### EFFECTS OF COMBAT DEPLOYMENT AND SOLDIER DISTRESS ON PARTNER WELL-BEING IN NATIONAL GUARD FAMILIES

Christopher R. Erbes, PhD<sup>1,2</sup> Melissa A. Polusny, PhD<sup>1,2,3</sup>

<sup>1</sup>Minneapolis VA Health Care System

<sup>2</sup>University of Minnesota Medical School

<sup>3</sup>Center for Chronic Disease Outcomes Research



Readiness and Resilience in National Guard Soldiers Project

## Acknowledgments and Disclosure

- This research is funded by grants from the Department of Defense, the Military Family Research Institute, the Center for Chronic Disease Outcomes Research, and the Department of Veterans Affairs. The views expressed in this presentation are those of the authors and do not reflect the official policy or position of the funding agencies.
- The authors have no conflicts of interest or financial ties to disclose

### Overview

- The role of National Guard and Reserve components in OEF/OIF
- II. The challenges facing National Guard/Reserve families
- Findings from two studies on soldier and partner well-being before and after deployment
- IV. Implications and future directions

## National Guard and Reserve Component Service-Members

- Unprecedented deployments serving both in large numbers and repeated deployments
- Important differences from regular component servicemembers:
  - Demographics (older, married with children)
  - Civilian roles (leaving jobs and careers behind)
  - Training and deployment experiences
  - Re-deployment work challenges
  - Re-deployment social/unit support
  - Re-deployment access to health care
- Findings suggest NGR service members show greater increases in mental health distress over time than regular component service members (Milliken et al., 2007; Thomas et al., 2010)

### National Guard Families

- A key source of support when people confront extreme stressors
- May have different demographics, levels of support, expectations and readiness for deployment than regular component families
- Lapp and colleagues (2010) identified several key challenges:

• Pre-deployment: being "on hold"

During deployment: worry, waiting, single parenting, "going it alone," loneliness

Post-deployment: adjustment to changes in partners,

soldiers, and families

## What do we know about OEF/OIF families and service members?

- Like service members, military families can be remarkably resilient. However...
- Deployment has been linked to:
  - Increased mental health service utilization among partners (Mansfield et al., 2010)
  - Increased internalizing and externalizing disorders among children (Chartrand et al., 2008; Flake et al., 2009)
  - Increased reporting of child maltreatment (Gibbs et al., 2007)
- Soldier symptoms of PTSD are associated with:
  - Reduced relationship satisfaction as rated by both soldiers and partners (Allen et al., 2010; Nelson-Goff et al., 2007; Renshaw et al., 2008)
  - Poorer parenting practices as reported by soldiers (Gewirtz et al., 2010)

## Limitations of our current knowledge

 Often based upon only one source (e.g., service member report)

- Often retrospective and cross-sectional in nature
  - Confuses directions of causality
  - Can't rule out pre-existing concerns or problems

# The Readiness and Resilience in National Guard Soldiers (RINGS) Project

- Aims to identify protective and vulnerability factors for soldier and family mental health in National Guard troops following combat deployments.
- Works in close collaboration with Minnesota (and more recently Iowa) National Guards
- Focuses on longitudinal and multi-informant designs
- Two relevant RINGS studies discussed today:
  - Couples and PTSD Study
  - National Guard Veteran and Family Well-being Study (RINGS2 Pilot)

## Couples and PTSD Study

#### Aims:

- Examine the effect of couple interactions and functioning on course of PTSD symptoms.
- Examine the effect of PTSD symptoms on couple functioning over time.

#### Method:

- Design: Two-wave, mixed method study of 49 OIF National Guard veterans and their spouses.
- Data collection:
  - Self report symptom (PCL) measures
  - Self report relationship measures (DAS)
  - Clinical interviews of soldiers (CAPS)
  - Videotaped observation of couple interactions (not discussed).

## Couples and PTSD Study: Participants

#### Soldiers

- Mostly Caucasian (92%)
- Working full time (80%) or part time (10%)
- Mean age was 34.7
- 7 of 49 soldiers (14%) were diagnosed with PTSD

#### Partners

- Mostly Caucasian (96%)
- Working full (35%) or part-time (35%).
- Mean age was 33.6.

#### Relationship status:

- Average length of marriage was 9 years.
- 82% of couples were on their first marriage.

