

A Non-Profit Case Management Model: Impact on Severely Wounded, Ill, and Injured Service Members and Veteran Well-Being

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ABSTRACT

Introduction:

Long-term care for our nation's severely wounded, ill, and injured service members and veterans (SM/Vs) and their families presents formidable challenges. Besides physical trauma, conditions like traumatic brain injury and post-traumatic stress disorder require sustained, lifelong support. While federal systems provide acute and rehabilitative care, gaps may emerge in managing the chronic and social complexities of recovery. Semper Fi & America's Fund (The Fund), a 501(c)(3) non-profit organization, developed a unique model of lifelong case management and supportive services that provides a continuous, personal relationship to severely injured SM/V. Evidence of The Fund's positive impact on SM/V well-being has so far been anecdotal; this study sought to examine it objectively.

Materials and Methods:

This retrospective cohort study used a Fund-provided deidentified, binomial data set from 289,160 case manager notes covering 2 decades associated with 18,425 severely wounded, ill, and injured Operation Enduring Freedom and Operation Iraqi Freedom SM/Vs. The Fund did not provide the actual notes; but rather provided text-mined anonymized data in a binary format for the presence of 4 well-being challenges: anxiety, suicidal ideation, legal issues, and substance use. The SM/Vs were divided into groups based on when they joined The Fund. Unadjusted odds ratios were used to assess the effect of length of exposure to the case management model on each of the challenges.

Results:

The SM/Vs with the least amount of exposure to the case management model were statistically ($P < .0001$) more likely to have each of the challenges documented in their case manager notes: anxiety (OR 5.64-13.22); suicidal ideation (OR 2.84-4.84); legal issues (OR 3.10-5.10); and substance use (OR 5.19-7.46).

Conclusion:

This is the first study reported in the literature that used a large 20-year database of case manager data. The results suggest that a proactive, relationship-based, and lifelong case management model may improve well-being outcomes for severely wounded, ill, and injured SM/Vs. Specifically, longer exposure to The Fund's model may improve SM/V well-being for each of the studied challenges. Future research and data analysis could help government and nonprofit agencies best allocate resources to meet the needs of severely wounded, ill, and injured SM/Vs in future conflicts.

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INTRODUCTION

Beyond the visible wounds of war, many service members, veterans (SM/V), and their families grapple with long-term effects of combat injuries and trauma that diminish well-being and quality of life (QOL).^{1,2} These impacts can present physical, mental health, and financial challenges to SM/Vs and their families. Severe visible injuries (e.g., amputation and burns)^{3,4} and non-visible conditions such as traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD) may require sustained, lifelong support.^{5,6} Federal health systems provide acute and rehabilitative care, but gaps may emerge in managing the chronic and social complexities of recovery.^{7,8} Additionally, transition from active service is often associated with significant disruption to social support, identity, and functioning.^{9,10} By the time these social consequences manifest, barriers

to care may already be in place. For veterans who have been out of the system for years, reestablishing with a clinician or case manager could be a substantial obstacle. Access to care may vary by location, leaving many SM/Vs without timely support precisely when they need it most.^{11,12} Nonprofit organizations often step in to address these gaps, focusing on the social and functional determinants of well-being that fall outside the scope of traditional federal care.^{13,14}

Among these gaps, access to sustained case management remains a critical need.^{8,13} Semper Fi & America's Fund (referred to as The Fund) addresses this need through a novel nonprofit case management-centered model. As a 501(c)(3) nonprofit established in 2004, The Fund provides long-term case management and supportive services to severely wounded, ill, and injured SM/Vs. Since its inception, The Fund has served over 38,000 severely wounded, ill, and injured SM/Vs, from all branches of the U.S. Armed forces, their families, and others.¹⁵ While most of those served by the Fund are post-9/11 SM/Vs and families, Vietnam veterans, those injured in training accidents, and civilians (e.g., 2013 Boston Marathon bombing) also receive support.

The Fund employs a longitudinal case manager-centered support model that provides a sustained, personal relationship for severely wounded, ill, and injured SM/Vs. The case managers are non-clinical employees of The Fund who work from home. They proactively engage with assigned SM/Vs based on acuity of services needed and are also available on an as-needed basis via phone call, text message, and e-mail.

Most case managers are military spouses or dependents who bring diverse expertise from fields like education, nursing, law, and accounting. They begin as volunteers under the supervision of established case managers, working with basic cases and steadily advance to handling more complex ones. The Fund then hires case managers from this pool of trained volunteers to provide continuous, long-term support to SM/Vs throughout their time with the Fund.

