Stressful Experiences, Coping Strategies, and Predictors of Health-related Outcomes among Wives of Deployed Military Servicemen

Erin E. Dimiceli¹, Mary A. Steinhardt¹, and Shanna E. Smith¹

Abstract
A survey of military wives (N = 77) identifies their most stressful experiences, self-appraised control over these stressors, and coping strategies used. The authors examine two competing hypotheses: the goodness-of-fit hypothesis that the effects of problem-focused coping (PFC) and emotion-focused coping (EFC) strategies on distress are moderated by the appraised controllability of the stressor, and the main-effects hypothesis that PFC strategies are more effective than EFC strategies in reducing distress regardless of appraisal of controllability. Wives identified deployment of soldiers as their most stressful experience, and reported using PFC strategies more frequently than EFC strategies. EFC strategies were predictive of greater physical symptoms of illness, while PFC strategies were related to reduced physical symptoms of illness only when military wives’ perceived control of the situation was low. PFC strategies and controllability were significantly related to decreased depressive symptoms; EFC was marginally related to increased depressive symptoms, lending greater support to the main-effects hypothesis.

Keywords
military spouses, stress, coping strategies, depressive symptoms, physical symptoms

Over the past several decades, researchers have examined coping strategies used to deal with stressful situations.¹ However, none have studied the coping strategies used

¹University of Texas at Austin
by wives of military servicemen since the Vietnam War. A large portion of the United States population is affected by life in the military; currently, there are 1.4 million active duty servicemen, with over 230,000 in deployment. Furthermore, 55 percent of the men and women serving in the military are married, and 46 percent have children. When married soldiers (especially those with children) are deployed, their spouses are left at home to cope with the many challenges of life alone.

Because spouses of military personnel are exposed to unique stressors on a daily basis, examining the stressful experiences of military wives and the coping strategies used to deal with these experiences is paramount. Furthermore, understanding the relationship of such coping strategies to health-related outcomes would give insight into this unique population as well as foster interventions to improve the quality of life for these women. Therefore, this study sought to answer the following research questions:

1. What are the stressful situations experienced by wives of deployed military servicemen?
2. What coping strategies do military wives use to deal with these stressful situations?
3. What is the relationship between the coping strategies used by military wives, the moderating effect of controllability of the stressful situation, and physical and mental health outcomes?

When exposed to a stressful event (such as deployment), individuals activate coping strategies to deal with the stressor. Two broad types of coping are repeatedly found in the literature: approach or problem-focused coping (PFC) and avoidant or emotion-focused coping (EFC). PFC strategies involve actively doing something to resolve the situation or alter the source of the stress. Common examples include taking action to solve or address the situation, planning, acceptance, and seeking social support. EFC strategies, on the other hand, attempt to reduce the emotional distress caused by the stressor. Examples include venting, avoidance, distancing, and self-blame. Individuals commonly use venting (or releasing strong feelings about a stressful situation) to help regulate their emotions. Avoidance can include denial, substance abuse, exercise, or engagement in other activities that prevent the individual from dealing directly with the stressful situation. EFC has been viewed as disruptive to rational decision making, whereas PFC often results in feelings of empowerment that help individuals grow and discover new things about themselves and others. Although most stressors elicit both PFC and EFC strategies, PFC tends to predominate if an individual feels something constructive can be done, whereas EFC predominates if the stressor is perceived as something that must be endured.

In examining the relationship between coping strategies and health outcomes, early researchers implicitly employed a main-effects hypothesis, which posits that PFC strategies are consistently superior to EFC strategies in promoting adjustment. More
recent research, however, suggests that neither of these strategies is inherently adaptive or maladaptive; rather, the effectiveness of an individual’s coping strategy depends on how closely the strategy matches the person’s appraisal of the situation.\textsuperscript{11} This \textit{goodness-of-fit hypothesis} presumes that PFC strategies decrease health symptoms when dealing with a controllable stressor, while EFC strategies decrease symptoms when dealing with an uncontrollable stressor.

\textbf{Stress Associated with Life in the Military}

Most families in the United States (military or otherwise) face challenges that cause stress, including work-related duties, household chores, financial difficulties, and child-related matters.\textsuperscript{12} Life in the military brings an additional set of challenges that add to these common stressors. Lengthy deployments are a way of life for this community. Military personnel and their families are often required to relocate,\textsuperscript{13} and these relocations commonly occur with little notice. The demands of the military, coupled with the stressors and events of everyday life, can cause a great deal of stress for spouses of military servicemen.\textsuperscript{14}

Length of deployment is an important factor in the perceived stress experienced by military wives. In one study, spouses generally felt equipped to cope with the stress brought on by deployment if the soldier’s expected absence was for a short period of time. However, more than half of spouses of military personnel felt they did not handle loneliness well if their husbands were gone for seventeen or more weeks.\textsuperscript{15} The changes experienced in their daily routines resulted in feelings of loneliness, anxiety, and depression for some women. Physical symptoms, such as headaches, menstrual irregularity, sleep disturbances, and change in body weight, also occur during periods of deployment.\textsuperscript{16} Furthermore, if the couple has children, the spouse left behind must assume the role of a single parent. What used to be a team effort becomes a one-person, full-time job.\textsuperscript{17} Thus, when the husband is deployed, the entire family experiences the absence as a major stressor.\textsuperscript{18}

In addition to deployment, the frequent and sometimes distant moves required of military families can be difficult for spouses to explain to their children, who are often uprooted with little notice.\textsuperscript{19} Although the military is attempting to reduce relocations, the average military family moves two to three times more than civilian families. The stress of moving is exacerbated if the soldier in the family is abruptly deployed.\textsuperscript{20}

