

Family-Related Risk and Resilience Factors during Deployment and OEF/OIF Veterans' Postdeployment Mental Health

Dawne Vogt, PhD

Research Psychologist

Women's Health Sciences Division, National Center for PTSD

Associate Professor of Psychiatry, Boston University School of Medicine



Collaborators and Contributors

- Alex MacDonald, PhD
- Tabatha Blount, PhD
- Brian Smith, PhD
- Brian Walker, BA



Background and Justification

- Growing body of literature suggests that family plays an important role in servicemember's readjustment after deployment
 - Among National Guard OEF/OIF veterans, both higher perceived social support and better marital satisfaction associated with lower PTSD and depression symptom severity¹
 - Social support from family and friends found to be protective against PTSD, depressive symptoms, and suicidal ideation in a sample of OEF/OIF veterans^{2 3}
- Family risk and resilience factors during deployment may also impact service members' postdeployment health and well-being
 - Studies of OEF/OIF veterans indicate that concerns about family members and relationships during deployment are related to postdeployment PTSD symptoms^{4 5}
- However, few studies to date on this topic

¹ Renshaw, Rodriguez, & Jones (2009)

² Piertzak, Johnson, Goldstein, Malley, Rivers, Morgan, & Southwick (2010)

³ Piertzak, Goldstein, Malley, Rivers, Johnson, & Southwick (2010)

⁴ Vasterling, Proctor, Friedman, Hoge, Heeren, King, & King (2010)

⁵ Vogt, Smith, Elwy, Martin, Schultz, Drainoni, & Eisen (2011)

Background and Justification

- Opportunity to examine family-related risk and resilience factors during deployment in large sample of OEF/OIF veterans
- Primary Aims:
 - Evaluate the frequency with which OEF/OIF Veterans report experiencing various family-related risk and resilience factors during deployment
 - Examine their associated relationship with postdeployment mental health and adjustment

Participants

- Potential participants randomly selected from DoD roster of all OEF/OIF Veterans who had returned from deployment and separated from service within prior two years (2008-2010)
- Completed mail surveys received from 1,046 Veterans (39%)
- Target sample stratified by deployment component (50% Active Duty, 50% National Guard/Reservist), with women oversampled to comprise 50% of targeted sample



Sample Demographics

- 66% served in OIF; 34% served in OEF
- 53% female, 47% male
- 57% Active Duty; 43% National Guard or Reserves
- All branches of service, with 65% Army
- **55% reported living with a spouse or significant other at time of deployment**
- **40% reported being parents at the time of deployment**
- Race/Ethnicity: 75% White, 14% Black, and 12% Hispanic
- Mean age was 35



DRRI-2¹ Family-Related Deployment Measures

- Family Stressors
 - A 14-item Yes/No measure assessing exposure to objective stressful family experiences during deployment, such as family adjustment issues, family illnesses, and having a relationship end
- Concerns about Family Disruptions
 - A 13-item scale assessing concerns about family during deployment, including concerns about the well-being of spouses/partners and children and missing out on important family events
 - Coefficient Alpha = .90
- Deployment Social Support from Family and Friends
 - An 8-item scale assessing extent to which individuals perceive that they received emotional sustenance and instrumental assistance from family and friends during deployment
 - Coefficient Alpha = .92



¹ Vogt, Smith, King, King, Knight, & Vasterling, 2013

Postdeployment Mental Health and Adjustment Measures

- Military Version of PTSD Checklist¹
 - Consists of 17 items addressing hyperarousal, avoidance and numbing, and re-experiencing symptoms related to deployment experiences
 - Coefficient Alpha = .96
- Adapted version of Beck Depression Inventory-Primary Care²
 - Consists of 7 statements from original Beck Depression Inventory but with a variation in response format
 - Coefficient Alpha = .90
- Alcohol Abuse (CAGE)³
 - 4-item questionnaire assesses the presence of clinically significant alcohol use
 - Coefficient Alpha = .71
- Life Satisfaction⁴
 - 5-item measure of global life satisfaction
 - Coefficient Alpha = .92
- Postdeployment Family Functioning⁵
 - 12-item scale assessing the quality of postdeployment family relationships
 - Coefficient Alpha = .96

