

## COMMENTARY

# Re-Evaluating the QPL-35 Questionnaire: Sensitivity to Change, Significant Changes, and Minimally Important Differences

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Professionals are the main asset of organisations and play an active role in the delivery of quality health care to the population. The relationship between the perception of satisfaction and occupational well-being and the quality of health services is known, therefore the measurement of the quality of professional life is increasingly included in the evaluation of the overall quality of an organisation. On the other hand, the importance of measuring it in the service unit setting is also recognised as an essential part of information systems, given that the results can be used to assess changes associated with continuous management and organisational improvement process aimed at maintaining human capital.

Among the professional quality of life measurement tools widely used in the primary care setting in our country, are the Font Roja and the CVP-35 (QPL-35), both of which have been validated.

The QPL-35, proposed by Salvador García, designed based on the theoretical demand-control-social support model of Karasek and validated by Carmen Cabezas, is a valid and reliable tool and is well accepted by professionals. It obtains a multidimensional measurement of professional quality of life and has been used in various studies performed in different settings and situations, which have shown the internal consistency of the tool, its discriminatory capacity and its factorial structure. However, there is no single or specific criterion that can declare that a questionnaire is perfectly valid, particularly when we are talking about tools that attempt to assess complex and comprehensive concepts such as the quality of professional life, which includes the optimum and overall development of all spheres of the person. The validation of these tools is a lengthy, continuous and dynamic process,<sup>1</sup> therefore the re-evaluation of its measurement properties in a new setting with different organisational connotations is timely. Thus argue the authors of the article being commented upon, quality of life must be measured with valid and reliable

## Key Points

- The validation of tools that measure complex concepts such as the quality of life must be carried out using longitudinal and dynamic processes.
- The re-evaluation of the psychometric properties of quality of life questionnaires is necessary and timely when used in a new setting with different organisational connotations.
- The sensitivity to change and the determination of the minimally important difference are key psychometric characteristics in questionnaires that are used to evaluate improvement interventions of organisations.
- There are different methods for evaluating the sensitivity to change and the determination of the minimally important difference. The question considered and the objectives of the evaluation determine the decisions on which methodology and analysis techniques can be used.

tools as well as being able to detect changes. The lack of data on the sensitivity to change of the QPL-35 justifies the need to carry out the present study and to highlight its importance and usefulness. Sensitivity to change forms part of the attributes and criteria proposed by the Medical Outcomes Trust Scientific Committee<sup>2</sup> to evaluate quality of life questionnaires, also used in our context by ePRO project.

The evaluation of sensitivity to change is a subject of debate and raises numerous questions, associated with statistical aspects, as well as the interpretation of the results. This

controversy already starts in the nomenclature, given that some authors distinguish the term “sensitivity to change” (ability of a tool to detect changes regardless of their importance or significance) and the determination of the minimally important difference or *responsiveness* (ability of a tool to detect significant or important changes), while others use the terms as synonyms or interchangeable.<sup>1</sup> A current review of this topic has identified 25 definitions, grouped into three categories (ability to detect changes in general, ability to detect important changes and ability to detect real changes in the concept that is being evaluated) and 31 measurements of sensitivity to change.<sup>3</sup>

Some authors classify sensitivity to change into internal or external,<sup>4</sup> or classify the methods to study the interpretability of quality of life measurements into those based on external references (*anchors*) and those based on the distributions of the scores in the reference scales.<sup>5,6</sup>

Sensitivity to change measurements and the determination of the minimally important difference are subject to several determining factors: the questionnaire and the its administration characteristics, statistical and methodological aspects (statistics tests used, size of sample), characteristics of the study population, setting and type of intervention. For this reason, these characteristics of questionnaires have to be, longitudinally and periodically, re-evaluated. The recently published review by Revicki et al<sup>6</sup> synthesises several recommendations on the best methods for evaluating these attributes of questionnaires, demonstrate that the determination of the minimally important difference should be based on the use of various statistical measurements and method triangulation.

In the article being commented on, the analysis of sensitivity to change has been carried out to detect important changes in the variables of the QPL-35 questionnaire and its dimensions.

As measurements of the sensitivity to change they present correlations between the changes in the overall scores and each of the dimensions of the QPL questionnaire and the changes in the scores of the Maslach Burnout Inventory (MBI) and the Goldberg General Health (GHQ-28) questionnaires. They also show the means of the changes in the QPL-35 in subjects with positive or negative changes in the MBI and GHQ-28 greater than half a standard deviation (0.5 SD), measurements of the distribution of the baseline scores of the reference scales.

The authors reason, argue and justify the decisions over the methods used to analyse the magnitude of the changes considered important for the reference scales (MBI and GHQ-28) and the minimally important difference in the QPL-35 questionnaire.

Another result highlighted by the authors is the fact that, in the subjects included in this study, the dimensions most sensible to change were those of the resources to cope with the demands. This seems logical if we take into account that the intervention carried out was aimed at improving coping with stress. According to this result, the suggest the need for a change in the culture of the organisation with the purpose of building confidence and boost health care professionals. On the other hand, they propose, as a future line, the application of intervention strategies to increase leadership abilities and support by hierarchical managers, to be able to evaluate the effect of these interventions on the quality of professional life.

The contributions of this study increase the evidence on the validity and interpretation of changes in the QPL-35 questionnaire on the quality of professional life, although the absence of a reference standard for these changes and the difficulty in interpreting these show that there are still important challenges for future research in this area.

## References

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