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## Missoula-Vitas Quality of Life Index



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### Synonyms

[MVQoLI](#); [MVQoLI-R](#)

### Definition

The Missoula-Vitas Quality of Life Index (MVQoLI) is a tool to assess subjective quality of life among people living with advanced, life-threatening illness. It is a multidimensional survey instrument that integrates conceptual frameworks of personhood, human development, and a spectrum of experience that encompasses poles of suffering and well-being. The MVQoLI-R has been revised to make it cognitively simpler and easier to use. It has been translated into several languages and is being used in clinical practice and research in multiple countries.

### Description

Improving quality of life is a fundamental goal of palliative care. Meaningful, reliable measurement of quality of life is critical to assessing patient needs and meeting them. Data related to patients' quality of life are essential for clinical research and quality improvement efforts, as well as for assessing the value of palliative components of health services.

Measures of health-related quality of life often reflect a Cartesian dichotomy between body on one hand, mind and spirit on the other. There is a tendency to use physical data, such as serum albumin, weight loss, disease stage, or measures of functional status, such as ECOG or Karnofsky functional scales, as proxies for quality of life.

In 1983, Mount and Scott (1983) presented powerful clinical examples demonstrating that expressed quality of life of individuals with advanced illness were not adequately captured by existing tools, such as the Karnofsky and Spitzer. Those tools commonly used in clinical studies had no domains or items that could capture a patient's expressed sense of well-being. The tools were thus blind to instances in which experienced quality of life is heightened despite significant symptom burden and diminished functional disability and physical dependence.

Responding to this acknowledged deficiency, the MVQoLI is one of several multidimensional survey tools developed to assess subjective quality of life among people with advanced illness. Others include the McGill Quality of Life and Qual-E tools (Cohen et al. 1995; Steinhauser et al. 2004).

The MVQoLI reflects a multidimensional framework of personhood, as articulated by Engel (1977) and Cassell (1982). The tool was designed to capture the subjective experience of an individual living with the interpersonal, psychological, and existential challenges that accompany the process of physical and functional decline. In its unique design, the MVQoLI incorporates the concept that quality of life in the context of advanced, progressive, incurable illness can range from suffering to the experience of wellness and personal growth. In order to encompass the full range and dynamic nature of personal experience associated with illness and dying, the MVQoLI builds on an extended conceptual framework of human development through the end of life (Byock 1996).

This important concept – that quality of life will commonly, naturally change in response to the challenges of advanced, progressive illness in the period prior to death – highlights a methodological challenge for the field. Test-retest reliability is one criterion of a survey tool’s validity in psychometric research. Changes in individuals’ response over time is considered “response shift” and assumed to reflect inexactness in a survey’s clarity or ability to accurately capture experience. However, when applied to subjective quality of life of people with progressive illness, such as those cared for by palliative care and hospice programs, “response shift” might be explained, at least in part, by the natural, normal adaptation to progressive illness and decline (O’Boyle et al. 2000).

The Missoula-Vitas Quality of Life Index was developed to improve the specificity of subjective personal experience among people living with advanced, life-threatening conditions, including patients receiving palliative and hospice care. Its intended use is, primarily, to enhance the corresponding specificity of clinical interventions for such patients. The MVQoLI-R, a simplified,

single-format version of the tool, has been shown to perform well as a clinimetric instrument.

It is easy to understand why people suffer as they experience progressive symptoms, weakness, and dependence on others. Interventions to alleviate symptoms and maximize function and independence can lessen suffering. At whatever level of symptoms and functional capacity people experience, an individual may adapt – or acquiesce – to some degree of discomfort and physical dependence. Interventions that help people reframe experience and adjust expectations can also alleviate suffering. This latter mechanism for “treating” suffering is consistent with Calman’s (Calman 1984) concept that QoL is determined by the difference between a person’s expectations and their lived experience.

### Characteristics of the MVQoLI

The MVQoLI adopts a five-dimensional model of personhood and personal experience: Symptom, Function, Interpersonal, Well-being, and Transcendent. Well-being may be understood as intrapersonal, and Transcendent encompasses spirituality.

All items are subjective. The focus of each item is the impact of an aspect of illness on a respondent’s felt quality of life. For instance, rather than asking about the incidence, frequency, or intensity of pain or dyspnea, an MVQoLI item asks whether symptoms are adequately controlled and to what extent “physical symptoms overshadow any opportunity for enjoyment.” This distinction is important, for the MVQoLI is intended to complement, but not replace or obviate, tools such as the Edmonton Symptom Assessment Scale (ESAS) or Memorial Symptom Assessment Scale (MSAS). Similarly, rather than asking about a quantifiable impairment of function, the MVQoLI asks about the impact of impairment on felt quality of life. Therefore, the MVQoLI does not supplant functional tools, such as ECOG, Karnofsky, and Palliative Performance Scale.

The MVQoLI is designed to be self-administered but can be read to a respondent in person or by phone.