¹ Weathers, F., Litz, B., Herman, D., Huska, J., & Keane, T. M. (October 1993)

² Beck, Steer, Ball, Ciervo, & Kabat (1997)

³ Ewing (1984)

⁴ Diener, Emmons, Larsen, & Griffin (1985)

⁵ Vogt, Smith, King, King, Knight, & Vasterling (2013)

First set of Analyses

- Address frequency with which veterans report experiencing various family-related risk and resilience factors during deployment
- Item-level results for each of the three deployment-related family risk and resilience factors
 - Family Stressors: % of the sample that endorsed each stressor in scale
 - Family Concerns: % of sample that endorsed a moderate or high level of concern vs. not applicable, no concern, or modest level of concern
 - Social Support from Family & Friends: % of sample that indicated somewhat or strongly agree, somewhat or strongly disagree, or neither agree nor disagree



Reported Family Stressors During Deployment	Yes (%)	No (%)
A family member or other loved one had serious difficulty adjusting to my absence.	34	66
Someone close to me experienced a serious illness, injury, or mental health problem.	32	68
I had problems getting in touch with a family member or other loved one.	29	71
I learned that a loved one was doing things I disapproved of.	25	75
A family member or other loved one passed away	25	75
I had a major conflict with a family member or other loved one.	22	78
My family had money problems	21	79
My relationship with a spouse or significant other ended.	20	80
A spouse or significant other cheated on me.	16	85
A family member or other person I trusted wasted or mismanaged my money.	16	84
A family member got into trouble at home, at school, or in the community.	16	84
A spouse or significant other suspected that I had cheated on him/her.	14	86
A family member or other loved one participated in dangerous military duties.	12	88
My family's home and/or belongings were stolen	4	96

Note. Ns ranged from 1029 to 1036

Reported Family Concerns During Deployment	Moderate or High Level of Concern (%)	Not Applicable, Not at all, or a Little bit of Concern (%)
I was concerned about being unable to help my family if there was some kind of crisis or emergency	60	40
I was concerned about missing important family events at home such as birthdays, weddings, funerals, graduations, etc	58	42
I was concerned about the effect of the deployment on my relationship with my spouse or significant other.	44 (55)	66 (45)
I was concerned about the safety and well-being of my spouse or significant other.	41 (58)	59 (42)
I was concerned about my family's ability to cope with the stress of the deployment	43	57
I was concerned about my inability to directly manage or control family affairs.	37	63
I was concerned about missing out on my children's growth and development.	34 (80)	66 (20)
I was concerned about the safety and well-being on my child(ren).	30 (68)	70 (32)
I was concerned about the effect of deployment on my relationship with my child(ren).	25 (58)	75 (42)
I was concerned about my spouse or significant other's ability to manage the household	23 (24)	77 (76)
I was concerned about being cheated on by my spouse or significant other.	20 (23)	80 (77)
I was concerned about my family's financial situation	20	80
I was concerned about the care that my child(ren) or other dependents were receiving.	17 (36)	83 (64)

Note. Ns ranged from 1029 to 1036

Perceived Social Support from Family and Friends During Deployment	Somewhat or Strongly Agree (%)	Neither agree nor Disagree (%)	Somewhat or Strongly Disagree (%)
Family members and/or friends at home were sincerely interested in hearing what was going on with me.	86	9	5
People at home did things to show they cared about me.	84	9	7
I was happy with the amount of support I received from people at home.	82	10	8
Relatives or friends at home could be counted on to look out for the well-being of my family or other dependents (including pets).	80	12	8
Relatives or friends at home could be counted on to take care of my finances, property, or belongings if needed.	76	11	13
I was happy with the amount of communication I received from people at home.	76	10	14
I had family members or friends at home I could talk to when I had a problem.	76	12	12
I could count on family members or friends at home for good advice.	72	17	11

Note. Ns ranged from 1035 to 1041.