Constant relocation, in addition to deployments, also deters military spouses from having a career. Given the duties associated with bearing complete responsibility for childcare, most civilian women of military families do not work outside the home if their husbands are deployed for long periods of time.\textsuperscript{21} While some women are content with caring for the family at home, others experience the lack of external employment as a major stressor.\textsuperscript{22} Regardless of employment status, many women whose husbands are absent for extended periods find themselves working twice as hard at home.\textsuperscript{23}
Coping with Military Stressors

When exposed to similar stressors, different individuals react in different ways. Some may have bouts of anxiety, depression, fear, and anger; for others, however, the negative impacts of stress often occur in conjunction with positive changes, such as achieving greater personal strength or having a greater appreciation of life. Military spouses’ adjustments to separation and reunion have important implications not only for the family’s well-being and the clinicians responsible for the treatment of families under stress but also for soldier retention: those who cope well with extended separations and reunions are more likely to support their spouses’ Army careers than those who cope less well.

Surprisingly, we found only one study that examined the coping strategies used by military spouses. McCubbin et al. studied the coping patterns of wives whose husbands were unaccounted for during the Vietnam conflict and found that coping strategies ranged from expressing personal feelings (particularly angry feelings) and seeking social support from others, to hopeful coping, religious coping, and behavioral and self-distraction. Wives beyond the childbearing years, who were also satisfied with their marriages and life in the military, tended to use approach or PFC strategies, whereas wives who reported little satisfaction in their marriage and greater tension and emotional strain were more likely to use avoidant or EFC strategies. The authors stated that further study is needed to determine whether the coping patterns discussed are related to physical and mental well-being.

Coping and Health-related Outcomes

Researchers examining the influence of stressor characteristics and coping strategies on health suggest that the controllability of the stressful situation may play a moderating role in the relationship between coping strategies and health outcomes: To create a “good fit” between control appraisal and coping, it may be best for an individual to use EFC strategies when dealing with an uncontrollable stressor but to use PFC strategies when dealing with a controllable stressor. Research examining the goodness-of-fit hypothesis has found equivocal results but, in general, suggests that PFC strategies are more adaptive than EFC strategies in situations appraised as controllable. Conversely, in the case of an uncontrollable stressor, EFC strategies may best reduce distress. For example, when a situation is overwhelming or uncontrollable, EFC strategies can be helpful because they temporarily reduce the threat and allow individuals to recharge by recognizing, processing, and expressing their emotions. Subsequently, when the threat seems easier to handle, the situation can be dealt with appropriately. EFC strategies become maladaptive when the individual does not move on to problem or approach coping strategies to change or adjust to the situation. Long-term use of EFC strategies has repeatedly shown to lead to negative health outcomes. Holahan and colleagues found that avoidant-style coping strategies lead to a higher number of depressive symptoms in adults over a ten-year period. Avoidant-style coping strategies...
also were strongly associated with negative psychological and physical outcomes in a meta-analytic review.\textsuperscript{32}

Furthermore, when a stressful situation and the resulting coping strategies do not correspond, dysfunctional outcomes may ensue.\textsuperscript{33} For example, if a spouse views the deployment of her husband as overwhelming or unchangeable and yet tries to solve the problem (a PFC strategy), she may not be able to deal adequately with the situation. In this case, it might initially be better to use venting (an EFC strategy) to help with overpowering emotions that might cloud judgment. However, if the person continues to vent about the situation for a long period of time yet does nothing to solve the problem or accept the reality of the situation, EFC strategies may become inappropriate and detrimental.\textsuperscript{34}

We have found no studies examining the relationship of coping strategies and health-related outcomes in military spouses; in the larger literature, however, PFC strategies appear to be more adaptive when a situation is controllable, while EFC strategies appear to be more adaptive when a situation is uncontrollable.\textsuperscript{35} Therefore, we hypothesize that greater EFC will be related to decreased depressive symptoms and physical symptoms when controllability of the stressor is low. Conversely, greater PFC will be related to decreased depressive symptoms and physical symptoms of illness when controllability of the stressor is high.

\section*{Method}

\textit{Participants and Procedures}

The participants in this study were a convenience sample of seventy-seven wives of military servicemen recruited from the Army’s 4th Infantry Division at Fort Hood in Killeen, Texas. Participants ranged in age from nineteen to fifty-one, with a mean age of thirty-three years, and had experienced an average of 2.19 foreign deployments ($SD = 1.27$; ranging from one to seven deployments). In the current deployment, their husbands had been absent an average of 8.97 months and were perceived to be in a dangerous location, given a reported mean of 7.57 on a scale ranging from 1 (not dangerous) to 5 (somewhat dangerous) to 10 (very dangerous). White respondents made up 66 percent of the population, followed by Hispanic or Latino (21 percent), African American (5 percent), Asian American or Pacific Islander (5 percent), and American Indian or Native American (1 percent). Participants were married an average of 8.5 years, with just under two (1.9) children on average per household. With respect to education, 13 percent of military spouses had a master’s degree or higher, 30 percent had a bachelor’s degree, 16 percent had an associate’s degree, 31 percent had some college, 9 percent had a high school degree or GED equivalency, and 1 percent had some high school. Only one of the women was currently enlisted in the military, and 26 percent had jobs outside of the home.

Our sample appears to be representative of the U.S. Army with respect to age and number of children, based on 2004\textsuperscript{36} and 2006\textsuperscript{37} demographic data. In terms of
ethnicity, the active U.S. Army is 62 percent white, 11 percent Hispanic, 21 percent African American, and 6 percent other ethnicities; accordingly, our sample was similar to the total Army population in terms of the proportion of white respondents but slightly overrepresented Hispanics and underrepresented African Americans. The number of wives currently enlisted in the military in our sample (1 percent versus 37 percent of wives in the U.S. Army) is underrepresented, although many married women serving at Fort Hood were likely deployed at the time of data collection.