The initial MVQoLI comprised 25 items. In each of the five dimensions of experience, there were two items representing assessment of status within the dimension, two representing satisfaction with this aspect of life, and a single item reflecting the importance of the dimension within the person's overall quality of life. The Importance items within each dimension are a unique feature of the MVQoLI, intended to enable a weighted dimensional subscore that reflected the priorities of respondents.

In testing, the MVQoLI exhibited sound concurrent validity with the MQOLS-CA2 of Padilla and Grant (1985) and construct validity through convergence with a global quality of life item and divergence with Karnofsky performance scores. There was low correlation between the KPS scores and function subscale of the MVQoLI demonstrating that they measure different things (Byock and Merriman 1998).

In the original version of the instrument, items were either a single statement to which patients were asked to indicate agreement or disagreement, or two opposing statements for which patients indicated a greater or lesser degree of agreement by placing a mark along a linear scale anchored at each end by one of the statements. The item structure reflected the goal of measuring both positive and negative contributions to QoL. Single statements were used when the converse was obvious and unambiguous. Two-sided items were used whenever it was necessary to clarify the converse and in order to avoid "leading" the respondent by including only the positive or negative statement.

The mixed item format of the MVQoLI proved difficult for some people to use; items requiring participants to read opposing statements and make a mark closest to the one that expresses their feelings were confusing for occasional patients, particularly in hospice settings. The revision of the tool uses only single-statement items with linear response scales (Schwartz et al. 2005).

Factor analysis enabled further simplification of the tool by removing items within dimensions that were duplicative or did not contribute to the dimensional score. A 15-item version of the scale was developed and is the version in most common

use. It is available at <https://irabyock.org/writings/mvqoli/>.

### Transcultural Applicability

The MVQoLI was formally translated into Spanish and evaluated for clarity by the authors. Authorized Spanish versions of the MVQoLI are available at <https://irabyock.org/writings/mvqoli/>.

We are aware of formal translations of the MVQoLI (most with cultural adaptations) by independent researchers into French (Poirier et al. 2014), Thai (Pokpalagan and Hanucharumkul 2015), Luganda, (Namisango et al. 2007), and Greek (Theofilou et al. 2013). Clinical researchers in Kampala, Uganda translated the tool into Luganda and culturally modified the MVQoLI. In formal validation testing, they concluded that the MVQoLI-M (Lugandan translation) "is an acceptable, valid, and reliable measure of QOL for people with advanced AIDS and findings demonstrate the importance of measuring the transcendence domain in QOL in advanced illness" (Namisango et al. 2007). Researchers in Athens, Greece concluded "that the Greek version of MVQoLI-15 provided satisfactory psychometric properties supporting its use in the context of national QOL measurement" (Theofilou et al. 2013). French researchers concluded that French translations/adaptations of both the MVQoLI and the QUAL-E (Steinhauser et al. 2004) are "valid and usable for assessment of palliative advanced cancer patient QoL" (Poirier et al. 2014). Thai researchers found that the Thai version of the MVQOLI "may not have suitable psychometric properties but has some clinical utility for assessing the overall quality of life" (Pokpalagan and Hanucharumkul 2015).

Through correspondence, we are aware of unpublished MVQoLI translations in Italian and Filipino. Clinicians and researchers in Argentina, Australia (Hill 2002a, 2002b), Brazil, Canada, India, Lebanon, the Netherlands, Puerto Rico, the Republic of China, Slovakia, Singapore, and the United Kingdom have also contacted us about the use of the tool in their countries.

**MVQoLI: Illustrative Cases**

**Case of A.N.**

A.N. was a woman in her late 50s who was diagnosed with pancreatic cancer approximately 2 weeks before her first Palliative Care Center of the Bluegrass outpatient clinic visit. At St. Joseph Hospital, she underwent exploratory surgery and was found to have an inoperable cancer. She had a biliary diversion and an intestinal bypass operation to prevent biliary and intestinal obstruction, respectively. She was married and had children and grandchildren. After surgery she was offered chemotherapy but refused saying that her primary goal was symptom control and not life extension.

At the first visit she was very debilitated and weak. Pain in the abdomen and back were her primary symptoms. She also was anxious and depressed about her situation. A treatment plan was developed and explained to her and her family. Our social worker began to explore her psychosocial needs and to determine a plan of care as well. The palliative care nurse reviewed with her issues surrounding opioid use including the myths of addiction, dependence, and tolerance. All medication questions were answered.

Our team saw her repeatedly in the clinic in a multidisciplinary fashion, and when it became

apparent that her prognosis was approaching 6 months, she was referred to hospice. She continued to be followed by the palliative medicine physician who saw her in the hospital for the initial consultation and followed her in the clinic. She died peacefully at home with symptoms well controlled and no “unfinished business” (Gutsgell 2006).

