

Differences between Patients and Experts in Health Attribute Values: the Value Adjusted Life Years approach

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OBJECTIVE:

The aim of this work is to assess if differences exist between health experts and patients in their valuations of the set of attributes and dimensions included in the VALY definition for Health-Related Quality of Life.

INTRODUCTION

The QALY approach has been criticized due to several limitations, among others, due to the narrow definition of Health-Related Quality of Life (HRQoL), which is mostly centered in patient symptoms. The *Value Adjusted Life Years* (VALY) approach intends to span the HRQoL scope, including other aspects of patient needs and wellbeing, needed to properly assess the impact of health treatments.

MATERIALS AND METHODS

Patients

- Two samples were used. A sample of 13 chronic kidney patients and a panel of 23 health consultants were recruited from all over Spain.

Method

- Content selection on health dimensions and particular attributes was carried out through a systematic literature review, adopting the PRISMA protocol.
- A set of 6 dimensions and 40 attributes were identified: physical symptoms (9 att.), affective symptoms, (8 att.), cognitive symptoms (4 att.), personal and social wellbeing (8 att.), treatment satisfaction (7 att.) and treatment experiences (4 att.).
- Attributes within a dimension were valued with attribute scores adding to 100 from not important at all (0) to very important/unavoidable (100). Dimensions were also ranked from most important (1) to less important (6). Attribute scores were used to assess dimensionality (factor analysis), and attribute averages were used to assess discrimination (mixed effects variance components) and discriminant validity (repeated measures ANOVA).

RESULTS

- Overall, attributes received different average valuations within each dimensions ($p<0.05$) except for cognitive symptoms and treatment experiences, whilst treatment experiences showed a significant statistical interaction Group*Attribute ($p=0.34$).

