The Reasons for Living Scale—Military Version: Assessing Protective Factors Against Suicide in a Military Sample

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ABSTRACT Introduction: Military suicide rates have been rising over the past decade and continue to challenge military treatment facilities. Assessing suicide risk and improving treatments are a large part of the mission for clinicians who work with uniformed service members. This study attempts to expand the toolkit of military suicide prevention by focusing on protective factors over risk factors. In 1983, Marsha Linehan published a checklist called the Reasons for Living Scale, which asked subjects to check the reasons they choose to continue living, rather than choosing suicide. The authors of this article hypothesized that military service members may have different or additional reasons to live which may relate to their military service. They created a new version of Linehan's inventory by adding protective factors related to military life. The purpose of these additions was to make the inventory more acceptable and relevant to the military population, as well as to identify whether these items constitute a separate subscale as distinguished from previously identified factors. Materials and Methods: A commonly used assessment tool, the Reasons for Living Inventory (RFL) designed by Marsha Linehan, was expanded to offer items geared to the military population. The RFL presents users with a list of items which may be reasons to not commit suicide (e.g., "I have a responsibility and commitment to my family"). The authors used focus groups of staff and patients in a military psychiatric partial hospitalization program to identify military-centric reasons to live. This process yielded 20 distinct items which were added to Linehan's original list of 48. This expanded list became the Reasons for Living—Military Version. A sample of 200 patients in the military partial hospitalization program completed the inventory at time of or close to admission. This study was approved by the Institutional Review Board at Walter Reed National Military Center for adhering to ethical principles related to pursuing research with human subjects. Results: The rotated factor matrix revealed six factors that have been labeled as follows: Survival and Coping Beliefs, Military Values, Responsibility to Family, Fear of Suicide/Disability/Unknown, Moral Objections and Child-Related Concerns. The subscale of Military Values is a new factor reflecting the addition of military items to the original RFL. Conclusions: Results suggest that formally assessing protective factors in a military psychiatric population has potential as a useful tool in the prevention of military suicide and therefore warrants further research. The latent factor we have entitled "Military Values" may help identify those service members for whom military training or "esprit de corps" is a reason for living. Further research can focus on further validation, pre/post-treatment effects on scores, expanded clinical use to stimulate increased will to live, or evaluation of whether scores on this scale, or the subscale of Military Values, can predict future suicidal behavior by service members. Finally, a larger sample size may produce more robust results to support these findings.

INTRODUCTION

The rise in suicide among military service members continues to challenge clinicians who work in military treatment facilities.[1,2] In spite of advances in assessment and treatment, a record number of U.S. soldiers, sailors, and marines took their lives in 2012. Suicide assessment in the typical psychiatric treatment setting has favored the examination of risk factors such as depression, isolation, access to means, family history, or recent loss, with limited attention to protective factors. Some developers of assessment tools have taken a less common approach, focusing on protective factors which give lives meaning or at least reduce the chance of self-harm: e.g., family, spirituality, being a role model, or fear of injury. Suicide prevention, on the whole, has emphasized a reduction in risk factors, with less focus on reasons to stay alive.[3]

The Reasons for Living Inventory (RFL) was developed by Marsha Linehan and colleagues in 1983 to determine what sorts of adaptive thoughts protect people from taking their lives.[4] Linehan traced her work back to writers such as Viktor Frankl who, as a psychiatrist and concentration camp survivor from World War II, wrote that the basic human drive is not to attain pleasure but to feel a sense of purpose—to feel that life has meaning.[5] Linehan's scale and its current expansion are founded on the assumption that when assessing suicide risk, it is vital to assess the range and strength of reasons for living.

The RFL is an inventory which assesses reasons why people choose to continue living, even when they are at their lowest emotional points—and the importance to them of these reasons. The RFL (short form) consists of 48 items which were validated in Linehan's original 1983 study, and as a shorter instrument minimized subjects' time burden. The proposed Reasons for Living Inventory—Military Version, or

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RFL-M, adds to the original 48-item list, 20 items of which reflect military culture and which assess reasons for living which are specific to those who serve in the U.S. Armed Forces. The purpose of this new tool is to add a military-focused inventory that military behavioral health practitioners can use to evaluate and treat patients who are at risk for suicidal behaviors.

