BACKGROUND

In the period from October 1, 2002 to May 31, 2016, over 1.2 million Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF)/Operation New Dawn (OND) veterans utilized VA healthcare services. Of these, 58.1% received a mental disorder diagnosis, the most frequent of which were PTSD, depressive disorders, and neurotic disorders, a decreasing order of frequency.

Previous research has suggested that for servicemembers, deployment length is associated with poorer physical and psychological health after deployment.12

Depression and PTSD symptoms may be worse after longer deployments for servicemembers, but this relationship may not apply for women.13 Research also suggests that longer deployments, as well as greater number of deployments, are associated with severity of sleep disturbance among servicemembers.14

Number of deployments has been linked to PTSD and depressive symptoms, though different studies have found different directions of association.15

Healthcare for veterans in the year following deployment may be protective against worsening general mental health or PTSD symptoms.16

THE CURRENT STUDY

Although there has been support in the literature for a connection between deployment characteristics (length and number) and severity of psychiatric concerns (particularly depression, PTSD, and sleep disturbance) for servicemembers, less is known about whether this relationship persists over a longer time period (e.g., for veterans who have separated from service).

The purpose of the current study was to examine whether deployment characteristics might be useful predictors of mental health disorder symptom severity in veterans newly enrolled in the VA. This information could improve the VA's screening procedures, or help identify who are good candidates for early contact with mental health providers.

Hypotheses

H1. Longer deployment length will be associated with higher symptom severity on each screening measure.

H2. Greater number of deployments will be associated with higher symptom severity on each screening measure.

H3. There will be an interaction between deployment length and gender, such that longer deployment length will be associated with higher symptom severity on each screening measure for men, but not for women.

H4. There will be an interaction between deployment length and number of deployments which influences symptom severity on each screening measure (non-directional).

METHODS

Participants

OEF/OIF/OND Veterans presenting for intake screening (n = 3,582; only individuals with complete data were included in analyses) were screened for mental health symptoms. Inclusion criteria were age ≥18, self-report of OEF/OIF veteran status, and consent to participate in the study. Exclusion criteria were active psychiatric treatment at the time of intake screening, and inability to provide informed consent.

OEF/OIF veterans also were offered same

Screening Measures (DV)

• Patient Health Questionnaire – 9 item form (PHQ-9) to assess depressive symptoms
• Generalized Anxiety Disorder Questionnaire – 7 item form (GAD-7) to assess anxiety symptoms
• PTSD Checklist – Civilians (PCL-C) to assess trauma-related symptoms
• Sleep Problem Questionnaire (SPQ) to assess subjective sleep disturbance

Data Analysis

• Central tendencies: included age, sex, ethnicity, marital status, residence, occupation, years of education, current school enrollment status, military branch, current active duty status, and military rank group
• Total deployment length was the total number of months deployed across all deployments.
• Deployment number was total number of deployments during military service.
• Hierarchical linear regression (one for each DV)
  - Step 1: control variables
  - Step 2: main effects (total deployment length, deployment number)
  - Step 3: interaction effect of gender*deployment length
  - Step 4: interaction effect of deployment length*deployment number

For all tests α = .05, and all tests were non-directional to allow for unexpected findings.

RESULTS

• For all DVs, there were significant increases in predictive ability of the regression models at Step 2 (α < .05) but not at Steps 3 or 4 (H3 not supported, H4 not supported).

• For all DVs, total deployment length was predictive of screening measure score, such that longer total deployment length was associated with a higher score (higher symptom severity) on each screening measure (all p < .05). There was no significant relationship between SPQ score and number of deployments (p > .05). (H2 not supported)

• Although several relationships between deployment characteristics and screening measures were statistically significant, effect sizes were very small (all par < .2). In all cases, deployment characteristics explained less than 1% of the variance in screening scores. Therefore, these results are not clinically significant.

DISCUSSION

• When considered in the context of previous research, results suggest that although there may be relationships between deployment length or number of deployments and psychiatric symptom severity among servicemembers, these relationships may not be as strong among veterans.

• Although deployment length does not appear to be strongly correlated to symptom severity among veterans presenting to this PDC, other metrics may be related to mental health symptoms. For example, research has found that longer-term PTSD symptom severity was associated with combat exposure and shorter time between deployments in veterans. Providers in integrated healthcare settings should continue to utilize screening questionnaires to assess mental health needs of veterans.

• This research could motivate future studies to determine whether these results generalize to other veteran populations, or whether other deployment characteristics hold more predictive value for mental health.

• Limitations of the current study include very high statistical power; uncertainty of the length of time since participation were last deployed, high variability in time since separation from service for participants, and use of self-reports of psychiatric symptom severity.

REFERENCES

7. OIE, N. Miller, Ph.D., Staff Psychologist*; Daniel Agliata, Ph.D.; & Ronald J. Girona, Ph.D., Chief of Psychology James A. Haley Veterans Hospital, Tampa, FL, USA

This material is the result of work supported with resources and the use of facilities at the James A. Haley Veterans Hospital. All opinions expressed herein are those of the authors and do not in any way represent the view of the Department of Veterans Affairs.