Second set of Analyses

- Purpose was to examine relationship between family factors and the postdeployment mental health and adjustment of OEF/OIF Veterans
- Bivariate correlations between family-related factors and indices of Veterans' postdeployment mental health and well-being
- Regression analyses that isolated unique associations between each family-related risk and resilience factor and postdeployment mental health and adjustment measures



Bivariate Correlations between Deployment Family-Related Factors and Indices of Postdeployment Mental Health and Adjustment

	PTSD severity	Depression Severity	Alcohol Abuse Severity	Life Satisfaction	Family Functioning
Family Stressors	.40*	.34*	.15*	-.30*	-.24*
Family Concerns	.29*	.24*	.07*	-.17*	-.01
Lack of Support from Family/Friends	.35*	.35*	.09*	-.44*	-.58*

Note. *p<.05; Ns ranged from 987 to 1037

Multiple Regressions Between Deployment Family-Related Factors and Postdeployment Mental Health and Adjustment

	B	SE B	β	t
PTSD Symptom Severity				
R = .47, R ² = .22, F(3,967) = 91.99*				
Family Stressors	1.63	.23	.25	7.15*
Family Concerns	.244	.06	.13	4.05*
Lack of Support from Family/Friends	.61	.08	.24	7.70*
Depression Symptom Severity				
R = .43, R ² = .18, F(3,971) = 71.82*				
Family Stressors	.60	.10	.21	5.97*
Family Concerns	.08	.03	.09	2.83*
Lack of Support from Family/Friends	.28	.04	.25	8.00*
Alcohol Abuse Severity				
R = .16, R ² = .03, F(3,992) = 8.42*				
Family Stressors	.04	.01	.14	3.56*
Family Concerns	.00	.00	.00	.01
Lack of Support from Family/Friends	.01	.00	.04	.22
Life Satisfaction				
R = .47, R ² = .22, F(3,982) = 90.06*				
Family Stressors	-.29	.07	-.14	-3.93*
Family Concerns	-.04	.02	-.06	-1.79
Lack of Support from Family/Friends	-.32	.03	-.38	-12.30*
Family Functioning				
R = .59, R ² = .35, F(3,980) = 173.95*				
Family Stressors	-.35	.13	-.08	-2.64*
Family Concerns	-.14	.04	-.11	-3.85*
Lack of Support from Family/Friends	-.94	.05	-.57	-20.21*

Discussion

- Findings suggest that OEF/OIF Veterans experience a variety of family-related stressors during deployment, including both objective events and subjective concerns
- Family stress appears to be primarily related to Servicemembers' actual or perceived inability to be a source of support for family members at home
 - Less concern about the extent to which family members are able to support them during deployment
- Subjective concerns about family-related events and circumstances appear to be larger issue than objective family stressors
 - May be a function of poor quality communication with family members during deployment
 - Stress of living and working in a war zone may contribute to heightened family concerns
- These concerns have the potential to interfere with Servicemember's performance during deployment and put them at risk for problems after deployment

Discussion (cont.)

- Findings indicated that family-related stressors demonstrate unique and important relationships with postdeployment mental health and adjustment of OEF/OIF Veterans
 - Importantly, effects are similar to what has been observed for combat-related stressors (e.g., Vogt, Smith et al., 2011)
- Stronger relationships observed for PTSD and depression than alcohol abuse
 - In contrast with findings for combat-related stressors, which show effects for all three mental health conditions, at least for men (Vogt, Vaughn et al., 2011)
- Particularly strong association observed between perceived lack of deployment social support and postdeployment family functioning
- Findings highlight potential benefit of predeployment interventions aimed at strengthening family relationships prior to deployment
 - Suggests particular need for improved communication during deployment

Limitations

- Cross-sectional study design
- Retrospective reporting of deployment experiences
- Self-report measures



Future Directions

- Examine gender differences in nature of family stressors and their impact on postdeployment health and adjustment
- Examine interplay between family stressors and combat-related stressors
- Gather collateral information from non-deployed family members to gain further insight into Servicemembers' experiences
- Given documented impact of deployment on family members ^{1 2}, examine impact of deployment risk and resilience factors on family members



¹ Mansfield, Kaufman, Marshall, Gaynes, Morrissey, & Engel (2010)

² Pincus, House, Christenson, & Adler (2001)

Thank you for your attention!

Dawne Vogt, PhD
Women's Health Sciences Division, NCPTSD
VA Boston Healthcare System
Dawne.Vogt@va.gov
(857) 364-5976

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