode

- Any comment related to changing the communication mode. This includes but is not limited to: texting, chat groups, in-person.

Time

- Any comment related to changing the time duration of the program. This includes but is not limited to: increasing the duration, decreasing the duration, changing the number of required emails per week.

Match

- Any comment related to matching peers and peer partners on specific characteristics. This includes but is not limited to: Service/branch, installation, the child with ASD severity or age.
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Three publications in peer-reviewed journals: Davis & Finke, 2015; Davis, Finke, & Hickerson (2016); Finke, Davis, Benedict, Goga, Kelly, Palumbo, Peart, Waters (in press).

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