

Overlap between Subjective Well-being and Health-related Quality of Life.

Ron D. Hays, Ph.D.

(Alina Palimaru)

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Geriatric Society of America

Subjective Well-being Assessment in

Minority Aging Research

[Walt Disney World Swan & Dolphin Orlando, Florida](#)

Hedonic or Experienced Well-Being (Bentham)

- Emotional states or mood over short periods of time.

“Did you experience anger during a lot of the day yesterday?”

- Yes
- No



Eudemonic Well-Being (Aristotle)

- Perceived purpose and fulfillment

“Overall, to what extent do you feel that the things you do in your life are worthwhile?”

– Not at all (0) – 10 (Completely)



Evaluative Well-Being

- Overall appraisal of one's life

"How satisfied are you with your life in general?"

- Very satisfied
- Somewhat satisfied
- Somewhat dissatisfied
- Very dissatisfied



Health-Related Quality of Life (HRQOL)

How the person FEELS (well-being)

- Emotional well-being
- Pain
- Energy

What the person can DO (functioning)

- Self-care
- Role
- Social

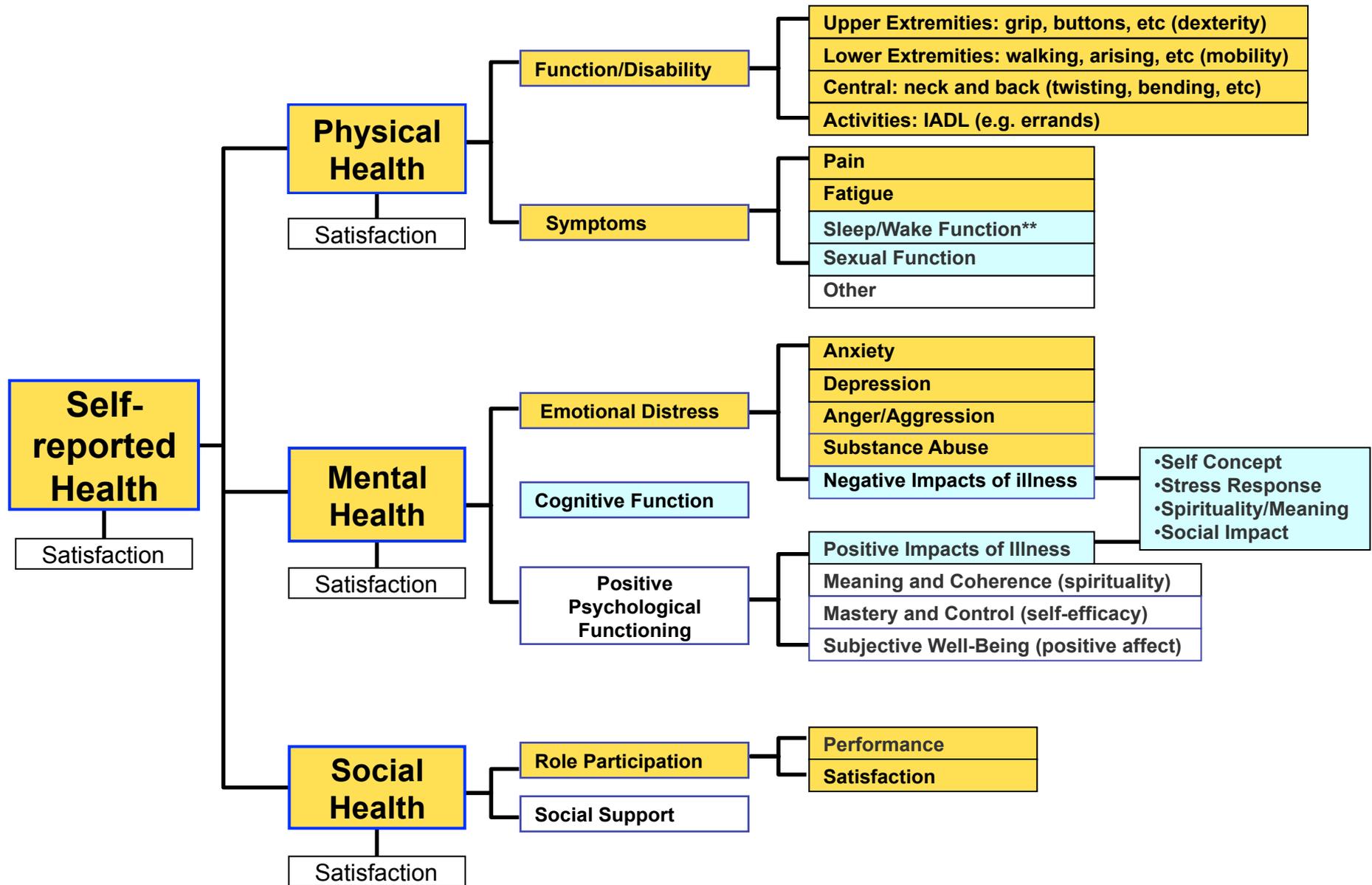


Spiro and Bossé (2000)

- Mental and social health aspects of HRQOL are often empirically associated with subjective well-being
 - “the constructs of wellbeing and health-related quality of life overlap (p. 299).

“Relations between health-related quality of life and well-being: The gerontologist's new clothes?” International Journal of Aging and Human Development, 50, 297-318.

Patient Reported Outcomes Measurement Information System (PROMIS) Framework





ELSEVIER

Subjective well-being measures for children were developed within the PROMIS project: presentation of first results

Ulrike Ravens-Sieberer^{a,*}, Janine Devine^a, Katherine Bevans^b, Anne W. Riley^c, JeanHee Moon^b, John M. Salsman^d, Christopher B. Forrest^{b,e}

^aDepartment of Child and Adolescent Psychiatry, Psychotherapy and Psychosomatics, University Medical Center Hamburg-Eppendorf, Martinistr. 52, 20246 Hamburg, Germany

^bChildren's Hospital of Philadelphia, 3400 Civic Center Blvd, Abramson Research Center, Philadelphia, PA 19104, USA