In addition to a 1:1 long-term relationship with a case manager, the model includes: visiting nurses for the most critically wounded, ill, and injured; veteran-led peer-to-peer support; education and transition assistance programs; financial assistance; housing and adaptive equipment assistance; PTSD support; and coordination of Veterans Affairs (VA), Department of War (DoW), and local support.¹⁵

SM/V eligibility to join The Fund is determined through an initial intake conducted by a case manager, during which injury severity is assessed and documented by an employed case manager. Severe visible injuries include amputation, paralysis, severe burns, and blindness. Initial intake assesses the severity of the SM/V's injury. Eligibility for non-visible injuries (TBI/PTSD) is generally based on a VA disability rating of at least 70%.¹⁶ Case managers record demographic details for each SM/V—including age, sex, and branch of service—utilizing self-reported data and DD Form 214 (Certificate of Release or Discharge from Active Duty). The

same case manager then maintains a sustained, supportive 1:1 relationship for as long as the SM/V remains with The Fund.

Once a SM/V is accepted, a record is established in a secure HIPAA-compliant database managed by The Fund. Case managers document their interactions through free-form notes in their own words, without drop-down menus or a standard lexicon.¹⁶

Subsequent free-form notes summarize case manager-service member conversations (typically by phone), documenting reported challenges, providing justification for financial assistance, and coordinating support within The Fund, VA assistance, local resources, and referrals to other nonprofit organizations. Notably, case managers were unaware that their documentation would be analyzed for this research.

As a nonprofit entity utilizing non-clinical case managers, The Fund did not utilize or have access to formal medical records from systems such as Armed Forces Health Longitudinal Technology Application (AHLTA), Essentris, MHS Genesis, or the VA's Computerized Patient Record System (CPRS). The case managers developed their own injury codes for internal use by The Fund. The 26 injury codes are based not on ICD-9/10 or clinical records, but on visualization of injuries, VA disability ratings, and their interviews. The Fund organized their codes into 2 categories, visible and non-visible injuries, allowing The Fund to track types of injuries individually and collectively.

Since its inception, The Fund has collected innumerable anecdotes of its positive impact on SM/Vs and families. The Fund wanted objective evidence of whether its case manager-centered model is effective and asked Madigan Army Medical Center's Leader and Faculty Development Fellowship if it might be interested in conducting independent research to assess The Fund's impact. This qualitative study attempts to determine whether there is objective evidence of this positive impact in the "perceived social functioning, mental health, and general well-being" of severely wounded, ill, and injured SM/Vs.^{17,18} This initial, independent assessment of a case manager-centered model has 2 study aims: (1) could well-being be assessed using The Fund's case manager notes of SM/Vs injured during Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF)? If so, (2) determine if inclusion in and long-term exposure with The Fund may improve well-being through sustained relationships with a case manager-based support system.

MATERIALS AND METHODS

Study Design

This qualitative study utilized a retrospective cohort of 18,245 of The Fund's severely wounded, ill, or injured OEF/OIF SM/Vs wounded between 2003 and 2014. The Madigan Army Medical Center Human Research Protections Office

(HRPO) institutional review board determined the study protocol (no. 225018) did not involve human subjects. Informed consent was waived as the data were deidentified.

The researchers did not have access to the SM/V's individual case manager notes. Rather, the study used Fund-provided text-mined binary data from the SM/Vs' 289,160 anonymized case manager notes spanning 20 years, from May 21, 2004 to September 30, 2024. The Fund provided the research team deidentified SM/V demographic data (age, sex, branch of service, campaign/operation association), injury date and type (visible vs. non-visible).

The Fund provided text-mined case manager notes in a deidentified, binary data format ("yes/no" or "1/0") for the presence of words associated with 4 well-being challenges: anxiety, suicidal ideation, legal issues, and substance use. These challenges are frequently reported in the literature regarding social determinants of health among civilian and veteran populations.^{9,14,17-21} A list of words associated with each well-being challenge is included in the appendix (see Table S1). The deidentified data were securely transferred to the investigators and included a code key to explain the variable inputs.

Two questions were asked: (1) Could OEF/OIF SM/Vs well-being be assessed using The Fund's case manager notes and, if so, (2) Does long term exposure to a case manager-based system of support impact the "perceived social functioning, mental health, and general well-being"? Our

hypothesis was that exposure to a case manager-centered model positively impacts well-being.

Of the 33,819 SM/Vs in The Fund-provided data, this study limited SM/Vs to those who sustained a combat injury in OEF/OIF (2003-2014). Exclusion criteria also included SM/Vs with incomplete data and family members (see Figure S1). This resulted in a study cohort of 18,245 SM/Vs (see Table 1). Demographic data for 18,245 SM/Vs and binary deidentified, text-mined data from the 289,160-case manager notes were analyzed. Statistical analysis was performed using SPSS Version 24.0 (2016).

