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14. ABSTRACT Families play a unique and complex role in the well-being of the military fighting force, particularly in the wake of combat. It is recognized that family adjustment can impact significantly on organizational factors such as readiness, morale and retention service members (Booth et al., 2007). Further, the family provides key elements of social support following combat exposure, one of the strongest predictors of successful adjustment following trauma associated with lower rates of posttraumatic stress disorder (PTSD). The study aims to: (1) examine family adjustment and its role in promoting resilience among military personnel; (2) document the impact of combat deployment on relationships; (3) identify pre-deployment factors that increase or decrease resilience among military families; (4) to identify possible mechanisms through which individual and family adjustment impact one another; and (5) to model the longitudinal course of adjustment over the deployment cycle. Approximately 500 deploying military service members and their spouses will participate. Participants will be asked to complete several measures of individual and relationship functioning repeatedly across a 21-month period that includes a combat deployment. Evaluations will begin about one month before the deployment and will be repeated about every four months.					
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Table of Contents

	<u>Page</u>
Introduction.....	4
Body.....	5
Key Research Accomplishments.....	6
Reportable Outcomes.....	6
Conclusion.....	6
References.....	6
Appendices.....	6

INTRODUCTION:

The purpose of the study funded by this award is to examine the varied and complex responses of military service members and their families to the experience of a combat deployment. It is generally recognized that the stress of combat deployments can have significant emotional, physical, and spiritual effects on service members and their families. However, it is not the case that the impact of deployments are universally negative – the vast majority of service members and military families demonstrate resilience in the face of this stress, and many describe significant growth as a result of the experience. A full understanding of the impact of deployments on military families is vital because: (1) family support can contribute significantly to the emotional adjustment of combat veterans, and (2) family well-being and adjustment are significant factors in determining the morale, readiness, and retention of service members.

In general, military families demonstrate a great deal of resilience and ability to cope with the stress of the military lifestyle. Even when coping with deployments, these relationships appear generally strong with only 10% of Army spouses reporting that deployments have weakened their marriages (Bell & Schumm, 2004; Segal, Segal & Eyre, 1992).. Similarly, in the Survey of Army Families (2005) only a small percentage (about 5% to 6%) of the spouses who indicated that they were satisfied with their marriages prior to a deployment reported that they were not satisfied with them during or after the deployment. Despite this general pattern of resilience, some families do experience significant problems as a result of the service member's deployment. The duration and frequency of deployments as well as shorter intervals between deployments tend to increase family distress (Booth et al., 2007).

Exposure to combat operations and the aftermath of combat, including wounded and killed personnel and civilians, places combatants at risk for significant emotional or psychological injury. Even short of psychological injury, combat can have a profound impact on those who experience it. Estimates of the prevalence of chronic psychological difficulties among OEF/OIF veterans range as high as 18.5% (RAND, 2007). Strikingly, many of the same factors that negatively impact family adjustment are also implicated in the adjustment of individual service members experiencing deployment. In the MHAT-IV (Mental Health Assessment Team - IV, 2006) study of soldiers and marines serving in Iraq, multiple deployments and longer deployments were associated with increased emotional distress and symptoms of acute stress disorder. Thus, those service members who might benefit most from the support offered by the family (those with significant levels of emotional distress following their combat experience) are least likely to obtain it because the families are placed under significant stress by the same long, frequent deployments.

A large body of research supports the conclusion that social support is associated with decreased PTSD symptomology (Keane et al., 1985; Green et al., 1985). Family members, including spouses, are seen as **primary** sources of support (Griffith, 1985). Thus, difficulties within the families of our returning warriors may contribute to persistent emotional problems such as PTSD. In other words, the individuals most in need of the support offered by family may be least likely to have it available. There is a substantial literature that indicates significant family difficulties associated with PTSD symptoms among combat veterans and survivors of other traumas. Studies conducted in the U.S. and elsewhere have documented elevated rates of marital and family problems among combat veterans with PTSD as compared to veterans without PTSD (e.g., Carroll, Rueger, Foy, & Donohoe, 1985; Gold et al., 2007; Jordan, et al., 1992; MacDonald et al., 1999; Riggs et al., 1998; Solomon, Mikulincer, Fried, & Wosner, 1987; Solomon, Waysman, & Mikulincer, 1990).