^cDepartment of Population, Family & Reproductive Health, Bloomberg School of Public Health, Johns Hopkins University E4539 - 615 N. Wolfe St, Baltimore, MD 21205, USA

^dDepartment of Medical Social Sciences, Feinberg School of Medicine, 625 North Michigan Ave, Chicago, IL 60611, USA

^eLeonard Davis Institute of Health Economics, University of Pennsylvania, Colonial Penn Center, 3641 Locust Walk, Philadelphia, PA 19104, USA

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Global Health Scale

Please respond to each item by marking one box per row.

		Excellent	Very good	Good	Fair	Poor
Global01	In general, would you say your health is:	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
Global02	In general, would you say your quality of life is:.....	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
Global03	In general, how would you rate your physical health?	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
Global04	In general, how would you rate your mental health, including your mood and your ability to think?.....	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
Global05	In general, how would you rate your satisfaction with your social activities and relationships?	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
Global09	In general, please rate how well you carry out your usual social activities and roles. (This includes activities at home, at work and in your community, and responsibilities as a parent, child, spouse, employee, friend, etc.).....	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
		Completely	Mostly	Moderately	A little	Not at all
Global06	To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1

PROMIS[®] Adult Data

- *Wave 1: Polimetrix (now YouGov)*
 - Included EQ-5D preference-based measure
 - 5 attributes (self-care, usual activities, mobility, pain/discomfort, anxiety/depression)
 - Ranges from -0.11 to 1.00
- *Wave 2: Op4G (<https://op4g.com/>)*
 - Included HUI-3 preference-based measure
 - 8 attributes (vision, hearing, speech, ambulation, dexterity, emotion, cognition, pain)
 - Ranges from -0.36 to 1.00
- Non-probability based recruitment of panels

Hays, R. D., Liu, H., & Kapteyn, A. (2015). Use of internet panels to conduct surveys. *Behavior Research Methods.*, 47 (3), 685-690.