Participants voluntarily completed a survey as part of the 4th Infantry Division’s Spouse Appreciation Day. This day is planned by the Family Readiness Group and held once per month for the spouses of military servicemen to congregate. The event takes place on the military base and is intended to provide resources through information and support from other spouses. As the spouses gathered, they were given the opportunity to complete the survey and were assured that their responses were anonymous and that their decision whether or not to participate would have no effect on their relationship with the Army or the University of Texas at Austin.

**Measures**

**Stressful experience.** Participants described in some detail the most stressful military situation they had experienced in the past five years. Participants also reported the degree to which the event was stressful at the time it occurred as well as the degree to which the event is currently stressful on a scale ranging from 1 (not at all stressful) to 7 (extremely stressful).

**Controllability of the stressful situation.** Appraised controllability was assessed using the following four items on a scale ranging from 1 (strongly disagree) to 4 (strongly agree): “I believe my stressful situation is controllable,” “There is nothing that can be done about my stressful situation,” “I believe my stressful situation is out of control,” and “Little can be done to change my stressful situation for the better.”

**Coping strategies.** Coping strategies were assessed using the twenty-eight-item brief version of the Coping Orientations to Problems Experienced Scale (Brief COPE). The Brief COPE measures a broad range of cognitive and behavioral coping strategies that individuals typically use in stressful situations. The instrument includes fourteen two-item subscales: active coping, planning, positive reframing, acceptance, humor, religion, emotional support, instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame. When completing this scale, participants were asked to reflect on the stressful situation they described and indicate the extent to which they used each coping strategy in dealing with this experience on a 4-point Likert scale ranging from 1 (not at all) to 4 (a lot).

Researchers disagree in terms of how the different coping strategies assessed by these subscales group into the larger constructs of PFC or EFC. In addition, researchers have warned against the practice of assuming that certain coping strategies are always grouped in the same way across different contexts. While some coping strategies clearly belong to one of the two broad categories, others, such as social support and positive reframing,
are harder to classify. For example, through positive reframing, an individual views a negative event in a positive light, while maintaining a realistic outlook. Some researchers regard this type of coping as emotion focused; others classify it as an approach coping strategy whose value exceeds merely reducing distress. In some studies, social support is considered an EFC strategy; in others, it is considered a PFC strategy; in still others, researchers give social support its own category.

Unfortunately, our sample consisted of too few women to allow a factor analysis of the items. Accordingly, we grouped the items together into the most commonly used supersets. PFC was defined as strategies used to directly address the stressful situation or whose value exceeded merely reducing distress and included active coping, planning, positive reframing, acceptance, two types of social support (emotional and instrumental), and religion. EFC was defined as strategies used to reduce or manage one’s emotional reaction and feelings of distress and included self-distraction, denial, venting, substance use, behavioral disengagement, self-blame, and humor. Some researchers include humor as a PFC strategy because its value is sometimes viewed as exceeding merely reducing distress. In this study, however, the humor subscale consisted of the items “I’ve made jokes about it” and “I’ve made fun of the situation,” which we felt were more appropriate to the EFC subscale. EFC and PFC scale scores were created by summing the individual items.

Physical symptoms of illness. The thirty-three-item Cohen-Hoberman Inventory of Physical Symptoms (CHIPS) was used to assess common physical symptoms of illness. The CHIPS asks participants to rate how bothered they were by various problems in the last two weeks on a 5-point Likert scale ranging from 0 (not at all) to 4 (extremely). Sample problems include nausea or vomiting, pains in the heart or chest, weight change, and muscle cramps.

Depressive symptoms. Depressive symptoms were measured using the twenty-item Center for Epidemiological Studies Depression Index (CES-D). Participants indicated on a 4-point Likert scale ranging from 0 (rarely or none of the time—less than one day) to 3 (all of the time—five to seven days) the extent to which they experienced various depressive symptoms during the past week such as “I felt that everything I did was an effort” and “I had crying spells.”

Results

Stressful Situations Reported by Military Spouses

Research question 1 examined the most stressful military situations experienced by soldiers’ wives in the past five years. Two independent reviewers read all of the stressful experiences and developed categories that qualitatively described these experiences. Subsequently, the reviewers divided these experiences into three categories, each of which contained subcategories, as illustrated in Table 1. Issues related to deployment were cited most often (85 percent), followed by relocation (11 percent), and other stressors (4 percent). These experiences were perceived as “a great deal”
stressful at the time they occurred (mean = 6.19) and were currently “moderately” stressful (mean = 4.15) on a scale ranging from 1 (not at all stressful) to 7 (extremely stressful). Below, as described by the spouses, are several examples.

Eighty-five percent of the spouses listed the foreign deployment of their husbands as the most stressful situation they had experienced in the past five years. With respect to deployment of soldiers, issues raising children in the husband’s absence were described most often. Several written examples include the following:

Example 1: During this deployment, I have encountered more stress with my children. My daughter has been having panic attacks and can make things very difficult and stressful. She feels scared all of the time and worried. It’s been very difficult to get medical attention due to the amount of people deployed. It took 2 months for me to get an appointment with a family psychologist in the area.