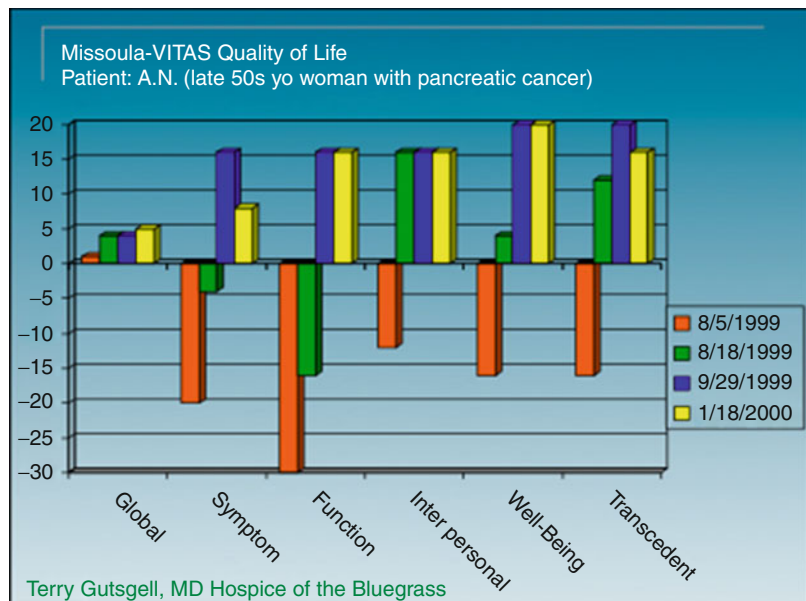
The Missoula-Vitas QoL Index scores, shown in Fig. 1, indicated the symptomatic, psychological, spiritual, and functional improvements made while under our care.

**Case of Mr. C.**

Mr. C. was a 73-year-old man with long-standing Parkinson’s disease, first diagnosed in the early 1990s. He had extensive treatments, including multiple neurosurgical procedures, but had become increasingly debilitated. His wife described significant deterioration over the last year with increasing difficulty with activities of daily living, including walking, eating, talking, and fine motor skills. She also noted intermittent decrease in cognition, saying, “Sometimes he’s just not there.” She related this to damage in left frontal lobe seen on PET scan.

Mrs. C. said her husband knew what his future held and felt hopeless. She described him as often angry. She stated, and when asked, he agreed that he

**Missoula-Vitas Quality of Life Index, Fig. 1** A.N.’s MVQoLI scores over time (From Terry Gutsgell, MD from Hospice of Bluegrass April 2006)



**SYMPTOM**

1. I feel sick all the time.

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly

2. I am satisfied with current control of my symptoms.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly

3. Despite physical discomfort, in general I can enjoy my days

OR

Physical discomfort overshadows and opportunity for enjoyment

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Agree	Agree Strongly

**FUNCTION**

4. I am still able to do many of the things I like to do.

OR

I am no longer able to do many of the things I like to do.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Agree	Agree Strongly

5. I accept the fact that I can not do many of the things I used to do.

OR

I am disappointed that I can not do many of the things I used to do.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Agree	Agree Strongly

6. My contentment with life depends upon being active and being independent in my personal care.

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly

**Missoula-Vitas Quality of Life Index, Fig. 2** (continued)

**INTERPERSONAL**

7. I have recently been able to say important things to the people close to me.

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly

8. At present, I spend as much time as I want to with family and friends.

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly

9. It is important to me to have close personal relationships.

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly

**WELL-BEING**

10. My affairs are in order;  
I could die today with a  
clear mind.

OR

My affairs are not in  
order; I am worried that  
many things are  
unresolved.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Agree Strongly	Agree	Neutral	Agree	Agree Strongly

11. I am more satisfied with myself as a person now than I was before my illness.

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly

12. It is important to me to be at peace with myself.

<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly

**Missoula-Vitas Quality of Life Index, Fig. 2** (continued)

**TRANSCENDENT**

13. I have a better sense of meaning in my life now than I have had in the past. OR I have less of a sense of meaning in my life now than I have had in the past.

O	O	O	X	O
Agree Strongly	Agree	Neutral	Agree	Agree Strongly

14. Life has become more precious to me; every day is a gift. OR Life has lost all value for me; every day is a burden.

O	O	O	X	O
Agree Strongly	Agree	Neutral	Agree	Agree Strongly

15. It is important to me to feel that my life has meaning.

X	O	O	O	O
Agree Strongly	Agree	Neutral	Disagree	Disagree Strongly

**Missoula-Vitas Quality of Life Index, Fig. 2** Mr. C’s MVQoLI (a). Mr. C’s initial symptom MVQoLI, (b) Mr. C’s function items, (c) Mr. C’s interpersonal items,

(d) Mr. C’s well-being items, (e) Mr. C’s transcendent items (Ira Byock, MD and Melanie Merriman, PhD)

felt suicidal at times. They openly discussed these feelings. He had agreed not to shoot himself because “I’d make a mess.” She said that had now decided that “if he really wants to go, he’d use clonazepam.”

He talked about wanting to avoid being a burden to his wife. “She’s not getting any younger, if I was gone, she would be in a better situation. I can’t do anything so it doesn’t make any sense.”

His MVQoLI is shown in Fig. 2. It was used in counseling as a tool for exploring his concerns and priorities, and directing corresponding attention in response to his specific needs.

**Cross-References**

- ▶ [Human Development](#)
- ▶ [Quality of Life](#)

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