The addition of military-specific reasons may allow service members to accept the RFL instrument more readily, and to recognize potential reasons for living that stem from their military identities. A possible benefit of this study is clinical: The development and use of this instrument may help potentially suicidal service members discover and perhaps adopt reasons to not take their lives.

This study involved expanding the existing RFL with additional items that were deemed "military focused" by patients and staff in a military psychiatry partial hospitalization program at Walter Reed National Military Medical Center (Walter Reed). Patients in the program are active duty service members representing the Army, Air Force, Navy, Marines, and Coast Guard who are in treatment for a wide range of behavioral health problems. In the context of assessment and treatment, patients often mention protective factors that are relevant to their military service. For example: "Suicide would disgrace the uniform I'm wearing." The researchers believe a military version of the RFL will capture more information that may be used for clinical intervention as well as suicide risk assessment in the military population, and that in particular, analysis of this information may reveal a unifying protective factor inherent among military members.

The goals in developing this instrument were two-fold: to provide clinicians with a new tool for working in military health care settings that will aid in the assessment of psychiatric patients and to create a starting point for guiding patients to value their lives. It is hoped that this tool can augment other available screenings by emphasizing positive reasons for living (protective factors), rather than focusing solely on aggravating risk factors. The objective of this particular study was to determine if protective factors endorsed by a military psychiatric population would reveal a subscale showing that the military identity itself constitutes a positive factor in choosing to live. This study is a first step in identifying and validating a construct representing service members' connection to their military identity, which may serve a protective role.

SUBJECTS AND METHODS

Subjects

The subject pool consisted of new patients admitted for care to Walter Reed's Psychiatry Continuity Service (PCS), a 4-week behavioral health partial hospitalization program for active duty service members located in Bethesda, Maryland. A total of 200 subjects completed the inventory.

Ethical Review

This study was approved by the institutional review board at Walter Reed for adhering to ethical principles related to human subjects research.

Procedure

To identify a list of military items, patients on PCS were invited to participate in small group discussions, or focus groups, in which they were administered the RFL and afterward were asked to add their own "reasons for living," including those which reflected some aspect of their military service. PCS staff was also queried in small groups as to reasons for living which have been mentioned by patients, again including those reasons which have a military aspect to them. Observational analysis of the additional questions resulted in 20 nonoverlapping military items, which were added to the original 48 on the scale. This new, expanded list of reasons for living became the RFL-M. Examples of "military reasons for living" include "My troops look up to me; I'm their role model" and "I love serving my country" (Table I).

The new modified checklist, RFL-M, consisted of 68 items. The following instructions, adapted from Linehan 1983, appeared on the first page: "Many people have thought of suicide at least once. Others have never considered it. Whether you have considered it or not, we are interested in the reasons you would have for "not" committing suicide if the thought were to occur to you or if someone were to

TABLE I. Items Comprising RFL-M Factor 2, Military Values

Item	Military Value
Item 49	I survived combat; I am not going to end it now
Item 50	My troops look up to me—I am a role model
Item 51	Taking my life will not bring back others who died
Item 52	Military service has taught me to deal with tough times
Item 53	I cannot let my family down, after all, I am their support
Item 54	Suicide is a coward's way out, and I am not a coward
Item 55	It is selfish. I would not want to burden my unit/squad/team with my extra job responsibility
Item 56	I would not want to bring shame to my uniform/squad/team
Item 57	My rank is my badge of honor—someone of my rank should have good coping skills
Item 58	Killing myself would mean letting the enemy win
Item 59	I want to make rank and retire
Item 60	I do not want to make an attempt and leave myself disabled
Item 61	I do not want my spouse to find another partner
Item 62	After I retire from the service, things will get better
Item 63	I cannot let my battle buddy/shipmate down
Item 64	My family would not get life insurance
Item 65	My military family is important to me
Item 66	I cannot leave my pet or animal companion behind
Item 67	Suicide is a military crime
Item 68	I love serving my country

suggest it to you. On the following pages are reasons people sometimes give for "not" committing suicide. We would like to know how important each of these possible reasons would be to you at this time in your life as a reason to "not" kill yourself. Even if you never have or firmly believe you never would seriously consider killing yourself, it is still important that you rate each reason. In this case, rate on the basis of "why killing yourself is not or would never be an alternative for you." For each item, please check the box (1-6) which reflects how important that item is for you as a reason for living."