Characteristics of PROMIS adult samples

Characteristic	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Age (median)	50	52
Female Gender	52%	51%
Race / Ethnicity		
Latino	9%	11%
Non-Hispanic Black	9%	15%
Non-Hispanic White	80%	63%
Other	2%	11%
Education		
Less than High School	3%	14%
High School graduate	16%	31%
More than High School	43%	55%

Note: 28% of wave 1 and 17% of wave 2 were 65 or older.

PROMIS Global Health Items Dimensionality (Wave 1)

- Item-scale correlations
 - Ranged from 0.53 to 0.80
- Internal consistency reliability = 0.92
- Confirmatory factor analysis (categorical) for one-factor model
 - CFI = 0.927
 - RMSEA = 0.249 (*note: < .06 desirable*)
- PCA eigenvalues: **6.25, 1.20, 0.75, ...**

Global Physical Health Scale

1. In general, how would you rate your physical health?
2. To what extent are you able to carry out your everyday physical activities ...?
3. How would you rate your pain on average?
4. How would you rate your fatigue on average?

Global Mental Health Scale

1. In general, would you say your quality of life is?
2. In general, how would you rate your mental health?
3. In general, how would you rate your satisfaction with social activities and relationships?
4. How often have you been bothered by emotional problems?

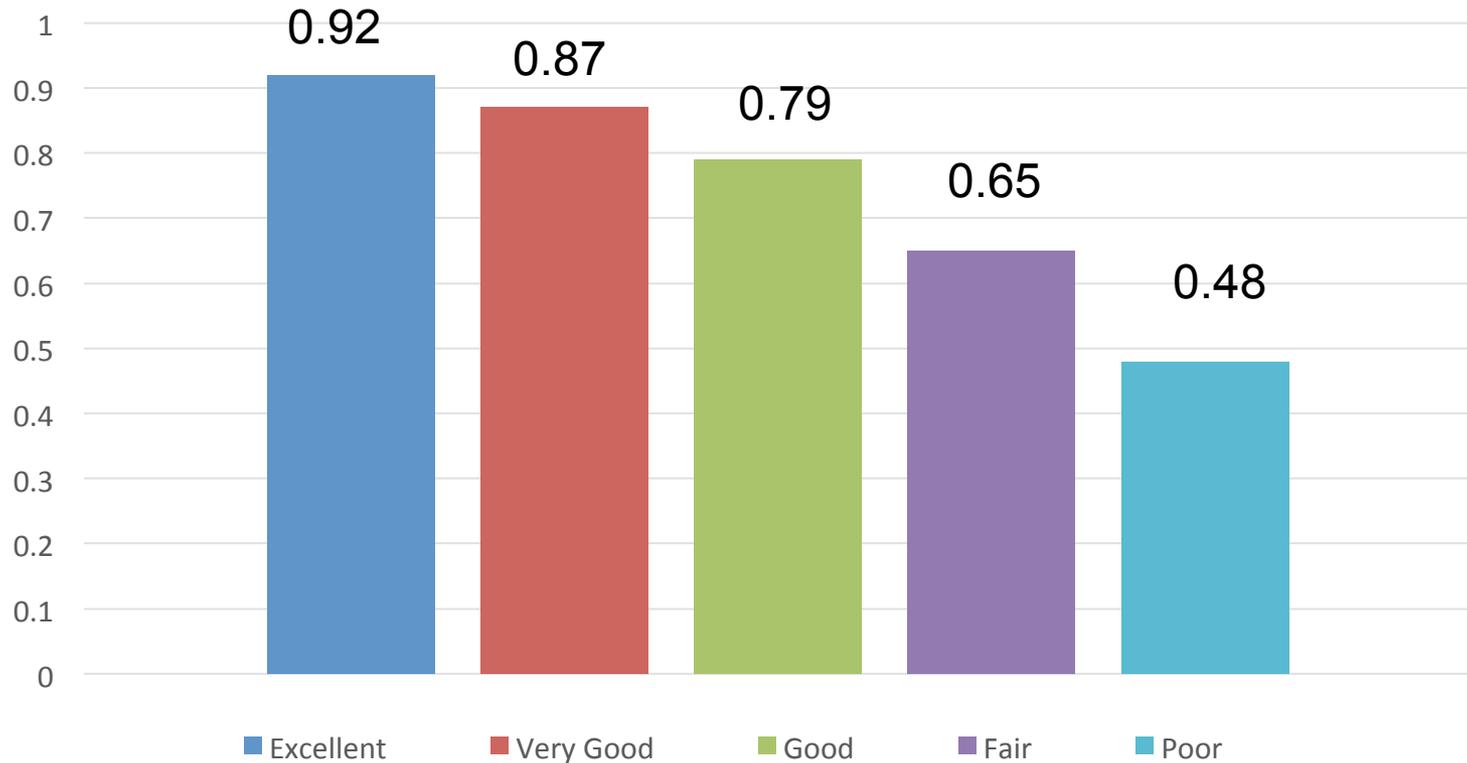
Regression of Overall Rating of Quality of Life on PROMIS global health and EQ-5D-3L items in PROMIS Wave 1 (Adjusted R² = 0.69)