Example 2: We only recently joined the army and had an established life before this and 3 kids. The changes have been astronomical. Our children have adapted well for the most part, except our 6 year old daughter during this current deployment. She has never been without her daddy before, and now he is gone for a year. She cries every day, and even said she feels like he has died. She gets to talk on the phone with him, etc., yet still she grieves deeply. She has also been having tantrums. I do everything I can think of to help her, console her, try to help her cope, but her grief hasn’t gotten any better. This has been extremely stressful for me and her two older brothers.

Example 3: The most stressful situation I’ve experienced is basically raising my children alone. It was easy when they were young but now in their pre-teen

### Table 1. Percentage of the Most Stressful Military Situations Experienced in the Last Five Years by Category

<table>
<thead>
<tr>
<th>Situation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployment (85%)</td>
<td></td>
</tr>
<tr>
<td>Issues with children</td>
<td>21%</td>
</tr>
<tr>
<td>Other/general</td>
<td>16%</td>
</tr>
<tr>
<td>Worry/uncertainty</td>
<td>15%</td>
</tr>
<tr>
<td>Lack of support</td>
<td>15%</td>
</tr>
<tr>
<td>Death/injury to a soldier</td>
<td>12%</td>
</tr>
<tr>
<td>Length</td>
<td>7%</td>
</tr>
<tr>
<td>Relocation (11%)</td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>7%</td>
</tr>
<tr>
<td>Lack of support</td>
<td>3%</td>
</tr>
<tr>
<td>Giving up career</td>
<td>1%</td>
</tr>
<tr>
<td>Other (4%)</td>
<td></td>
</tr>
<tr>
<td>September 11</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
</tbody>
</table>
years—well sometimes they just need dad. They are becoming their own people. It’s stressful because even though you instill in them values, morals, and how important God and education are they still have to deal with the peer pressure. . . .

Example 4: What is so stressful is that my husband went to Iraq at the beginning of the war for 9 months and came home for 2 and 1/2 months and was sent to Korea for 1 year. When he got back from Korea we moved here to Fort Hood, he was here for 9 months and was deployed to Iraq again. . . . My 16 year old son has started acting out and this is real hard on me.

Worry or uncertainty about the future while the husband was deployed was also seen as a stressor by many of the spouses. Spouses reported concern that their husbands would be injured or would not return home. Such uncertainty heightened the separation anxiety and caused some spouses to worry about the possibility of indefinite separation. Several written examples include the following:

The most stressful situation would have to be my husband deploying to Iraq. This is our first time apart. We have two babies, one 19 months, the other 8 months. I stay home alone with them and take college courses online, which can add stress and become overwhelming. But with him being away and not knowing if he will make it home is really hard.

My husband’s first deployment to Iraq. One time we were talking on the phone (his phone center has 2 phones outside in his small base camps) and I heard mortar rounds hit one after another and my husband told me “I gotta go, I gotta go!” and the phone dropped and was banging and I could hear everything, them returning fire and yelling. It scared the hell out of me. When it was all happening I just sat on the phone and listened in fear and disbelief. Eventually it stopped and he came back to the phone.

My husband going off to War! I have been a military wife for 13 years and yes my husband has been deployed numerous times for peace-keeping missions 6 months or more. However, never has he been in a truly dangerous unpredictable situation like he has for 2 tours in Iraq. He has been in a HumV on two separate occasions where it has been hit by an IED [improvised explosive device]. He came out of both incidents with minor injuries.

In addition, several women expressed worrying more about the safety of their husbands when other soldiers were injured or killed. Three written examples include the following:

Going to a friend’s house whose husband just died after only three weeks of deployment and my husband just having left. Her husband died in Iraq from an IED. She has four children to take care of.
In one situation, a friend’s husband was killed and she called me with the officer at the door. I was out of state and could not help. Her husband was killed on a mission for my husband.

The most stressful situation is dealing with deployments and talking to our children about it. Also, getting a phone call that my husband was hurt and had to be air lifted to a hospital and hearing that another soldier had been killed.

Death of a soldier was also difficult on the spouse of a commander because of the added duties associated with that position. One particular written example follows:

Being a BDE [brigade] commander’s spouse and dealing with casualties in the unit; especially the family members of a deceased soldier. You feel so horrible for them. And you know nothing you do will ever be enough.

Two final aspects of the stress related to deployment were a lack of support while the husband was away and several issues coded as “other” pertaining to specific situations related to deployment (e.g., illness/death of a parent, car accident, house flooding), which were grouped as “other/general” discontent with deployment. Three written examples related to lack of support follow:

Example 1: On June 9, 2005 I gave birth to our third child while my husband was at basic training. My best friend was with me the whole time through my labor, which was induced two days after my due date. . . . Two days after giving birth, my best friend took us home, where we would be joined by my other two children. Reality set in on the car ride home that my husband would not be there when I got there or even soon to help. By that evening, I would be alone with my 3 children, all under 4 years of age. I felt sad, scared, and overwhelmed.

Example 2: The birth of my second child and my husband not being there. And then having medical problems that day and being in a coma without him being my support through the whole scenario.

Example 3: At the end of March I began having anxiety attacks in the middle of the night where I felt unable to catch my breath. . . . It was very frightening for me to be living alone with my husband gone and family far away. I was scared that if something happened to me, there would be no one to help me or take me to the hospital.

An example grouped as other/general discontent with deployment includes the following:

Within the same day my house flooded, my dog was sick, my credit card was stolen, and my husband hadn’t called in over a week.
Following deployment, relocation was expressed by 11 percent of the spouses as a significant source of stress. In addition to the more general stress of relocating, several women expressed the lack of support when moving to a new Army base and giving up their careers as a result of recurrent relocations as their most stressful experience. In regard to lack of support while relocating and the effect of relocation on career options, two examples, respectively, follow:

Example 1: I would describe the time we moved to Killeen, Texas. We had very little info; a wait for housing; very few choices for living arrangements. On top of those problems, we had only a few short days to find a house to move into, due to the fact we had to pay for everything out of pocket before reimbursements. With a family of 5 children, going to different schools, one requiring uniforms, the stress factor was at an abnormal level, even for both parents present.