To address Question (1), the 20 years of deidentified binary data from the 289,160 case manager notes of the 18,245 OEF/OIF SM/Vs injured during the timeframe of 2004-2014 were assessed for the presence of 4 selected challenges: anxiety, suicidal ideation, legal issues, and substance use. Descriptive analysis was used, and results reported in frequencies.

For Question (2), we used a 5-step process
Step 1: Since our hypothesis was that exposure to a case manager-centered model positively impacts well-being, the 18,245 SM/Vs injured between 2003 and 2014 were divided into 4 groups based on when they joined The Fund: approximately 15-20 years, 10-15 years, 5-10 years, and less than 3 years of exposure to the case manager-centered model. Group 1: 2004-2010 included 3,162 SM/Vs; Group 2: 2011-2015 included 6,917 SM/Vs; Group 3: 2016-2020 included 5,478 SM/Vs; and Group 4: 2021-2024 included 2,687 SM/Vs.

Table 1. Subject Demographics, Overall and by Groups

	Overall	Group 1 2004-2010	Group 2 2011-2015	Group 3 2016-2020	Group 4 2021-2024
n	18,245	3,162	6,917	5,478	2,687
Sex					
Female (%)	936 (5.1)	71 (2.2)	321 (4.6)	304 (5.5)	240 (8.9)
Male (%)	17,301 (94.8)	3,084 (97.5)	6,595 (95.3)	5,175 (94.5)	2,447 (91.1)
Unknown (%)	8 (0.0)	7 (3.8)	1 (0.0)	0 (0.0)	0 (0.0)
Branch					
Air Force (%)	280 (1.5)	2 (0.1)	49 (0.7)	122 (2.4)	107 (4.0)
Army (%)	3,647 (20.0)	84 (2.7)	679 (9.8)	1,708 (31.2)	1,176 (43.8)
Army Reserves/NG (%)	226 (1.2)	2 (0.1)	24 (0.3)	143 (2.6)	57 (2.1)
Coast Guard (%)	10 (0.1)	0 (0.0)	1 (0.0)	4 (0.1)	5 (0.2)
Marines (%)	12,279 (67.3)	2,799 (88.5)	5,408 (78.2)	2,935 (53.6)	1,137 (42.3)
Navy (%)	1,801 (9.9)	274 (8.7)	755 (10.9)	567 (10.3)	205 (7.6)
Other (%)	2 (0.0)	1 (0.0)	1 (0.0)	0 (0.0)	1 (0.0)
Area of operation					
Both (%)	3,822 (20.9)	153 (4.8)	1,328 (19.2)	1,571 (27.7)	770 (28.7)
OEF (%)	5,405 (29.6)	570 (18.0)	2,769 (40.0)	1,398 (25.5)	668 (24.7)
OIF (%)	9,018 (49.4)	2,439 (77.1)	2,820 (40.8)	2,510 (45.8)	1,249 (46.5)
Injury type					
Both (%)	4,953 (27.1)	1,064 (33.6)	1,969 (28.5)	1,454 (26.5)	466 (17.3)
Non-visible (%)	11,315 (62.0)	1,190 (37.6)	4,228 (61.1)	3,769 (68.8)	2,128 (79.2)
Visible (%)	1,977 (10.8)	908 (28.7)	720 (10.4)	256 (4.7)	93 (3.5)

Step 2: Determine the prevalence of the 4 challenges in each group since they joined The Fund. Assess what percentage of each of the 4 challenges were documented in the case manager notes.

Step 3: To assess the prevalence of the 4 designated challenges during the most recent timeframe, the study used case manager notes from 2021 to 2024 as a benchmark. Group 4—comprising participants with the least exposure to the case manager-centered model—was established as the “control” to measure the relative and longitudinal effectiveness of the case management model.

Step 4: The prevalence of each challenge within the control (Group 4) was then compared against the rates observed in Groups 1, 2, and 3. This comparison emphasizes the longitudinal nature of the relationship, a cornerstone of the case manager-centered model, allowing for an assessment of whether sustained engagement enhances the model’s overall effectiveness.

Step 5: Test the hypothesis: using unadjusted odds ratios with a *P* value set at $\leq .05$, Are the differences statistically significant? Will each of the well-being challenges be documented less often in the notes of SM/Vs who have had a longer relationship with the case manager-centered model?