Subjects were approached as close to their admission date as possible, generally within 48 hours, and were asked if they wished to participate in a brief research study. They were told the nature of the questionnaire, that it would be anonymous except for demographic information (not including their name), and that a consent form would be required if they chose to participate. There would be no consequence if they chose not to participate. If the subject agreed, then the service member was asked to sign a consent form and was given the 68-item REFL-M questionnaire. For each item, subjects were asked to check a rating from 1 (not at all important) to 6 (extremely important). They were asked to check a box for each item and for those items they deemed not applicable to check "not at all important." The time for completion was generally less than 15 minutes.

RESULTS

A total of 207 patients were approached to achieve a total sample size of 200. The seven who declined offered reasons such as "this isn't a good time" or "I don't want to think about it."

Ninety-seven percent of subjects agreed to complete the RFL-M inventory and did so within 15 minutes. A variety of anecdotal comments were expressed. Positive feedback included "It's good to be reminded of these" and "This is really important—glad you're asking about these." Subjects mentioned friends who committed suicide and the importance of addressing the problem. A smaller number, fewer than 3%, expressed negative feedback such as "Looking at these reasons made me sad." More than half of subjects returned the questionnaire with no comment.

Demographic information is presented in Table II. Approximately threequarters of subjects were male (76.5%), nearly half were between 30 and 39 years of age (46%), approximately one-half were in the Army (51%), over three-quarters were enlisted (88.5%), approximately two-thirds were married (63.3%), nearly one-half had 12 or more years' time in service (45%), nearly three-quarters had deployed one or more times with 17% having four or more deployments. Nineteen percent of subjects had returned from their most recent deployment within the past year; the rest had either not deployed (19%) or had been back for over a year (62%).

TABLE II. Subject Demographic Characteristics

Characteristic	*N*	Percentage
Gender		
Male	153	76.5
Female	47	23.5
Age		
18–29	75	37.5
30–39	92	46
40–49	28	14
50–59	5	2.5
Branch		
Air Force	30	15
Army	102	51
Coast Guard	2	1
Marines	29	14.5
Navy	37	18.5
Rank		
Enlisted	177	88.5
Officer	23	11.5
Current Marital Status		
Married	126	63.3
Single	73	36.7
Time in Service		
<3 Years	14	7
3–5 Years	30	15
6–8 Years	40	20
9–11 Years	26	13
12+ Years	90	45
Number of Deployments		
0	38	19
1	54	27
2	50	12
3	24	17
4+	34	17
Time Since Return From Most Recent Deployment		
Not Applicable – Never Deployed	38	19
<1 Year	38	19
1–3 Years	64	32
4–6 Years	41	20.5
7+ Years	19	9.5

A factor analysis on the basis of a correlation matrix was performed using data from the 200 participating subjects. The data were analyzed with IBM SPSS Statistics Version 22.0 (Armonk, New York) using iterated principal axis factoring with varimax rotation. Using a minimum eigenvalue of two, six factors were extracted which had a minimum of 0.5 correlation, each variable loading highly on one and only one factor. A Kaiser–Meyer–Olkin measure of sampling adequacy (0.883) showed the sample to be adequate. Bartlett's test of sphericity ($p < 0.001$) allowed us to accept that the correlation matrix is not an identity matrix.

Table III consists of rotated factor loadings that represent how variables are weighted for each factor and also how each variable correlates with the factor. As seen in Table III, the following factors were extracted from the data, in decreasing order of loading: Factor 1: Survival and Coping Beliefs (23 variables); Factor 2: Military Values (9 variables); Factor 3: Responsibility to Family (8 variables); Factor 4: Fear of

