

Health and Social Functioning: Examining Reciprocal Effects Among U.S. Deployed Veterans

Shelby Borowski, PhD, MPH¹, Laurel Copeland, PhD, MPH², Daniel Perkins, PhD³, Erin Finley, PhD, MPH⁴, & Dawne Vogt, PhD^{1,5}

INTRODUCTION

Deployed military service members may be exposed to combat trauma and possibly more vulnerable when they encounter subsequent stress exposure. One such experience is the transition to civilian life, a period that is known to bring stress and uncertainty for many individuals and which can lead to life-long difficulties if not navigated successfully.

The aim of the current study was to explore reciprocal associations between two domains of well-being, specifically health functioning and social functioning, during the transition to civilian life for U.S. deployed veterans.

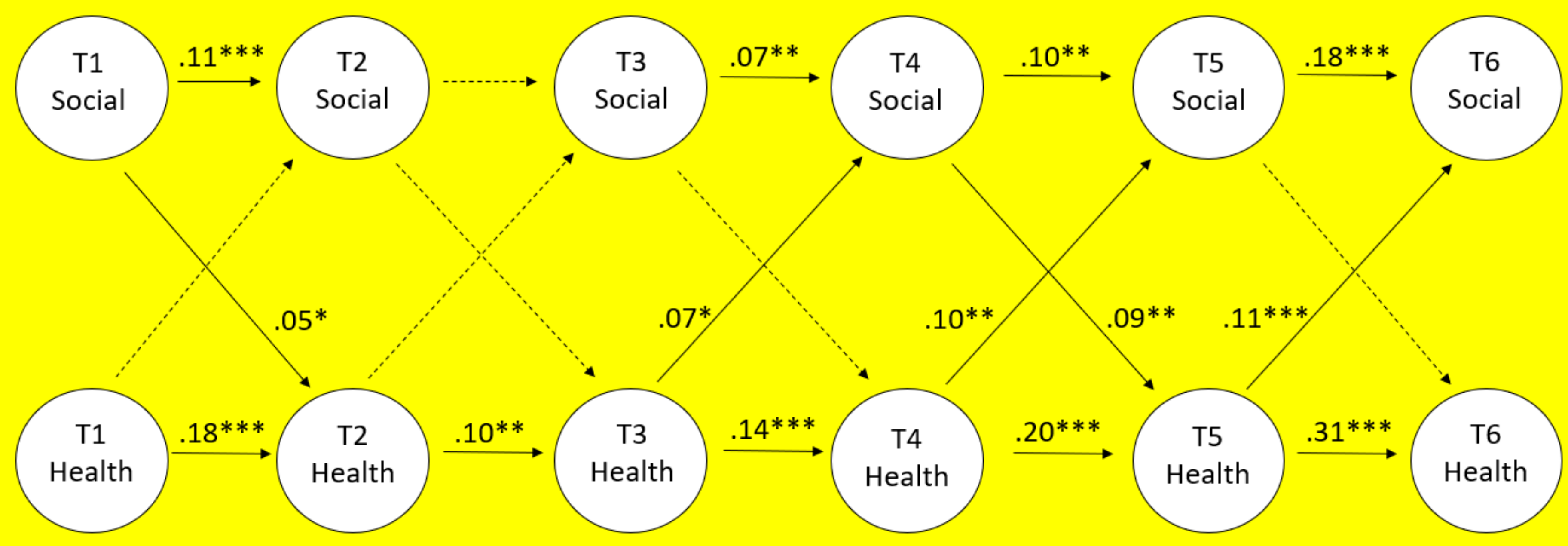
METHOD

Data were from the Veterans Metrics Initiative Study. Veterans were surveyed online within ~ 3 months of military separation and at 5 six-month intervals thereafter (T1-T6). The sample included 6,716 U.S. deployed veterans.

Health functioning and social functioning were measured using the Well-Being Inventory (Vogt et al., 2019). Items for each measure were averaged, with higher scores indicating better functioning. Possible scores ranged from 1 to 5.

A random intercept cross-lagged panel model was estimated in Mplus7.11.

For U.S. deployed veterans, health functioning and social functioning influence each other during the first three years after military separation.



Model fit: $\chi^2(37)=238.91$ ($p<.001$), RMSEA=.029, SRMR=.061, CFI=.993
 *** $p<.001$, ** $p<.01$, * $p<.05$, Non-significant paths are displayed as dashed lines
 Standardized estimates are displayed

Acknowledgements

Research was managed by the Henry M. Jackson Foundation and supported by a consortium of funders, including VA HSR&D. The full list of funders is on the project website linked to the poster.

¹ Women's Health Sciences Division, National Center for PTSD, VA Boston Healthcare System
² VA Central Western Massachusetts Healthcare System
³ Clearinghouse for Military Family Readiness at the Pennsylvania State University
⁴ Veterans Evidence-Based Research Dissemination and Implementation Center, VA South Texas Health Care System
⁵ Boston University School of Medicine



RESULTS

Most veterans were male ($n=5,718$; 85%), White ($n=5,189$; 77%), and not Hispanic/Latinx ($n=5,857$; 87%). The average age of veterans at T1 was 36.7 ($SD=9.2$) years. Veterans were deployed an average of 2.7 ($SD=2.0$) times.

Across the six time points, the average health functioning score was 3.95 ($SD=.56$). From T1-T6, average scores ranged from 3.90 to 4.01. The average social functioning score was 3.94 ($SD=.78$) and ranged from 3.87 to 3.99.

Between-Person Level

Between-person effects represent time-invariant differences between individuals. Veterans who had higher health functioning scores also had higher social functioning scores across the six time points ($b=.67$, $p<.001$).

Within-Person Level

Within-person effects represent deviations in scores from individuals' expected scores at each time point.

Autoregressive effects: Health functioning at each time point positively predicted health functioning at the next time point. Findings were similar for social functioning with the exception of T2 to T3.

Cross-lagged effects: Better social functioning predicted better health functioning from T1 to T2 and T4 to T5. Better health functioning predicted better social functioning from T3 to T4, T4 to T5, and T5 to T6.

DISCUSSION

Improvements in one domain beget improvements in the other domain, leading to positive gains over time.

Results highlight the value of early intervention to bolster veteran's health and social functioning as they transition to civilian life.