RESULTS

Question 1

More than 50% of the case manager notes included at least 1 of the 4 well-being challenges. For the 18,245 SM/Vs, the prevalence of the well-being challenges documented in the case manager notes was: anxiety 9,121 (50%), suicidal ideation 1,543 (8.5%), legal issues 1,533 (8.4%), and substance use 2,508 (13.7%).

Question 2

The results of the five-step process

For anxiety, SM/Vs in Group 4 (least exposure to the case manager-centered model) were 13.22 times more likely to have anxiety documented during the most recent 3 years of case manager notes than Group 1 (OR 13.22, 95% CI, 11.20-15.60); 8.54 times more likely than those in Group 2 (OR 8.54, 95% CI, 7.63-9.55); and 5.64 times more likely than Group 3 (OR 5.64, 95% CI, 5.05-6.29) (see Table 2).

For suicidal ideation, SM/Vs in Group 4 (least exposure to the case manager-centered model) were 4.84 times more likely to have suicidal ideation documented in their most recent 3 years of notes than Group 1 (OR 4.84, 95% CI, 3.39-6.90); 3.67 times more likely than Group 2 (OR 3.67, 95% CI, 2.86-4.70); and 2.84 times more likely than Group 3 (OR 2.84, 95% CI, 2.22-3.64) (see Table 2).

For legal issues, Group 4 (least exposure to the case manager-centered model) was 5.10 times more likely to have legal issues documented in their most recent 3 years of case

Table 2. Using Group 4, the Group with the Least Amount of Exposure to the Case Manager Model as the Control, what is the Likelihood that Group 1 (~20 Years Exposure), Group 2 (~15 Years Exposure), Group 3 (~10 Years Exposure) Will Have Well-Being Challenges Documented in Their Most Recent (2021-2024) Case Management Notes. Group 4 is 13.22 More Likely to Have Anxiety Documented in the Case Manager Notes Than group 1

Well-being challenge	OR	95% CI	P-value
Anxiety			
Group 1: 2004-2010	13.22	(11.204-15.599)	<.0001
Group 2: 2011-2015	8.54	(7.6304-9.5482)	<.0001
Group 3: 2016-2020	5.64	(5.0517-6.2875)	<.0001
Suicidal ideation			
Group 1: 2004-2010	4.84	(3.3886-6.8987)	<.0001
Group 2: 2011-2015	3.67	(2.8629-4.7010)	<.0001
Group 3: 2016-2020	2.84	(2.2195-3.6379)	<.0001
Legal issues			
Group 1: 2004-2010	5.10	(3.8695-6.7330)	<.0001
Group 2: 2011-2015	4.55	(3.7179-5.5764)	<.0001
Group 3: 2016-2020	3.10	(2.5507-3.7683)	<.0001
Substance use			
Group 1: 2004-2010	7.46	(5.8434-9.5289)	<.0001
Group 2: 2011-2015	6.78	(5.6874-8.0926)	<.0001
Group 3: 2016-2020	5.19	(4.3581-6.1886)	<.0001

manager notes than Group 1 (OR 5.10, 95% CI, 3.87-6.73); 4.55 times more likely than Group 2 (OR 4.55, 95% CI, 3.72-5.58); and 3.10 times more likely than Group 3 (OR 3.10, 95% CI, 2.55-3.77) (see Table 2).

For substance use, Group 4 (least exposure to the case manager-centered model) was 7.46 times more likely to have substance use documented in their most recent 3 years of case manager notes than Group 1 (OR 7.46, 95% CI, 5.84-9.52); 6.78 times more likely than Group 2 (OR 6.78, 95% CI, 5.69-8.09); and 5.19 times more likely than Group 3 (OR 5.19, 95% CI, 4.36-6.19) (see Table 2).

There were notable trends found in the characteristics of the 4 groups. Visible injuries declined across successive groups, from 908 service members (28.7%) in Group 1 to 93 (3.5%) in Group 4, while non-visible injuries increased correspondingly, from 1,190 service members (37.6%) in Group 1 to 2,128 (79.2%) in Group 4. The Fund’s earliest cohort was predominantly Marines (88.5%); this proportion shifted with each successive group. By Group 4, Army service members comprised the majority at 43.8%, compared with 42.3% Marines. The proportion of female service members also increased across groups, from 2.2% in Group 1 to 8.9% in Group 4 (see Table 1).