Example 2: As a new spouse [less than two years of marriage], the most stressful situation is giving up my career path due to our moves over the past four years of our relationship. I left a high paying job to move with my [then] fiancé. We are an older couple, and do not plan to have children. My job/career determined my sense of self and accomplishment. Moving two times in four years means I have to reinvent my career path and am struggling to figure out a new direction that will fulfill my needs, support my spouse, and be “transferable.”

A final small category named “other” represents the remaining 4 percent of responses. This category included the tragic events of September 11 and a nonmilitary accident. With regard to September 11, one spouse wrote,

When September 11th happened I knew that it would have an adverse effect on my life because of my husband in the military. The uncertainty of how our life was going to change and what was happening to America and whether it was going to continue was probably the most stressful thing.

Coping Strategies Used by Military Spouses

The second research question examined the strategies that military spouses use to cope with the stressful situations they face. As shown in Tables 2 and 3, military spouses use both PFC and EFC strategies in addressing their stressful experiences. Although the two coping categories were positively related ($r = .43, p < .001$), women scored significantly higher, $t(75) = 23.33, p < .001$, on PFC than on EFC. This is noteworthy, given the stressful and seemingly uncontrollable nature of the experiences military spouses encounter. The most frequently used PFC strategies include acceptance, planning, active coping, religion, and using emotional support. The most frequently used EFC strategies include self-distraction, venting, humor, self-blame, and denial. All PFC strategies were used more frequently than EFC strategies, with the exception of self-distraction, which ranked fifth in usage.
Table 2. Coping Strategies Used by Military Spouses in Descending Order by Category

<table>
<thead>
<tr>
<th>Coping Strategy</th>
<th>Category Mean</th>
<th>Item Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance (PFC)</td>
<td>3.43</td>
<td>3.62</td>
</tr>
<tr>
<td>I’ve accepted the reality of the fact that it happened.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve learned to live with it.</td>
<td></td>
<td>3.24</td>
</tr>
<tr>
<td>Planning (PFC)</td>
<td>3.35</td>
<td>3.37</td>
</tr>
<tr>
<td>I’ve tried to come up with a strategy about what to do.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve thought hard about what steps to take.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active coping (PFC)</td>
<td>3.29</td>
<td>3.34</td>
</tr>
<tr>
<td>I’ve taken action to try to make the situation better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve concentrated my efforts on doing something about the situation I am in.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion (PFC)</td>
<td>3.23</td>
<td>3.25</td>
</tr>
<tr>
<td>I’ve prayed or meditated.</td>
<td></td>
<td>3.21</td>
</tr>
<tr>
<td>I’ve tried to find comfort in my religion or spiritual beliefs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-distraction (EFC)</td>
<td>3.23</td>
<td>3.28</td>
</tr>
<tr>
<td>I’ve turned to work or other activities to take my mind off things.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve done something to think about it less, such as go to the movies, watch TV, read, daydream, sleep, or go shopping.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using emotional support (PFC)</td>
<td>3.20</td>
<td>3.23</td>
</tr>
<tr>
<td>I’ve gotten comfort and understanding from someone.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve tried to get emotional support from others.</td>
<td></td>
<td>3.17</td>
</tr>
<tr>
<td>Positive reframing (PFC)</td>
<td>3.09</td>
<td>3.16</td>
</tr>
<tr>
<td>I’ve tried to see it in a different light, to make it seem more positive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve looked for something good in what happened.</td>
<td></td>
<td>3.01</td>
</tr>
<tr>
<td>Using instrumental support (PFC)</td>
<td>3.06</td>
<td>3.16</td>
</tr>
<tr>
<td>I’ve gotten help and advice from other people.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve tried to get advice or help from other people about what to do.</td>
<td></td>
<td>2.95</td>
</tr>
<tr>
<td>Venting (EFC)</td>
<td>2.34</td>
<td>2.59</td>
</tr>
<tr>
<td>I’ve expressed my negative feelings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve said things to let my unpleasant feelings escape.</td>
<td></td>
<td>2.07</td>
</tr>
<tr>
<td>Humor (EFC)</td>
<td>2.22</td>
<td>2.33</td>
</tr>
<tr>
<td>I’ve made jokes about it.</td>
<td></td>
<td>2.12</td>
</tr>
<tr>
<td>I’ve made fun of the situation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-blame (EFC)</td>
<td>1.69</td>
<td>1.95</td>
</tr>
<tr>
<td>I’ve criticized myself.</td>
<td></td>
<td>1.43</td>
</tr>
<tr>
<td>I’ve blamed myself for things that happened.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denial (EFC)</td>
<td>1.45</td>
<td>1.74</td>
</tr>
<tr>
<td>I’ve said to myself, “This isn’t real.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve refused to believe that it happened.</td>
<td></td>
<td>1.16</td>
</tr>
<tr>
<td>Substance use (EFC)</td>
<td>1.34</td>
<td>1.34</td>
</tr>
<tr>
<td>I’ve used alcohol or other drugs to make myself feel better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve used alcohol or other drugs to help me get through it.</td>
<td></td>
<td>1.33</td>
</tr>
<tr>
<td>Behavioral disengagement (EFC)</td>
<td>1.22</td>
<td>1.25</td>
</tr>
<tr>
<td>I’ve just given up trying to deal with it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’ve given up the attempt to cope.</td>
<td></td>
<td>1.20</td>
</tr>
</tbody>
</table>

