

Development and validation of the Well-Being Inventory (WBI): A comprehensive tool for the assessment of Veterans' status, functioning, and satisfaction with respect to vocation, finances, health, and social relationships



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Introduction

- The framework that informed the development of the Well-Being Inventory builds on prior conceptualizations of well-being, particularly those provided by the World Health Organization¹, Berglass and Harrell², and Gladis and colleagues³.
- This framework (depicted below), suggests that a comprehensive assessment of veterans' well-being requires a consideration of status, functioning, and satisfaction within the key life domains of vocation, finances, health and social relationships.

Domains				
Dimensions	Work	Finances	Health	Social Relationships
Status	• Work Involvement • Educational Involvement	• Financial Status	• Mental/ Physical Health Status • Access to healthcare	• Partnered and Parenting Status • Community involvement
Functioning	• Work functioning • Educational functioning	• Management of finances	• Health Risk and Promotion Behaviors	• Functioning in social relationships
Satisfaction	• Work Satisfaction • Educational Satisfaction	• Satisfaction with financial situation	• Satisfaction with Mental/Physical Health • Satisfaction with Health Care	• Satisfaction with social relationships

- Existing measures of well-being and related constructs (e.g., quality of life) are limited in a number of ways:
 - Many measures focus on the health domain, neglecting other important life domains that have been identified as relevant for defining well-being (e.g., employment).^{4,5}
 - Most measures limit their assessment to a single dimension of well-being (most typically, functioning or satisfaction), and do not provide a comprehensive assessment of both objective and subjective aspects of well-being.
 - Many measures of well-being were developed for use with clinical samples and/or are intended to address the functional impact of health conditions and therefore are not broadly relevant to the larger population.
 - Few measures allow for separate scoring of different components of well-being, which limits their ability to pinpoint areas in which individuals would benefit from support.
 - Many well-being assessment tools aren't easily accessible because they are not in the public domain, require clinical administration, and/or involve complicated scoring algorithms.

Method

The development of the Well-Being Inventory (WBI) was completed in four phases:

Phase 1: Instrument Development

- We reviewed the broader literature on the assessment of well-being and other related concepts to inform our conceptualization of key components of well-being.
- We operationalized these constructs via item development and adaptation from preexisting measures and revised items based on feedback from content and instrument development experts

Phase 2: Initial psychometric study (N=301 post-9/11 veterans)

- We examined initial item characteristics, as well as internal consistency reliability for all WBI Scales

- We revised, eliminated, and added new items based on these results

Phase 3: Second psychometric study (N=286 post-9/11 veterans)

- We examined item and scale characteristics for revised WBI scales
- We correlated WBI item sets with measures of related constructs to assess convergent validity

Measures included:

WHOQOL-BREF^{6,7}, a measure of overall well-being

The Satisfaction with Life Scale⁸, a measure of overall life satisfaction

- We compared key subgroups to evaluate the discriminative validity of the WBI scales
- Based on the results of psychometric testing, we made additional item revisions

Phase 4: Final validation study currently underway

Results

Table 1. Internal Consistency Reliabilities and Convergent Validity for WBI Scales

	Cronbach's Alpha		Correlations with other Validated Measures	
	Sample 1	Sample 2	WHOQOL-BREF (2 overall items)	Life Satisfaction
VOCATION				
In the labor force	-	-	.130*	.036
Employed full-time (of those in labor force)	-	-	.135	.114
Work Functioning	.72	.83	.254*	.371*
Work Satisfaction (paid work)	.85	.88	.491*	.626*
Work Satisfaction (unpaid work)	.86	.91	.601*	.607*
Full-time involvement in school or training	-	-	.114	.142*
Educational Functioning	.88	.89	-.054	.171
Educational Satisfaction	.77	.94	.404*	.547*
FINANCES				
Positive Financial Status	-	-	.504*	.573*
Financial Functioning	.70	.70	.471*	.464*
Financial Satisfaction	.90	.90	.620*	.623*
HEALTH				
Health Condition Status (one or more)	-	-	-.264*	-.152*
Health Functioning	.93	.80	.556*	.613*
Health Satisfaction	.81	.83	.777*	.700*
SOCIAL RELATIONSHIPS				
Intimate Partner Status	-	-	.128*	.272*
Intimate Relationship Functioning	.86	.86	.404*	.556*
Intimate Relationship Satisfaction	.92	.93	.450*	.627*
Parental Status (children under 18)	-	-	.051	-.084*
Parental Functioning (children under 18)	.87	.90	.359*	.592*
Parental Satisfaction (children under 18)	.93	.83	.423*	.483*
Community Involvement	-	-	.285*	.359*
Community Functioning	.50	.84	.342*	.455*
Community Satisfaction	.84	.81	.458*	.630*
Extended Relationship Functioning	.78	.83	.259*	.369*
Extended Relationship Satisfaction	.87	.82	.453*	.630*