DISCUSSION

This retrospective cohort study is a novel approach to assess the efficacy of an intervention by interpreting data extracted from case manager notes; it lends empirical weight to what were once only anecdotal observations. Using deidentified, binary data derived from 289,160 case manager notes of

18,245 SM/Vs spanning 2 decades, our study suggests: (1) free-form case manager documentation can be used to assess well-being; and (2) sustained engagement with The Fund's case manager-centered model may be associated with improved long-term outcomes. The longer a SM/V had been engaged with The Fund's longitudinal case management model, the less likely they were to have anxiety, suicidal ideation, legal issues, and substance use documented in their case manager notes.

Question (1). Our research suggests the notes of case managers who have a sustained relationship with their SM/V could be used to assess SM/V well-being. Over half of our cohort had at least 1 of the 4 challenges documented by their case manager (see Figure 1).

Our literature review identified 5 articles that assessed the 4 studied challenges.¹⁷⁻²¹ Comparable rates for suicidal ideation (8.5% vs 7.3%)¹⁹ and substance use (13.7% vs 14.0%) were reported.¹⁷ The prevalence of anxiety in the case manager notes of our study population (50.0%) was higher than that seen in the National Health and Nutrition Examination Survey (NHANES) (16.3%).¹⁸ The prevalence of legal issues in our study (8.4%) was higher than in the VA's retrospective cohort study (0.7%).^{20,21} Perhaps an SM/V's sustained, long-term relationship creates conditions in which they are more likely to share such issues with their case manager than via a survey.

Question (2). Our research suggests long-term exposure to a case manager-centered model may improve SM/V well-being. As shown in Figure 2 and Table 2, those SM/Vs who had a longer than 3-year sustained relationship with The Fund's support model were statistically ($P < .0001$) less likely to have anxiety, suicidal ideation, legal issues, and

substance use documented in their case manager notes. Although a retrospective cohort study using odds ratios has inherent limitations, this very strong statistical significance suggests the model, as documented in free-form case manager notes, may positively impact the well-being of severely wounded, ill, and injured OEF/OIF SM/Vs if sustained for more than 3 years. The long-term, supportive relationship with their case manager may be central to the success of this model.

All comparisons were statistically significant ($P < .0001$). The dose-response gradient observed across groups—with decreasing unadjusted odds ratios as time with the case manager-centered model increases—provides further support for a potential protective association between duration of exposure to the case manager-centered model and reduced documentation of well-being challenges.

A strength of the study was that The Fund's case managers are not nurse case managers, but are military spouses or dependents with varied professional, non-clinical backgrounds. Their familiarity with the military lifestyle, culture, and acronyms positions them well to establish long-term relationships with SM/Vs and to discuss social determinants of health factors impacting QOL, such as housing, employment, and food security.^{14,21} Another strength of this study is the naturalistic quality of the data. Case managers were unaware that their notes were being reviewed for research purposes and were given no guidance

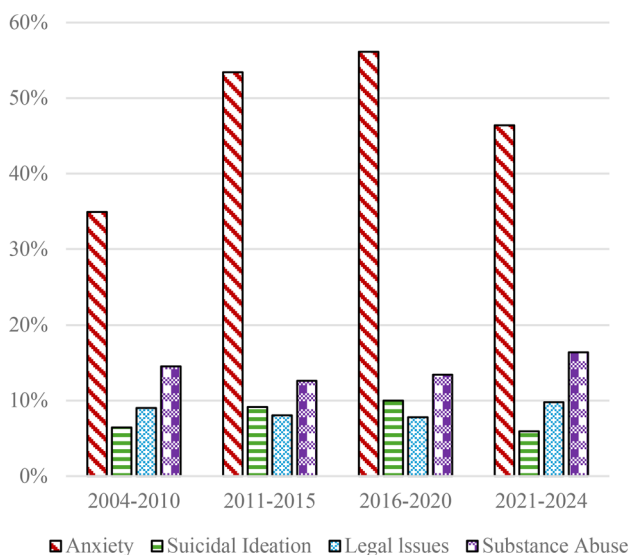


Figure 1. Percentage of well-being challenges for each of the 4 groups of service members/veterans who ever had each of the well-being challenges documented in their case manager notes.

