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*Psychometric properties of the
WHOQOL-BREF in patients with dementia*

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Introduction

Dementia is a syndrome characterized by a progressive global deterioration in intellectual function. It is one of the major causes of disability in later life and constitutes a major public health concern.

As currently there is no curative treatment for dementia, the focus of care is to improve / maintain Quality of Life (QoL).

There is agreement that the construct of HRQL is multidimensional, including aspects of physical health, psychological health and social functioning.

Generic Scales for Dementia

COOP/WONCA charts	Selai et al., 2001; Kurz et al., 2003; Ettema et al., 2007
Duke Health Profile	Novella et al. 2001
NHP	Bureau-Chalot et al., 2002
SF-36	Novella et al., 2001; Novella et al., 2006; Patterson et al., 2006
EQ-5D	Ankri et al., 2003; Jönsson et al., 2006; Wolfs et al., 2007
WHOQOL	Struttmann et al., 1999

Objective

The aim was to validate the Spanish version of the WHOQOL-BREF in patients with Mild Cognitive Impairment and Dementia

Methods (I)

SUBJECTS

- Inclusion criteria:
 - Mild Cognitive Impairment and Dementia
 - $MMSE \geq 12$
 - Living at home with known caregiver
- Exclusion criteria:
 - $MMSE < 12$
- Face-to-face interview
- All participants signed the informed consent form
- Ethical approval: CEEAH, UAB





Methods (II)

MEASURES

- Sociodemographics
- diagnosis of dementia (DSM-III-R)
- MMSE
- Health perception
 - *Do you consider yourself healthy or unhealthy?*
 - *Do you have a medical condition that affects your quality of life?*
- Comorbid condition list
- Depressive symptoms (GDS-15; $GDS-15 \geq 6$)
- Disability (Barthel Index)
- Quality of Life: WHOQOL-BREF

World Health Organization Quality of Life WHOQOL-BREF



Physical	Psychological	Social Relationships	Environment
Pain Energy Sleep Mobility ADL Dependence on Med Working capacity	Positive Feelings T. L. M. C Self-esteem Bodily Image Negative Feelings S, R, PB	Personal Relations Social Support Sexual Activity	Physical Safety Home Environment Financial Resource Health&Social Care Opp. for new info Participation & Opp. Leisure; Environment Transport

*How would you rate your overall QoL?
How satisfied are you with your health?*

Analyses



Acceptability: floor and ceiling effects; missing data for summary scores

Reliability: internal consistency (Cronbach's alpha ≥ 0.70) and test-retest reliability (ICC ≥ 0.70)

Convergent validity: WHOQOL-BREF scales with depression and disability

Discriminant validity: association with age, gender, education, profession and marital status

Known groups differences : self-perceived health (healthy vs. unhealthy),
GDS scores (depressed vs. non-depressed)



RESULTS



Demographics

n=102

Age: mean (SD); range

78.7 (7.2); 55-91

Gender: (%)

- Female

62.7

- Missing

1.0

Marital status (%)

- single

1.0

- married

46.1

- Widowed

52.9

Education (%)

- primary school

40.2

- secondary & university

8.8

- know how to read and write

41.2

- illiterate

9.8

Living condition (%)

- own home (without help)

14.7

- own home (with carer help)

54.9

- in family home (with help)

29.4

- other

1.0

Health Status



Diagnosis DSM-III-R (%)	
- Alzheimer's disease	46.1
- Vascular dementia	10.8
- Mixed dementia	11.8
- Other dementia	6.9
- MCI	17.6
- Missing	6.9
MMSE: mean (SD); range	18.6 (4.1); 10-27
Health n (%)	
1. Excellent	0.0
2. Very good	13.7
3. Good	33.3
4. Fair	46.1
5. Bad	6.9
Self-reported health status (%)	
- Healthy	67.6
GDS-15 ≥ 6 (%)	41.2

Psychometric properties of WHOQOL-BREF

	% missing	Mean (SD)	Cronbach α	Test-retest n=27
Physical	0	54.3 (18.1)	.78	.70
Psychological	1.09	53.7 (17.5)	.79	.51
Social relation	0	53.3 (18.3)	.54	.59
Environment	0	3.42 (0.96)	.70	.61

Convergent validity

	Physical	Psychological	Social R.	Environment
MMSE	.012	.046	.307*	.284*
GDS-15	-.539**	-.685**	-.321 **	-.490**
Barthel Index	.426**	.235*	.281**	.193

•Correlations, *p<.05; ** p<.01

Discriminant validity

	Physical	Psychological	Social R.	Environment
Age ¹	ns	ns	ns	ns
Gender ²	ns	ns	ns	ns
Marital Status ²	ns	ns	ns	ns
Education ²	ns	ns	ns	ns

¹Correlations, ²ANOVA ns: non-significant

Marital status: married – widowed

Education: Primary school – know how to read and write

Known group's differences (t-test)

	Physical	Psychological	Social R.	Environment
Healthy / unhealthy	58.2 46.3 =0.001	57.2 46.1 = 0.002	56.4 47.1 = 0.017	65.3 59.5 =0.03
Non-depressed / depressed	61.4 45.3 <0.001	63.1 42.1 <0.001	56.6 49.1 = 0.04	68.3 57.6 <0.001
MMSE (≤ 17 / >17)	56.7 53.1 ns	55.5 52.8 ns	56.1 47.6 = 0.02	65.1 60.7 =0.05



Conclusions

To our knowledge this is the first study using the WHOQOL-BREF in patients with Mild Cognitive Impairment and Dementia, validated into Spanish.

Overall, the Spanish version of WHOQOL-BREF showed moderate / good psychometric properties for people with MCI and dementia, comparable to some special population.

Conclusions

QoL measures should be considered by professionals in their daily practice when assessing outcomes in patients with dementia.

However, further studies with larger samples need to confirm these results.



Thank you for your attention



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