*p<.05; higher scores on functioning scales imply better functioning

Table 2. Comparisons of those with and without trauma exposure on WBI Scales

	Trauma Exposure (n=145) M/%	No Trauma Exposure (n=141) M(SD)	t/χ ²
VOCATION			
In the labor force	69%	79%	4.08*
Working full-time (of those in labor force)	84%	82%	.13
Pursuing full-time education or training	10%	9%	.02
Work Functioning	13.18	13.78	-2.30*
Work Satisfaction (paid work)	22.06	23.27	-1.53
Work Satisfaction (unpaid work)	14.66	15.00	-.24
Educational Functioning	13.26	12.04	1.46
Educational Satisfaction	10.43	12.59	-2.39*
FINANCES			
Financial status	3.17	3.41	-2.21*
Financial Functioning	33.45	34.69	-1.70
Financial Satisfaction	12.61	14.26	-2.81*
HEALTH			
Health Condition Status (one or more)	80%	63%	10.03*
Health Functioning	44.88	47.38	-3.18*
Health Satisfaction	9.75	11.60	-5.28*
SOCIAL RELATIONSHIPS			
Intimate Partner Status	86%	78%	2.34
Intimate Relationship Functioning	21.99	23.09	-1.66
Intimate Relationship Satisfaction	22.57	23.33	-.95
Parental status (children under 18)	76%	70%	.76
Parental Functioning (children under 18)	17.66	18.22	-1.00
Parental Satisfaction (children under 18)	12.89	13.40	-1.25
Parental Satisfaction (all)	12.57	13.39	-2.49*
Community involvement	10.15	10.47	-.62
Community Functioning	11.44	11.56	-.36
Community Satisfaction	7.51	7.86	-1.43
Friend/family Functioning	11.04	11.57	-1.51
Friend/family Satisfaction	7.21	7.80	-2.41*

*p<.05

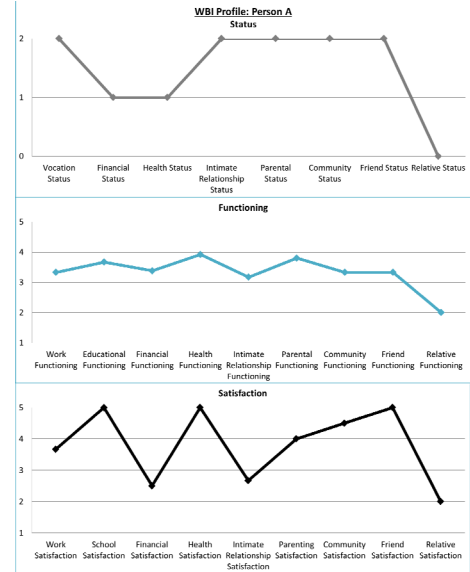
Discussion

- Preliminary psychometric analyses suggest that the Well-Being Inventory is a reliable and valid measurement tool that can be used to provide a comprehensive assessment of well-being.
 - Internal consistency reliabilities (alphas) for WBI scales ranged from .80-.94
 - Correlations with previously validated measures of similar constructs (i.e., WHOQOL-BREF and Satisfaction with Life Scale) support the convergent validity of the WBI
 - Correlations with WHOQOL-BREF Status: average r=.23; Functioning: average r=.34; Satisfaction: average r=.52
 - Correlations with Life Satisfaction Status: average r=.23; Functioning: average r=.45; Satisfaction: average r=.61
 - As expected, individuals with trauma histories reported reduced well-being on a number of WBI scales compared to those without a history of trauma exposure
- Advantages of the Well-Being Inventory:
 - Provides a single, comprehensive source of complementary scales that assess well-being across life domains and that allows for a multidimensional evaluation of different aspects of well-being
 - Researchers may either administer the full inventory or individual scales that best meet their specific needs
 - Individual scales take only a few minutes to complete; the full inventory takes approximately 20 minutes
 - Developed in the public domain and therefore widely accessible
 - Applicable to a broad range of individuals, including those with and without disabilities
 - Assesses both positive and negative aspects of well-being

Future Directions

Development of a Well-Being profile (see Figure 1 for example) that may be used by community navigators to identify areas of reduced well-being and inform referrals to relevant programs and services. Development is currently underway.

Figure 1. Preliminary WBI Profile



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