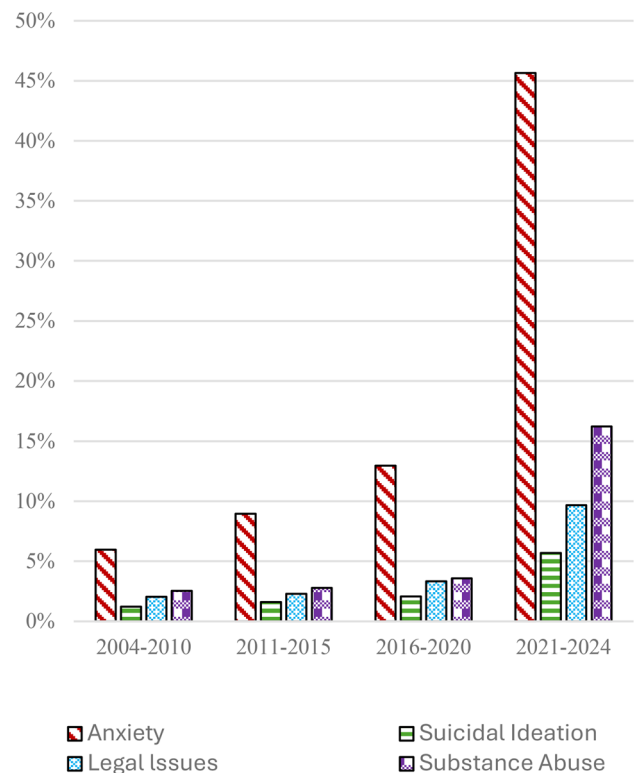


Figure 2. Percentage of each of the well-being challenges in the service members and veterans in Groups 1, 2, 3, and 4 using only the most recent (2021-2024) case manager notes.

on terminology or documentation practices. This absence of instruction preserved the authenticity of the records, yielding an assessment of each SM/V's situation unconditioned by researcher influence or response bias.

Paradoxically, this strength is also one of the study's primary limitations. Because case managers were not directed to document specific well-being domains or use standardized language, the prevalence of identified challenges may be an underestimate. Had case managers been instructed to systematically address each well-being domain, the documented rates may have been higher. Related to this, the text-mining methodology, while efficient for large datasets, is inherently sensitive to inconsistencies in natural language documentation. Spelling variations or typographical errors, such as "annxiety" in place of "anxiety" may have escaped detection, resulting in undercounting of certain challenges.

Additionally, because notes are free-form and challenge-driven by nature, they tend to reflect challenges rather than what is going well, capturing concerns such as "need help with rent" or "anxiety" rather than "no assistance needed" or "doing well," and may overestimate the 4 challenges. This may help explain the difference in the prevalence of anxiety in our study population compared to the NHANES.

A second limitation is selection bias with enrollment, which is expected given the Fund's mission to prioritize support for the most severely ill, injured, or wounded SM/Vs. Because this population skews toward greater injury severity than the general VA population, outcomes observed under the model may not generalize to the broader VA population, which includes individuals across a wider range of injury severity.

A third and significant limitation is that the control differs demographically, with a higher proportion of non-visible injuries, Soldiers, and women. This makes it a suboptimal comparison group.

A fourth limitation is the potential for inverse documentation which may inflate prevalence estimates. When a case manager explicitly notes the absence of a challenge, for example, documenting "no anxiety" the text-mining methodology used in this study may flag the encounter as positive for that well-being domain due to the presence of the search term. In other words, a notation intended to convey the absence of a challenge may have been inadvertently captured as evidence of its presence, introducing a source of overcounting that may counterbalance the undercounting associated with spelling inconsistencies and non-standardized language. In addition, the absence of documentation may not reflect lower prevalence of well-being challenges.

The Fund updates its policies and case manager training every 2 years.¹⁶ Thus, case manager documentation has likely evolved over the past 2 decades; a note written in 2004 may not be consistent in content and word choice with that of 2024 and the years in between.

A fifth limitation concerns the source of the data itself, The Fund, which introduces potential institutional bias that

could not be fully mitigated despite the deidentified binary dataset. Finally, several important confounding variables remain unaccounted for. It is unknown what concurrent support SM/Vs may have received from The Fund's other programs, VA, other nonprofit organizations, state or federal programs, or family members during the study period. As a result, it is impossible to determine whether The Fund's case management model was the primary driver of observed improvements in documented subjective well-being, a contributing factor among many, or, in some cases, incidental to outcomes altogether.

Despite these limitations, we recommend that The Fund maintain its current practice of free-form case manager documentation. We also recommend that it be further studied. The cornerstone of The Fund's longitudinal case management model is the relationship forged between the case manager and the SM/V, a relationship built on trust and continuity. Imposing structured documentation requirements, such as drop-down menus or standardized lexicon, risks introducing rigidity into what is inherently a human-centered interaction. In a model where the quality of the relationship itself is the foundation of the intervention, anything that makes that interaction feel formulaic or clinical could undermine the very dynamic that appears to drive the outcomes observed in this study.