	Standardized Beta	t-statistic	p-value	Zero order correlation*
Satisfaction with social activities and relationships	0.27	36.34	<0.0001	0.68
Physical health	0.20	16.98	<0.0001	0.70
General health	0.18	15.07	<0.0001	0.69
Mental health	0.17	20.34	<0.0001	0.64
Perform social activities and roles	0.12	14.50	<0.0001	0.67
Usual activities (EQ-5D)	0.04	5.36	<0.0001	0.50
Physical functioning	0.03	3.19	0.0014	0.50
Pain	0.02	2.69	0.0072	0.44
Emotional problems	0.01	0.90	0.3701	0.48
Self-care (EQ-5D)	0.01	2.67	0.0077	0.29
Mobility (EQ-5D)	0.01	0.84	0.6807	0.40
Pain/discomfort (EQ-5D)	0.00	0.48	0.6298	0.42
Anxiety/depression (EQ-5D)	0.00	0.19	0.8507	0.46
Fatigue	-0.01	-1.76	0.0789	0.50

* All p's < 0.0001

EQ-5D Scores by

In general, would you say your quality of life is:



EQ-5D mean overall = 0.82 (SD = 0.17)

Regression of Overall Rating of Quality of Life on PROMIS global health and HUI3 in PROMIS Wave 2 (Adjusted R² = 0.75)

	Standardized Beta	t-statistic	p-value	Zero order correlation*
Physical health	0.39	22.04	<.0001	0.82
General health	0.27	16.45	<.0001	0.79
Mental health	0.11	7.94	<.0001	0.66
Satisfaction with social activities and relationships	0.09	6.01	<.0001	0.64
Perform social activities and roles	0.06	4.37	<.0001	0.62
Physical functioning	0.03	2.58	0.0101	0.56
HUI-3	0.03	2.19	0.0287	0.48
Pain	0.01	0.64	0.5235	0.36
Fatigue	0.01	0.93	0.3504	0.48
Emotional problems	-0.003	-0.33	0.7437	0.39

* All p's < 0.0001

Summary

- Evaluative well-being measures are indicators of mental health(-related quality of life).
- Overall quality of life (indicator of subjective well-being) is closely related to health-related quality of life measures.
- Need for more collaboration between International Society of Quality of Life Studies and International Society for Quality of Life Research

Thank you!



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drhays@ucla.edu