Note: PFC = problem-focused coping; EFC = emotion-focused coping.
Coping Strategies, Controllability, and Health-related Outcomes

The third and final research question examined the goodness-of-fit hypothesis, which states that the effects of PFC versus EFC strategies on reducing distress are moderated by the appraised controllability of the stressor. Table 3 shows the possible range, mean, standard deviation, and internal consistency of the PFC and EFC subscales, along with the other variables used in the regression analyses. The internal consistency reliability for each of the variables in the study is acceptable. Both coping scales contain the same number of items; accordingly, the means can be readily compared. Note that the mean of depressive symptoms (16.23) is somewhat high, with a normal distribution ranging from 1 to 39. A score of 16 or greater on the CES-D is considered a moderately severe level of depressive symptoms; 44.2 percent of our sample scored in this high range.

We believed that controllability was likely to moderate the relationship between each coping strategy and the outcome; accordingly, each model was performed using sequential regression, with the main effects entered in the first step, followed by the interaction effects in the second step. If the change in $R^2$ was significant between the first and second step, then the interactions were retained in the model; if the change in $R^2$ was not significant, the second step containing the interactions was dropped from the model. All predictor variables were centered before creating the interactions; centering the predictors reduces potential multicollinearity between the predictors and interactions and allows for greater interpretability of the model coefficients. One individual was dropped from these analyses due to missing data on several of the predictor variables.

For the regression predicting physical symptoms, the first step containing the main effects was significant, $F(3, 72) = 2.92, R^2 = .11, p < .05$, and the second step containing the interactions explained a significant additional amount of variance, $\Delta F(2, 70) = 3.24, \Delta R^2 = .08, p < .05$. The final model containing the interaction effects is summarized in Table 4. EFC was positively related to increased physical symptoms, with no significant interaction effect with controllability. In contrast, PFC had a nonsignificant negative main effect but a significant and positive interaction effect, indicating that as controllability increases, the effect of PFC becomes less negative. To more clearly

Table 3. Descriptive Statistics for Variables Used in the Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Possible Range</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem-focused coping</td>
<td>14–56</td>
<td>45.30</td>
<td>7.06</td>
<td>.83</td>
</tr>
<tr>
<td>Emotion-focused coping</td>
<td>14–56</td>
<td>26.97</td>
<td>5.48</td>
<td>.71</td>
</tr>
<tr>
<td>Controllability</td>
<td>0–16</td>
<td>10.36</td>
<td>3.54</td>
<td>.74</td>
</tr>
<tr>
<td>Physical symptoms</td>
<td>0–132</td>
<td>23.54</td>
<td>20.83</td>
<td>.93</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>0–60</td>
<td>16.23</td>
<td>9.83</td>
<td>.89</td>
</tr>
</tbody>
</table>

Note: SD = standard deviation.
interpret the meaning of this interaction effect, we computed the simple slope of PFC at one standard deviation above and below the mean of controllability (because all predictors are centered, the simple slope of PFC at the mean of controllability is equivalent to the main effect of PFC presented in Table 4). The significance of each simple slope was also calculated. For those high in controllability, the simple slope of PFC was nonsignificant (b = 0.58, SE = 0.39, n.s.). For those low in controllability, the simple slope of PFC was significantly negative (b = −1.33, SE = 0.50, p < .01). Accordingly, PFC was related to decreases in physical symptoms only when respondents felt that they had little control over the situation.

For the regression predicting depression, the first step containing the main effects was significant, F(3, 72) = 6.19, R² = .21, p < .001, but the second step containing the interactions explained an insignificant additional amount of variance, ΔF(2, 70) = 1.47, ΔR² = .03, n.s. The final model containing only the main effects is summarized in Table 4. EFC was marginally related to increased depression, while controllability and PFC were each related to decreased depression.

**Discussion**

This study extends the stress, coping, and health-related outcome literature by examining the most stressful experiences encountered by spouses of military servicemen during the past five years, the coping strategies used to deal with these experiences, and whether the coping strategies and moderating effects of controllability are predictive of health-related outcomes. Consistent with previous research, military spouses in this study reported issues surrounding deployment as their most stressful experience. Feelings of loneliness, role overload, financial difficulties, child-related issues, worry...
over long-distance relationship maintenance, and separation anxiety are common concerns related to deployment, all of which were mentioned by the military spouses in the current study. The separation anxiety caused some spouses to think about the possibility of indefinite separation, supporting the assertion that fear of death is a major concern for spouses of deployed soldiers. Military spouses with children reported trying to be strong for fear that their feelings of depression and fear would be mirrored in their children. Nonetheless, spouses reported dealing with a variety of child-related issues related to the role of a single parent, ranging from behavioral problems and anxiety to physical ailments. Previous research also confirms the difficulties associated with relocation. The frequent and distant moves as well as the challenge of maintaining a career when constant relocations are a way of life were echoed by military spouses in the current study.

Traditionally, strong social support systems (e.g., friends and family, support groups, church members, work colleagues) have been positively associated with separation adjustment in military families. Family readiness support groups sponsored by the Army, such as the group these spouses were participating in, are specifically designed to serve this purpose. Nonetheless, a small percentage of spouses perceived a lack of social support with respect to the duties associated with deployment (15 percent) and relocation (3 percent). Given the surge in deployment resulting from September 11, increasing terrorist attacks, and the war in Iraq, military families continue to face an increasing array of challenges for which they need support. Clearly, military families live a lifestyle unlike any other population group, and more needs to be done to help these families adjust.

