

## Battlefield camaraderie yields long-term dividends for veterans, study finds

February 18 2010

---

The benefits of wartime camaraderie extend far beyond the battlefield, a new UCLA study of U.S. Civil War veterans suggests.

Veterans who served in military units characterized by a strong esprit de corps were much less likely decades later to die of a stroke or heart condition than veterans from less cohesive companies, two UCLA economists have found.

"On the battlefield, you'd expect your buddy to have your back," said Dora Kosta, the study's lead author and a UCLA professor of economics. "But the fact that camaraderie provides a protective effect that endures long after the war has ended is a new and surprising finding."

"We're not sure how it works, but somehow, being armed with close [social bonds](#) in the extremely [stressful situation](#) of battlefield combat has a protective effect that continues long after the fighting has ended," said Matthew Kahn, the study's co-author and a fellow UCLA economics professor. "Men who went into battle with this emotional armor were much less likely in their late 50s and early 60s to fall victim to stress-related illnesses."

The study, which tracked the veterans for up to 68 years, constitutes the first long-term look at the effect of unit cohesion on soldiers' mortality and health at older ages. It is also one of the longest-running studies of the effect of human social bonds on extreme stress. The findings appear in the latest issue of the peer-reviewed scholarly journal *Demography*,

which is expected to ship Feb. 19 to subscribers.

Drawing on data amassed by the University of Chicago's Center for Population Economics, Costa and Kahn looked at records for more than 35,000 Union veterans who served between 1861 and 1865 in 303 infantry companies. The economists first determined how many men each company lost, reasoning that the companies with the most losses also experienced the most stress.

They also figured out whether the veterans served with men of shared ethnicity, occupation and other commonalities. Previous research has shown that soldiers who fought in companies with men who shared similar characteristics — a common race, religion, ethnicity, socioeconomic status or hometown — displayed a higher degree of loyalty to one another than their counterparts in more diverse companies.

The researchers then examined meticulously detailed medical records kept by the Pension Bureau — the precursor to today's Department of Veterans Affairs — for the purposes of ascertaining whether the veterans were eligible for age- and disability-related benefits as they aged. In particular, Costa and Kahn looked at whether the men experienced medical conditions with well-documented links to stress, such as arteriosclerosis, heart attacks and strokes.

Finally, they scoured U.S. Census records from 1850 to 1930 for details of the veterans' lives as they unfolded. The researchers were especially interested in the veterans' economic situation and marital status, two variables that have been shown to have a significant effect on an individual's health.

Even after adjusting for these factors, Costa and Kahn found that veterans from companies lacking in cohesion were six times more likely than peers from cohesive companies to suffer from arteriolosclerosis or

to have heart attacks or strokes by their late 50s or early 60s.

When translated into total lifespan, the toll was considerable. Of the veterans who died from heart disease or stroke, men who served in an uncohesive company lived one year and four months less than men from a cohesive company.

Costa and Kahn admit they're not sure of the mechanism behind camaraderie's long-term protective influence, but they suspect social bonds somehow moderate stress hormones released either during or after intense battles.

"It may be that you don't have the same release of stress hormones when you go into battle with comrades on whom you feel like you can depend," Costa said.

The study quotes from the journal of a Civil War captain whose personal experiences seem to reinforce this view: "I have always found comforting in battle the companionship of a friend, one in whom you had confidence, one you felt assured would stand by you until the last," Frank Hollinger wrote.

Having a friendly shoulder to cry on at the end of the day also may help dissipate stress hormones, Costa said.

"If you actually see people being killed, your comrade can say, 'No, no. It's all right. It's not your fault.' "

Also unclear is whether veterans from less cohesive units sustained damage that led to stress-related conditions during the war itself or in the years that followed the conflict.

"One theory is that release of hormones in battle may cause systemic

inflammation that later in life leads to heart disease and other potentially fatal diseases," Kahn said.

Alternatively, the absence of camaraderie may have made veterans more likely later on to relive battle trauma in the form of post-traumatic stress syndrome.

"Every time a veteran experiences a PTSD reaction, stress hormones are released again," Costa said. "So PTSD leads to repeated exposure to hormones that may over time lead to damaging inflammation."

The latter theory, the researchers admit, is just conjecture. The Pension Bureau did not track PTSD symptoms because the illness was not accepted into diagnostic literature until more than a century later. Neither did the bureau track symptoms that could be ascribed, with the benefit of hindsight, to PTSD. Nonetheless, the researchers view the data as a goldmine.

"Many studies have investigated how social networks combat the effects of stress in people," Costa said. "But they've tended to focus on stress generated in a laboratory setting, where researchers naturally would be prevented from inflicting the high levels experienced on a battlefield. The beauty of the Civil War data is it lets us get as close to a randomized, experimental study of [extreme stress](#) and social networks as you can ethically get."

The study also takes advantage of record-keeping quirks unique to the era. To ensure delivery of the country's earliest comprehensive benefits for veterans, the Pension Bureau tracked the [veterans](#) to their death. Because neither the Pension Bureau's records nor corresponding U.S. Census data is protected by the kinds of privacy safeguards that U.S. citizens now enjoy, the researchers were able to reconstruct a vivid picture of the types of conditions under which the men served and how

they fared as they aged.

Moreover, Civil War soldiers who joined one company stayed with that company for their entire tour of duty. Only in very rare cases did companies add new soldiers as old ones were injured or killed. This distinction facilitated tracking the effects of cohesion. By contrast, soldiers repeatedly cycled in and out of companies during World War II and the Korean and Vietnam wars, infinitely complicating such research.

Even though the findings may date from a 145-year-old conflict, the researchers hope they will shed light on contemporary problems.

"Now that we're in the middle of two long-term wars, it's really important to understand what effect combat has on men's long-term health," Costa said. "If we can find strategies for minimizing the long-term toll of the experience on these brave people, we really need to do so."

Provided by University of California - Los Angeles

Citation: Battlefield camaraderie yields long-term dividends for veterans, study finds (2010, February 18) retrieved 8 May 2024 from <https://phys.org/news/2010-02-battlefield-camaraderie-yields-long-term-dividends.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.