TABLE III. Rotated Factor Matrix

	Factor 1 Survival and Coping Beliefs	Factor 2 Military Values	Factor 3 Responsibility to Family	Factor 4 Fear of Suicide/ Disability/Unknown	Factor 5 Moral Objections	Factor 6 Child-Related Concerns
Item 1			0.740			
Item 2	0.593					
Item 3	0.677					
Item 4	0.728					
Item 5					0.784	
Item 6						
Item 7			0.648			
Item 8	0.607					
Item 9			0.751			
Item 10	0.636					
Item 11						0.686
Item 12	0.711					
Item 13	0.686					
Item 14	0.729					
Item 15				0.583		
Item 16			0.769			
Item 17						
Item 18				0.570		
Item 19	0.833					
Item 20	0.801					
Item 21						0.758
Item 22	0.745					
Item 23					0.681	
Item 24	0.793					
Item 25	0.697					
Item 26				0.654		
Item 27					0.787	
Item 28						0.782
Item 29	0.610					
Item 30			0.763			
Item 31						
Item 32	0.687					
Item 33				0.546		
Item 34					0.529	
Item 35	0.714					
Item 36	0.772					
Item 37	0.727					
Item 38				0.755		
Item 39	0.543					
Item 40	0.736					
Item 41						
Item 42	0.674					
Item 43		0.524				
Item 44	0.706					
Item 45	0.720					
Item 46				0.520		
Item 47			0.748			
Item 48			0.630			
Item 49						
Item 50		0.695				
Item 51						
Item 52		0.597				
Item 53			0.704			
Item 54						
Item 55		0.707				
Item 56		0.785				
Item 57		0.736				
Item 58						
Item 59						

(continued)

TABLE III. Continued

	Factor 1 Survival and Coping Beliefs	Factor 2 Military Values	Factor 3 Responsibility to Family	Factor 4 Fear of Suicide/ Disability/Unknown	Factor 5 Moral Objections	Factor 6 Child-Related Concerns
Item 60				0.656		
Item 61						
Item 62						
Item 63		0.688				
Item 64						
Item 65		0.650				
Item 66						
Item 67						
Item 68		0.568				

Extraction method: principal axis factoring; rotation method: varimax with Kaiser normalization; items with loadings >0.500 are included; military items are items number 49–68.

Suicide/Disability/Unknown (7 variables); Factor 5: Moral Objections (4 variables); Factor 6: Child-Related Concerns (3 variables). With the exception of Military Values, all other factors are identical or similar to those identified in Linehan's study. One factor identified by Linehan that did not appear in this study was "Fear of Social Disapproval."

DISCUSSION

The primary objective of this study was to identify whether adding military items to Linehan's original RFL could reveal a latent construct which service members could identify as a reason to continue living. This study is a first step in the validation of this construct, which we have labeled "Military Values." This study also suggested that that the expanded inventory, or RFL-M, can be successfully administered to a sample of patients in psychiatric day treatment, and that most patients can complete the form with no apparent negative response and often with a positive response. Factor analysis also found that responses to the military items correlated to a sufficient degree so as to identify this new factor of Military Values—suggesting that some service members do see their commitment to and pride in military service as a reason to stay alive.

Military suicide researchers[6,7] as well as authors of the U.S. Army Combat and Operational Stress Control Manual for Leaders and Soldiers[8] have noted that a seemingly strong protective factor for some service members is identification with their military role through unit cohesion or "*esprit de corps*," and that when this role is perceived as diminished (e.g., at retirement or medical discharge), there is subsequent worsening of mood and increased hopelessness. The subscale of Military Values in the RFL-M can help identify whether service members do indeed see their identification with the military as a reason to live; further research can determine whether this perceived identification correlates with lower incidence of suicide.

We conclude that there is potential value in assessing a service member's espousal of military values, via the RFL-M, and in including this category as a possible protective factor in suicide assessment. Further research will determine if this potential can be realized.

A limitation of this study is the relatively small sample size. Although the sample was deemed adequate for statistical analysis, a larger size will increase confidence and reliability of data analysis. In addition, the study findings reflect responses only of a particular military psychiatric population, those of patients in a partial hospitalization program. Results may differ from those of outpatients or a hospitalized sample—and may also be different from a nonclinical sample.

In addition to its potential use for suicide risk assessment, this inventory has possibilities for use in clinical practice. The tool can be given to patients pre- and post-treatment to assess changes over time. Clinicians and patients can review responses together, and clinicians can remind patients of these responses during times of lowered mood. Many of these reasons can be used as openings for longer discussions about where patients find meaning in life. Overall, reviewing these reasons may shift patients' thinking to a positive direction and lead to a more hopeful approach to problem solving. We hope to continue development of this tool as a way of helping service members broaden the discussion of suicidality and allow for a more positive, strength-based approach to saving lives.

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