Segal has described the demands placed on individuals by both the military and the family (e.g., commitment, loyalty, time, energy) as possessing characteristics of “greedy” institutions. Greedy institutions pressure individuals to weaken their ties or not form ties in the first place with other institutions or individuals that make demands conflicting with their own demands. Families are expected to adapt to the greediness of the military institution. Yet the family itself can also be a particularly greedy institution at certain stages of life: for example, when the couple is newly married, when children are very young, when parenting adolescents, or when the housewife role is a less exclusive role for women. Currently, there is strong conflict between these two greedy institutions. The more military services can adapt to the needs of the family, the more committed families will be to the military institution.

Drummet, Coleman, and Cable have proposed the need for family life educators (FLEs) to address the well-being needs of military families over the life span. FLEs are trained to focus primarily on prevention rather than crisis management, emphasize education and growth, and avoid focusing on pathology. FLEs help military families develop informal support groups led by trained military family members as well as visit families at their homes and keep all conversations confidential. Given the stigma and low participation related to more formal types of interventions, FLEs might be perceived as more acceptable and supportive than formal counselors. Some U.S. military bases also employ family life consultants to visit families at their homes; this
service reduces the potential stigma associated with visiting a counselor at a social service agency. Providing such services may help families believe that “the military takes care of its own” and thus result in less conflict between the greedy institutions of the military and the family.\(^{60}\)

With respect to the second research question, military spouses used both PFC and EFC strategies in dealing with their stressful experiences. Whereas the two coping categories were positively related, PFC strategies were reported in much greater frequency than EFC strategies, implying greater efforts to alter the source of their stress rather than viewing the stressor as something that must be endured. Because researchers typically agree that PFC is a more adaptive strategy and tends to predominate when people feel something constructive can be done, we conclude that in general, the military spouses in the current study coped relatively effectively with the stressful experiences they reported. Nonetheless, it is important to emphasize that it is inappropriate to pit PFC and EFC against each other in an effort to determine which one is most useful.\(^{61}\)

According to Lazarus, as reported by Austenfeld and Stanton, “in a culture centered on control over the environment, it is easy to come to the erroneous conclusion—which is common in the coping research literature—that problem-focused coping is always or usually a more useful strategy.”\(^{62}\) Furthermore, Skinner and colleagues\(^{63}\) argue that lack of consensus about the core coping categories has slowed research progress, and with over one hundred different coping instruments to choose from, it is “practically impossible to aggregate findings relevant to the same stressor and domain, much less compare results across different stressors or domains.”

The third research question examined the goodness-of-fit hypothesis, which proposes that when dealing with an uncontrollable stressor, use of EFC strategies is related to less depressive symptoms and physical symptoms of illness, whereas, when dealing with a controllable stressor, use of PFC strategies is related to fewer symptoms of illness. The alternative main-effects hypothesis states that PFC strategies are generally more effective in reducing distress regardless of appraisal of controllability. While EFC strategies were used the least by military spouses in this study, increased use of EFC in stressful situations was related to increased physical symptoms of illness and marginally higher depressive symptoms. These main-effects findings are consistent with previous research illustrating that long-term use of EFC strategies is related to negative health outcomes.\(^{64}\) However, our findings are inconsistent with the goodness-of-fit hypothesis,\(^{65}\) in that EFC strategies were related to negative health-related outcomes independent of the moderating effects of controllability of the stressor.

The above results support the poor reputation of EFC as a coping mechanism. In its defense, however, Austenfeld and Stanton\(^{66}\) argue that coping surveys are confounded with distress and self-deprecation. They discuss two types of emotional-approach coping (e.g., emotional processing and emotional expression) that have shown adaptive potential in the context of several types of stressors, including infertility, breast cancer, and chronic pain. Sample items, such as “I acknowledge my emotions,” “I take time to figure out what I’m really feeling,” and “I allow myself to express my emotions,” reflect active attempts to acknowledge, explore meanings, and understand one’s
emotions. Clearly, EFC operationalized as reducing or managing emotional distress is potentially very different from emotional-approach coping, designed to acknowledge, understand, and express one’s emotions and may lead to different health-related outcomes. The term *emotional-approach coping* is similar to what Park and Folkman have termed *meaning-focused coping*, a type of coping that involves neither attempting to change the stressful situation or alleviate the distressing emotions. Rather, meaning-focused coping involves changing the meaning of the situation to be more aligned with a person’s beliefs and goals. Therefore, in addition to the moderating effect of controllability, future research should examine the difference between PFC, EFC, and meaning-focused coping strategies with respect to physical and psychological health outcomes.

Consistent with previous research, increased PFC and controllability of the stressor were related to less depression. That is, military spouses experienced less depression if they felt some control over their stressful situations and used PFC strategies designated to alter the source of stress. However, PFC strategies were related to decreases in physical symptoms of illness only when controllability of the stressor was low. Although we found some support for the notion that PFC can be efficacious when perceived control is low, research has typically shown that when situations are controllable, PFC strategies predominate and are more effective. However, such findings have typically limited PFC strategies to active coping strategies, such as taking action and planning, whereas the operational definition of PFC strategies in the current study was much broader and includes a range of coping strategies aimed at problem solving or altering the source of the stress. For example, if a spouse perceives little control over the stress of relocation, then coping strategies such as positive reframing and seeking emotional and instrumental support might be beneficial. One might also gain comfort from one’s religion as well as the coping strategy of acceptance and, within that context, use the coping strategies of active coping and planning to alter the stress. It is also possible that when perceived control of the stressor is high, increased PFC resulting from an excessive number of stressors could potentially result in increased physical symptoms of illness if a spouse is constantly striving to cope and never takes time to relax. Future research that examines the controllability of the stressor in conjunction with the usage of various coping strategies over time could further clarify the relationship between coping, controllability, and health outcomes.

