The Center for Research and Outreach

# **Putting Research to Work** for Military Families



## Association Between Long-Term Cognitive Decline in Vietnam Veterans With TBI and Caregiver Attachment Style

Guevara, A. B., Demonet, J. F., Polejaeva, E., Knutson, K. M., Wassermann, E. M., Krueger, F., & Grafman, J. (2015). Association between long-term cognitive decline in Vietnam veterans with TBI and caregiver attachment style. *Journal of Head Trauma Rehabilitation*, 30(1), E26-E33. doi:10.1097/HTR.00000000000000046

**SUMMARY:** Traumatic brain injury (TBI) is a major concern among military members, and it is important to understand how to best care for military members affected by a TBI. Forty male Vietnam Veterans with TBI and their caregivers participated in a study to examine the relationship between cognitive decline and caregiver attachment style (secure, preoccupied, fearful, or dismissing). Veterans whose caregivers were more fearfully attached experienced more cognitive decline than those whose caregivers were more securely attached.

### **KEY FINDINGS:**

- Veterans with a TBI and a caregiver high in fearful attachment experienced greater cognitive decline than those with a caregiver low in fearful attachment.
- Other caregiver attachment styles (e.g., secure, preoccupied, dismissing) were not related to levels of cognitive decline.
- Additional variables studied in caregivers (e.g., caregiver depression, level of conscientiousness) were not related to Veterans' cognitive decline.

### **IMPLICATIONS FOR PROGRAMS:**

Programs could:

- Offer classes for caregivers about how to create stimulating environments for Service Members with a TBI as a means of minimizing cognitive decline
- Create support groups for caregivers, affording them opportunities to exchange social support
- Maintain regular communication with spouses of Service members with a TBI, including via social media, to provide continuing education and support as needed

### **IMPLICATIONS FOR POLICIES:**

Policies could:

- Recommend integrating caregiver education of attachment styles as part of the support process for Service members managing a TBI
- Continue to support programs that allow for systemic holistic support of Service members who suffer from TBI
- Encourage the training of professionals who work with Service members with a TBI and their families on how to create an environment that is sufficiently stimulating

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#### **METHODS**

- Participating Vietnam Veterans were pulled from a large longitudinal study, the Vietnam Head Injury Study.
- Caregivers were given the Relationship Questionnaire to determine attachment style; the Armed Forces
  Qualification test, delivered preinjury and again in phase four (2008-2012), was used to establish a measure of
  cognitive decline.
- Veterans were split into two comparable groups (high vs. low fearfully attached caregiver), and cognitive decline was compared between groups.

### **PARTICIPANTS**

- This study included 40 male Veteran and female caregiver dyads recruited from the Vietnam Head Injury study, which began in 1967.
- All caregivers knew the Veterans before the TBI or within five years post-injury.
- Caregivers had an average age of 62 years and were primarily female spouses (90%).
- Veterans' average age was 63 years, and most did not experience loss of consciousness as part of their TBI.

### **LIMITATIONS**

- Caregivers self-reported attachment style, which may have introduced bias for reporting in a socially desirable way.
- Without a control group, the direction of effects cannot be inferred.
- The sample was small and fairly homogeneous, limiting the generalizability.

### **AVENUES FOR FUTURE RESEARCH**

Future research could:

- Investigate the relationship between attachment style and cognitive decline in a more diverse sample
- Examine caregiver attachment style and its impact on specific environmental conditions that can act as protective barriers against cognitive decline in Veterans with a TBI
- Replicate the study with a recent sample of Veterans who have served in OEF/OIF/OND

### ASSESSING RESEARCH THAT WORKS







For more information about the Assessing Research that Works rating scale visit: https://reachmilitaryfamilies.umn.edu/content/assessing-research-that-works