### Couples and PTSD Study: Results

- Multi-level Modeling (MLM) found that soldier
   Time 1 PTSD (PCL) predicted decreased
   relationship adjustment (DAS) at Time 2
   (r = -.30) for both soldiers and partners.
- Regression analysis found that Time 2 PTSD for soldiers was not predicted by Time 1 relationship adjustment as reported by soldiers  $(f^2 = .04)$  or partners  $(f^2 = .08; R^2 = .11, ns)$

## Couples and PTSD Study: Summary

- PTSD is associated with deteriorations in soldier and partner ratings of relationship adjustment over time
- Relationship adjustment was not predictive of changes in PTSD over time
- Services and support for family members of soldiers with PTSD symptoms can be important

## National Guard Veteran and Family Well-being Study (RINGS2 Pilot)

#### Aims:

- Identify soldier and family predictors of pre-deployment family well-being
- Determine the impact of family well-being on NG veteran's postdeployment mental health

#### • Mail survey methodology:

- Surveyed soldiers and partners 1 month prior to a combat deployment to Afghanistan (July, 2010)
- Soldiers and partners will complete additional surveys during (partners) and after (soldiers and partners) the deployment
- Measures: Soldier and partner distress (PTSD, depression, ETOH), stressors, prior deployment experience, communication, and relationship adjustment
- □ Time 1 (Pre-deployment) data collection complete

### RINGS2 Pilot Participants

623 soldiers participated, 288 nominated spouses to take part, 223 spouses did take part (response rate = 77%)

	Soldier	Partner
Gender	95% male	95% female
Race	96% Caucasian	93% Caucasian
Age	34.20 (SD = 8.63)	33.50 (SD = 9.45)
Education	46% AA or higher	49% AA or higher
Rank	<ul><li>17% Officers</li><li>1 % Warrant Officers</li><li>82% Enlisted</li></ul>	
Role in Upcoming Deployment	<ul><li>45% Combat Arms</li><li>31% Combat Support</li><li>24 % Service Support</li></ul>	
Prior Deployments	51% prior OEF/OIF deployment	

## RINGS2 Pilot Results: Soldier and Partner Distress

Measure	Soldier (Mean, SD, % Screening Positive)	Partner (Mean, SD, % Screening Positive)
PTSD (PCL)	24.31 (SD = 9.62, 3%)	26.56 (SD = 9.23, 2%)
Depression (PHQ-8)	2.60 (SD = 4.00, 5%)	4.61 (SD = 4.38, 15%)
Alcohol Problems (AUDIT)	4.88 (SD = 4.23, 15%)	2.58 (SD = 2.36, 4%)
Social Functioning (SFQ)	4.60(SD = 3.39, 9%)	5.97 (SD = 3.40, 17%)
Relationship Adjustment (DAS-7)	18.01 (SD = 2.79)	17.25 (SD = 2.89)

## RINGS 2 Pilot Results: Common Concerns

DURING MY SPOUSE/PARTNER'S DEPLOYMENT, I AM CONCERNED ABOUT...

- My spouse/partner's and/or children's safety and well-being (51%)
- My spouse/partner missing out on our children's growth and development (49%)
- My spouse/partner missing important events at home such as birthdays, etc. (43%)
- My spouse/partner's and/or children's mental health (41%)
- The effect of the deployment on my relationship with my spouse/partner (41%)
- The effect of the deployment on my spouse/partners' relationship with his/her children (36%)
- My spouse/partner's inability to help at home if there was some type of problem (32%)

## RINGS 2 Pilot Results: Correlates of Partner Depression and Concerns

	Partner Depression	Partner Concerns for Family Wellbeing
Partner:		
•Depression		.41 ***
•Concerns for Family Wellbeing	.41 ***	
•Social Functioning	.57 ***	.38 ***
•Relationship Adjustment	06	.01
•Children (yes/no)	.03	.20 **
Soldier:		
<ul><li>Prior OEF/OIF deployment</li></ul>	04	00
•Symptoms of PTSD	.18 **	.16 *
•Symptoms of Depression	.15 *	.28 ***

### RINGS2 Pilot Summary

- Partners, like soldiers themselves, are for the most part resilient to the stressors of deployment
- A substantial number report heightened levels of depression and impaired social functioning
- Partner concerns for family well-being are related to partner distress and social functioning as well as soldier distress
- Pre-deployment soldier distress is also related to partner distress

### Conclusions

- National Guard spouses/partners may be affected by the stresses of deployment and their soldier's mental health
- Symptoms of PTSD are associated with deterioration in marital relationships over time
- NG families may benefit from support and services before, during, and after combat deployments
- Support for NG families may be an important means of supporting their soldiers

### **Future Directions**

#### Couples and PTSD Study:

 Planned analyses of observed communication patterns as they relate to PTSD, couple functioning, and partner wellbeing over time.

#### ■ RINGS-2:

- For the Pilot, we will continue to follow-up with soldiers and partners over the course of the deployment
- The larger RINGS-2 study has been funded by VA HSR&D and will start data collection in January, 2011
- Both will allow investigation of how soldiers and partner distress and risk factors relate <u>over time</u>.

## ACKNOWLEDGEMENTS

#### **RINGS Collaborators**:

Melissa Polusny, PhD

Paul Arbisi, PhD ABPP

Paul Thuras, PhD

Maureen Murdoch, MD MPH

Abigail Gewirtz, PhD

Shelley MacDermid, PhD

David DeGarmo, PhD

Matthew Kaler, PhD

Laura Meis, PhD

#### MNARNG Collaborators:

COL Michael Rath, MD

LTC Barbara O'Reilly

Numerous research assistants

RINGS Military Advisory Panel

HSR&D Special Advisory Panel

## Thank you for your attention!

#### Contact Information

Email: Christopher.Erbes@va.gov