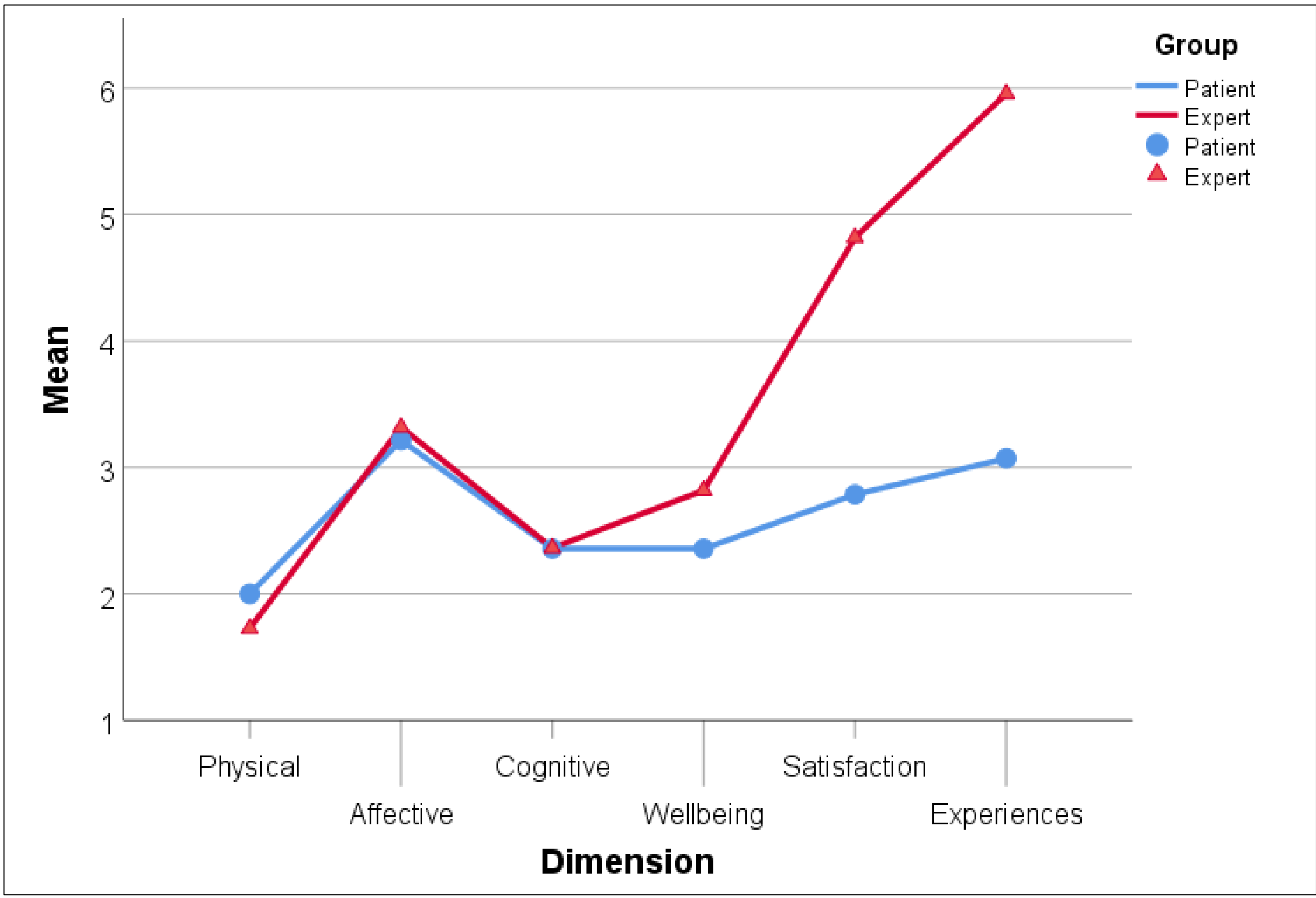


Figure 1: Dimension average importance.

- The ranking of dimensions based on their importance differed between both expert groups, but only the two last dimensions attained statistical significance: treatment satisfaction ($p<0.001$) and treatment experiences ($p<0.001$).

Table 1: Dimension average importance difference.

Dimension	Attributes	Patient-Expert importance	
		Dif.	Sig.
Physical Symptoms	9	-0.273	.525
Affective Symptoms	8	0.104	.816
Cognitive Symptoms	4	0.006	.988
Personal & Social Wellbeing	8	0.461	.349
Treatment Satisfaction	7	2.032	<.001
Treatment Experiences	4	2.883	<.001

Table 2: Mixed effect model factor significances.

Dimension	Mixed Effects Model		
	Group	Attribute	Interaction
Physical Symptoms	.386	<0.001	.006
Cognitive Symptoms	<.001	.099	.390
Personal & Social Wellbeing	.962	<.001	.041
Affective Symptoms	.572	.049	.004
Treatment Satisfaction	.141	<.001	<.001
Treatment Experiences	.849	.824	.034
Dimensions	.002	<.001	<.001

- Differences between professional health consultants and expert patients were found and results should be considered with care. Most frequently, there was an interaction between the value assigned to attributes depending on the type of expert, shown by the significant interaction between Group and Attribute in each dimension.
- Lack of agreement was found for the following attributes: autonomy ($p=0.045$), support ($p<0.001$), self-esteem ($p=0.088$), mental clearness ($p=0.001$), mental balance ($p=0.005$), costs ($p=0.047$), death ($p=0.006$), adverse events ($p=0.001$), treatment benefits ($p=0.008$), compliance ($p=0.001$), treatment progress ($p<0.001$), and medical relationship ($p=0.055$).
- Problems were found measuring cognitive symptoms with two of the attributes which were not well understood, while affective symptoms were easier to value.
- Patients did not distinguish as much as professional experts in the importance of different dimensions.
- Results may have been biased by the particular health condition of those patients included. More pathologies should be considered.

CONCLUSION

Although agreement between health consultants and patients was observed for the better valued attributes and dimensions, differences were also found which conveys to discuss how trustworthy could instruments be when not considering patient values and opinions from the very beginning on instrument development.