Because of the severity of their visible and nonvisible injuries, SM/Vs supported by The Fund typically have access to some level of care and resources through federal health systems, including case managers. However, a distinction emerges when comparing the prevalence of well-being challenges documented in The Fund's case manager notes to those reported in historical VA and national surveys. For example, anxiety was identified in 50% of The Fund's SM/Vs, compared to only 16.3% of the broader VA population (NHANES).¹⁸

This discrepancy also invites a broader question: why does the model of care even matter? The VA provides case management services for severely injured veterans, typically through a registered nurse.⁷ However, traditional case management models have notable limitations, particularly in addressing the social determinants of health.¹⁴ Per VHA Directive 1110.04, a veteran may be transferred, graduated, or discharged from case management once they are deceased, incarcerated, or have sufficiently progressed clinically. While not all veterans require long-term support, this reflects a purely clinical view of case management and may not account for the social factors that profoundly influence both mental and physical health and well-being. This is particularly consequential given what is increasingly understood about the challenges of transition out of the military.^{9,10}

Available health care and case management, whether through federal health care systems or other means, should not be circumvented as those services remain critically important. What distinguishes The Fund's case management

model is its structure and scope. Unlike the traditional case management model, which is inherently tethered to clinical milestones and discharge criteria, The Fund's case managers do not come from medical backgrounds. The Fund operates with the flexibility and independence of a nonprofit. This distinction is meaningful. Without the constraints of diagnosis-driven care, The Fund's case managers are positioned to build supportive, sustained relationships with SM/Vs responsive to their individual needs and timeline. Enrollment in The Fund's case management-centered model does not end when a veteran "progresses sufficiently." The relationship continues as long as the SM/V wishes—in many cases, for life. This model of unconditional, holistic longitudinal support warrants more examination.^{8,22}

CONCLUSION

This study is the first reported in the literature to use a large 20-year database of nonprofit case manager note data. The results suggest a proactive, relationship-centric, and sustained case manager-centered model may improve long-term QOL outcomes for severely wounded SM/Vs. Future research and data analysis could help government and nonprofit agencies determine how best allocate resources to meet the needs of severely wounded, ill, and injured SM/Vs in future conflicts.

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SUPPLEMENTARY MATERIAL

Supplementary material is available at *Military Medicine* online.

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CONFLICT OF INTEREST STATEMENT

G.J.H., V.M.R., J.L.B., and M.T.F. do not have any relevant financial conflicts of interest to disclose. J.B.C. is the medical director and on the Semper Fi & America's Fund Advisory Council. Semper Fi & America's Fund reviewed but did not influence the content of the manuscript prior to its publication.

DATA AVAILABILITY

The data underlying this article were provided by Semper Fi & America's Fund by permission. Data will be shared on request to the corresponding author with permission of Semper Fi & America's Fund.

INSTITUTIONAL REVIEW BOARD

This study was approved by Madigan Army Medical Center Human Research Protections Office (HRPO) as research not involving human subjects (IRB number 225018).

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE

Not applicable.

INSTITUTIONAL CLEARANCE

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INDIVIDUAL AUTHOR CONTRIBUTION STATEMENT

G.J.H., V.M.R., J.L.B., J.B.C., assisted with writing and formatting of the manuscript, literature review, and manuscript compilation. G.J.H. and J.L.B. sought initial IRB approval. G.J.H., J.B.C., and M.T.F. assisted with study design and data analysis. J.B.C. provided oversight and guidance from the study's inception through its final review. All authors read and approved the final manuscript prior to submission.

