2,319 Army combat Veterans who had recently returned from deployment completed clinically-focused screenings on the mental health constructs of stressors, moderators, and strains. The results were used to assess the appropriateness of the Soldier Adaptation Model (SAM) as a tool to provide feedback to Army commanders regarding possible unit-level interventions for the wellbeing of their soldiers. The findings suggest that the SAM did not strengthen the macro level reporting of mental health problems, but found that risky behaviors partly explained the link between combat exposure and mental health concerns.

Key Findings:
- The post-deployment screening data did not adequately explain the observed associations between the variables, indicating poor model fit of the SAM.
- Alcohol use and reckless driving mediated the relationship between combat exposure and numerous mental health symptoms and disorders.
- Combat exposure was found to be the predominant stressor, and had an effect on post-deployment mental health symptoms as well as on alcohol use and reckless driving.
- Neither unit support (combined leadership effectiveness and unit morale) nor hours of sleep per night mediated the association between stressors and strains.

Implications for Programs:
- Providers working with military personnel could focus on assessments and interventions regarding specific risky behaviors (e.g. alcohol use and risky driving) in addition to general screening for and treatment of PTSD in general.
- Military personnel of all levels may benefit from education regarding the warning signs of mental health problems and how best to respond to those exhibiting risky behaviors.

Implications for Policies:
- Resources might be focused toward the assessment of risky behaviors for use by Commanders implementing unit-level interventions for the wellbeing of their soldiers.

Avenues for Future Research:
- Future research could replicate this study using similar samples but with measures that include multiple items for each scale, and more options in responding for each item.
- It might be useful to develop and test alternative methods of collecting, aggregating, and reporting actionable post-deployment mental health results to Commanders.
Soldiers completed post-deployment screening on an installation in Hawaii 90 to 180 days following their return from Iraq on the following health constructs:

1. Stress related to combat experience (i.e., relationship health, physical health, legal and financial problems),
2. Moderators (i.e., leadership effectiveness, unit/military morale, sexual assault, sleep), and
3. Strains (i.e., anger, anxiety, depression, PTSD, suicidal ideation, driving problems, wearing hearing protection).

Structural Equation Modeling used to evaluate suitability of SAM for explaining the associations among the constructs for stress, moderators, and strains.

2,319 Army combat brigade soldiers averaging 27 years old.

Average number of deployments was 1.9, median time since return was 4 months.

96% men; 66% White, 15% Hispanic, 10% Black, 5% Pacific Islander, 5% Asian, 3% Native American/Alaskan Native, 4% other.

60% married, 43% high school or equivalent education, 36% some college; Rank: 46% E1-E4, 46% E5-E9.

Self-report questionnaire items were designed for clinical purposes and chosen for brevity and clinical utility, not created for the purposes of research and may not be accurate assessments of the constructs being studied.

Indicators were measured with both single items and aggregates of several items, which may have artificially constrained variability and the associations that could be detected.

Low base rates caused significant skewing of some of the data and the latent variables may have been confounded by the large number of seemingly unrelated indicators used to define and measure the constructs.