Does marriage enhance resilience? Lower levels of inflammation in married Iraq and Afghanistan veterans

Mariya Smirnova, Thomas C. Neylan, Daniel Bertenthal, Paige Tripp & Aoife O’Donovan

San Francisco VA Medical Center &
University of California, San Francisco

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Background
Higher quality marriages are linked to greater satisfaction with life, lower stress, and better mental health. Meanwhile, in divorced, widowed and separated individuals, there is an increase in risk for coronary events and early mortality. Accumulating evidence indicates that elevated inflammation may contribute to the risk for both mental and physical health problems following divorce or death of a spouse. Marital problems and divorce as well as loss of a spouse are more common in military veterans than in other groups. Nonetheless, little is known about the connection between marital status and inflammation in military veterans.

Method
Our sample included 16,587 Iraq and Afghanistan veterans (15% women, M age=34.5±8.7 years) who entered the Veterans Affairs (VA) healthcare system between 2005 and 2012 and who had levels of the general systemic inflammatory marker high sensitivity C-reactive protein (hsCRP) measured for any reason. Sociodemographic and clinical data were derived from VA administrative databases. Generalized linear models were used to ascertain differences among groups in log-transformed hsCRP. All models were adjusted for age, race, education, body mass index, single versus multiple deployments, psychiatric diagnoses, and physical health as indexed by the Charlson Comorbidity Index.

Results
Most of the veterans with hsCRP measures had a psychiatric diagnosis (n = 13,023; 79%), and being divorced or widowed was more common in veterans with psychiatric diagnoses (6.4%) compared to those with no psychiatric diagnoses (5%). Divorced or widowed veterans had significantly higher levels of hsCRP than those who were married or never married (β = .21 [.07, .35], p = .004). Breaking the sample down into male and female veterans, divorced or widowed status was significantly associated with higher hsCRP in men (β = .21 [.05, .38], p = .009) and not women (β = .16 [-.13, .44], p = .27).

Conclusion
Our results showed elevated inflammation in divorced and widowed male military veterans. Divorce and loss of a spouse are likely to increase levels of psychological stress and may increase risk for both mental and physical health problems. Previous research indicates that being married has greater benefits for men’s compared to female’s health. Interventions targeted at increasing marital quality to keep couples together, and to increase marital satisfaction could be an important protective factor against elevated inflammation, particularly for male veterans.