The findings of the current study should be considered in light of several limitations. First, participants were not randomly selected from the population. Although our sample is representative of the population from which it was drawn in terms of age, number of children, and the proportion of white respondents, Hispanics were slightly overrepresented and African Americans were underrepresented, which has implications for generalizability of the results. Furthermore, it is possible that military spouses with high depressive symptoms chose to attend the Spouse Appreciation Day and self-selected into the study, thus resulting in the higher than normal level of depressive symptoms found in the sample. However, it is also possible that the
observed high depressive symptoms resulted from increased stress associated with being a military spouse and that wives not in attendance had even greater difficulties coping with the stress of deployment. When possible, future research should randomly select from the target population to increase the external validity of study results. Second, marital satisfaction was not measured in this study. We know that participants were married on average over eight years and that military service and combat experience affect one’s marriage; however, we were unable to examine the effect of marital satisfaction on perceptions of stress, controllability, and ensuing health outcomes. For example, it is possible that unhappily married wives experience deployment as less stressful than those who are happily married and are thus able to deal with the deployment more effectively. Third, the use of self-report survey data has inherent limitations, such as the potential for untruthful or inaccurate responses due to lack of self-awareness. Future research should consider including objective observations of behavior and/or objective health outcomes, such as verifiable depression or physical illness. Fourth, while comparable to some cross-sectional studies, the sample size was relatively small and may have contributed to the lack of significant findings in some instances. Larger sample sizes are needed to continue to investigate the coping strategies used by military spouses and the relationship of these strategies to health-related outcomes. Finally, correlations and regressions using cross-sectional data were used to test the relationships between coping strategies, the moderating effect of controllability, and physical and mental health outcomes; accordingly, cause-and-effect relationships cannot be determined, and it is possible that other variables account for some of the observed relationships. Future research should use a prospective design to further examine the nature of the predictive relationships between coping strategies and health outcomes across time.

Despite these limitations, the implications from the results of this study could have a significant, positive impact on the wives of military servicemen. Interventions can be designed that educate military spouses with regard to the effective use as well as short- and long-term effects of PFC and EFC strategies to achieve optimal health in times of stress.

Notes

14. Drummet, Coleman, and Cable, “Military Families under Stress.”
20. Orthner, *Deployment and Separation Adjustment*. 

Downloaded from http://afs.sagepub.com at UNIV OF TEXAS AUSTIN on January 2, 2010


27. Zakowski et al., “Appraised Control, Coping, and Stress in a Community Sample.”


32. Penley, Tomaka, and Weibe, “Association of Coping to Physical and Psychological Health Outcomes.”

33. Lazarus and Folkman, *Stress Appraisal and Coping*.

34. Holahan et al., “Stress Generation, Avoidance Coping, and Depressive Symptoms.”


40. Lazarus and Folkman, *Stress Appraisal and Coping*.


49. Ibid.


52. Drummet, Coleman, and Cable, “Military Families under Stress.”


54. Cooke and Speirs, “Migration and Employment among the Civilian Spouses of Military Personnel.”


57. Ibid.

58. Drummet, Coleman, and Cable, “Military Families under Stress.”
59. Ibid.
60. Segal, “The Military and Family as Greedy Institutions.”
61. Lazarus, Stress and Emotion; and Lazarus and Folkman, Stress Appraisal and Coping.
65. Zakowski et al., “Appraised Control, Coping, and Stress in a Community Sample.”
69. Holahan et al., “Stress Generation, Avoidance Coping, and Depressive Symptoms.”

Bios

Erin E. Dimiceli received her master’s degree from the University of Texas at Austin in Health Education from the Department of Kinesiology and Health Education. Her research and collaboration with the U.S. Army’s 4th Infantry Division was especially significant because many of her close friends and family members are impacted by the lifestyle required of military personnel. She currently works in corporate health and wellness, designing programs to encourage and educate employees to practice healthy lifestyles and ultimately reduce health care costs for employers. E-mail address for correspondence: erin.dimiceli@gmail.com.

Mary A. Steinhardt is a professor of health education in the Department of Kinesiology and Health Education at the University of Texas at Austin. Her research explores the determinants and methods for building resilience and strength when challenged with change and stressful situations. She has worked with the U.S. Army’s 4th Infantry Division at Fort Hood, as well as such corporations as 3M, Motorola, Dell, and Applied Materials. She is the recipient of the First Annual Dean’s Distinguished Teaching Award in the College of Education in 2002, the Texas Excellence Teaching Award in 2003, and selected to the Academy of Distinguished Teachers at The University of Texas in 2004. In 2007, she received the Robert Murff Excellence Award in recognition of outstanding support of career services. Dr. Steinhardt also serves as Faculty Ombudsperson for The University of Texas. E-mail address for correspondence: msteinhardt@mail.utexas.edu.
Shanna E. Smith is a Senior Research Associate at Teachers College, Columbia University, where her research focuses on programs that may improve the educational outcomes of low-income and underprepared community college students. Formerly, she managed the consulting office of the University of Texas at Austin’s Division of Statistics and Scientific Computation. She holds a Ph.D. in Human Development and Family Science, and has published in the Journal of Personality and Social Psychology, Current Directions in Psychological Science, the American Journal of Health Behavior, Alcoholism Clinical and Experimental Research, and Performance Measurement and Metrics, as well as in the book Continuity and Change in Family Relations: Theory, Methods, and Empirical Findings. E-mail address for correspondence: jaggars@tc.edu.