REFERENCES

1. Harberston J, MacGregor A, McCabe C, et al. Differences in quality of life scores across injury categories by mental health status among injured U.S. military service members and veterans. *Qual Life Res*. 2023;32:461–72. <https://doi.org/10.1007/s11136-022-03263-3>
2. McCabe C, Watrous J, Eskridge S, Galarneau M. Mental and physical health, and long-term quality of life among service members injured on deployment. *Health Qual Life Outcomes*. 2021;19:220–11. <https://doi.org/10.1186/s12955-021-01852-3>
3. Mitchell TA, Waldrep KB, Sams VG, Wallum TE, Blackburn LH, White CE. An 8-year review of operation enduring freedom and operation iraqi freedom resuscitative thoracotomies. *Mil Med*. 2015;180:33–6. <https://doi.org/10.7205/MILMED-D-14-00440>
4. Muck AE, Givens M, Bebart VS, Mason PE, Goolsby C. Emergency physicians at war. *West J Emerg Med*. 2018;19:542–7. <https://doi.org/10.5811/westjem.2018.1.36233>
5. Pogoda TK, Stolzmann KL, Iverson KM, et al. Associations between traumatic brain injury, suspected psychiatric conditions, and unemployment in operation enduring freedom/operation iraqi freedom veterans. *J Head Trauma Rehabil*. 2016;31:191–203. <https://doi.org/10.1097/HTR.0000000000000092>
6. Pugh MJ, Swan A, Carlson K, Trajectories of Resilience and Complex Comorbidity Study Team, et al. Traumatic brain injury severity, comorbidity, social support, family functioning, and community reintegration among veterans of the Afghanistan and Iraq wars. *Arch Phys Med Rehabil*. 2018;99:S40–9. <https://doi.org/10.1016/j.apmr.2017.05.021>
7. Henderson J. U.S. Army social work care manager program: an initial program analysis. *Mil Med*. 2007;172:533–8. <https://doi.org/10.7205/milmed.172.5.533>
8. Kelley P, Kenny D, Gordon D, Benner P. The evolution of case management for service members injured in Iraq and Afghanistan. *Qual Health Res*. 2015;25:426–39. <https://doi.org/10.1177/1049732314553228>
9. Hoffmire C, Borowski S, Vogt D. Contribution of veterans' initial post-separation vocational, financial, and social experiences to their suicidal ideation trajectories following military service. *Suicide Life Threat Behav*. 2023;53:443–56. <https://doi.org/10.1111/sltb.12955>

10. Park C, Sacco S, Finkelstein-Fox L, et al. Post-9/11 military veterans' adjustment to civilian life over time following separation from service. *J Clin Psychol*. 2021;77:2077–95. <https://doi.org/10.1002/jclp.23144>
11. Brown NB, Bruce SE. Stigma, career worry, and mental illness symptomatology: factors influencing treatment-seeking for operation enduring freedom and operation Iraqi freedom soldiers and veterans. *Psychol Trauma*. 2016;8:276–83. <https://doi.org/10.1037/tra0000082>
12. Morgan N, Aronson K, Perkins D, et al. Reducing barriers to post-9/11 veterans' use of programs and services as they transition to civilian life. *BMC Health Serv Res*. 2020;20:525–14. <https://doi.org/10.1186/s12913-020-05320-4>
13. Englert R, Dell'Acqua R, Fitzmaurice S, Yablonsky AM. "We want to build a network": professional experiences of case managers working with military families. *Glob Pediatr Health*. 2019;6:2333794X19869784–9. <https://doi.org/10.1177/2333794X19869784>
14. Kamdar N, Khan S, Brostow D, et al. Association between modifiable social determinants and mental health among post-9/11 veterans: a systematic review. *J Mil Veteran Fam Health*. 2023;9:8–26. <https://doi.org/10.3138/jmvfh-2022-0025>
15. Semper Fi & America's Fund. Accessed July 21, 2026. <https://the-fund.org/>
16. Semper Fi & America's Fund. Standard Operating Procedures for Case Work. Semper Fi & America's Fund; 2026.
17. Blakey S, Dillon K, Wagner HR, et al. Psychosocial well-being among veterans with posttraumatic stress disorder and substance use disorder. *Psychol Trauma*. 2022;14:421–30. <https://doi.org/10.1037/tra0001018>
18. Strong J, Ray K, Findley PA, Torres R, Pickett L, Byrne RJ. Psychosocial concerns of veterans of operation enduring freedom/operation Iraqi freedom. *Health Soc Work*. 2014;39:17–24. <https://doi.org/10.1093/hsw/hlu002>
19. DeBeer BB, Kimbrel NA, Meyer EC, Gulliver SB, Morissette SB. Combined PTSD and depressive symptoms interact with Post-Deployment social support to predict suicidal ideation in operation enduring freedom and operation Iraqi freedom veterans. *Psychiatry Res*. 2014;216:357–62. <https://doi.org/10.1016/j.psychres.2014.02.010>
20. Finlay AK, Stimmel M, Blue-Howells J, et al. Use of veterans health administration mental health and substance use disorder treatment after exiting prison: the health care for reentry veterans program. *Adm Policy Ment Health*. 2017;44:177–87. <https://doi.org/10.1007/s10488-015-0708-z>
21. Tsai J, Rosenheck RA, J. Kaspro W, McGuire JF. Risk of incarceration and other characteristics of Iraq and Afghanistan era veterans in state and federal prisons. *Psychiatr Serv*. 2013;64:36–43. <https://doi.org/10.1176/appi.ps.201200188>
22. Perla L, Jackson P, Hopkins S, Daggett M, Van Horn L. Transitioning home: comprehensive case management for America's heroes. *Rehabil Nurs J*. 2013;38:231–9. <https://doi.org/10.1002/rnj.102>