Data suggest that the impact of combat-related symptoms on family relationships may begin very shortly after the service member returns from combat. For example, Mikulincer, Florian, and Solomon (1995) studied the wives of veterans who had significant combat stress reactions (CSR). Results indicated that the wives of the veterans with CSR experienced significantly more difficulties than the wives of non-CSR veterans and that these problems began shortly after the veterans returned from combat. These relationship difficulties, if unaddressed, can lead to the dissolution of the relationship. Estimates based on the National Vietnam Veterans Readjustment Survey (NVVRS; Jordan et al., 1992; Kulka et al., 1990), suggest that veterans with PTSD were divorced at twice the rate of those without PTSD, and veterans with PTSD were almost three times more likely to have been divorced multiple times.

This is not to say that adjustment difficulties necessarily begin with the problems of the returning service member. Clearly families will vary in how well they have coped with the deployment separation and in their

response to the reintegration of the service member. Regardless of whether the process begins with the manifestation of CSR or PTSD symptoms in the returning service member or in the unsupportive, critical response of family, the interdependence of individual and family adjustment will lead to a negatively spiraling process.

Most of what we have learned about the interrelation of individual trauma-related symptoms and family functioning is derived from studies of Vietnam veterans in the United States and Israeli veterans of various wars (Galovski & Lyons, 2004). Typically, these studies have been cross-sectional and retrospective in design and were conducted years after the combat experience. The absence of substantial data collected longitudinally over the course of deployment means that there are many unanswered questions about the course of and interaction between individual and relationship adjustment in the context of a combat deployment.

This study utilizes a prospective longitudinal design that includes collection of data from both service members and their spouses. Further, the study's longitudinal format will allow data collection throughout the deployment cycle including an assessment of individual and relationship adjustment prior to deployment. These data will allow us to examine ways in which family support contributes to service members' ability to successfully adjust following combat and how this process may be disrupted when families have difficulties adjusting to deployment.

Approximately 500 deploying military service members and their spouses will be included in the proposed study. This longitudinal study will include repeated measures of individual symptoms and functioning as well as relationship factors across a 21-month period encompassing a combat deployment. Evaluations will begin about one month prior to deployment and will be repeated approximately every four months. With this schedule we will be able to follow individuals and families through the course of the deployment and for a period of time after the return from combat. Follow-up will be naturalistic, but we will identify and track those participants who receive treatment to evaluate the role of treatment in recovery.

BODY:

- Preparation and Review of the Research Proposal for Multiple IRB Approvals. Dr. Riggs is working to prepare a protocol and support documents for submission to the USUHS IRB for review and approval.
- Hiring and Training of Research Staff. Pending IRB approval.
- Participant Recruitment, Therapy, Participant Evaluation. Recruitment and evaluation await the finalization of recruitment sites and IRB approvals. However, procedures for the recruitment and assessment instruments have been identified and await IRB approval. The procedure for standardized assessment has is being finalized, and a Manual of Procedures will soon be finalized. Participant recruitment was anticipated to have begun this past quarter; however, this has not yet happened. The delay in participant recruitment is due to difficulties identifying recruitment sites.
- Data Analysis. Pending participant recruitment and assessment.

KEY RESEARCH ACCOMPLISHMENTS:

- None to report as of yet.

REPORTABLE OUTCOMES:

- None to report as of yet

CONCLUSIONS: Progress on this study has been slowed by IRB requirements and difficulties identifying appropriate data collection sites. However, procedures and protocols have been finalized pending IRB approval and this should speed recruitment and data collection once IRB approval is obtained.

REFERENCES:**APPENDICES:**

None included.