

Measuring Quality of Life: Generic or Specific Questionnaires?

C. Sanjuás Benito

Servei de Pneumologia, Hospital del Mar-Institut Municipal d'Investigació Mèdica (IMIM), Barcelona, Spain.

Measuring the health related quality of life of chronic respiratory disease patients is an established way to evaluate treatment outcomes. In this approach, 2 aspects of treatment effectiveness are examined. On the one hand, the statistical significance of observed differences can be analyzed, and on the other it is also possible to assign clinical significance to quality of life changes. In fact, for some questionnaires—among them many of the instruments designed specifically for use with respiratory diseases—the minimum score difference needed for patients to experience a change in quality of life is known. Any change exceeding that minimum difference can therefore be considered clinically important.¹ In this way, assessing quality of life contributes to interpreting the clinical significance of trial results.

The quality of life of chronic respiratory patients is also a good indicator of disease severity and, in the case of chronic obstructive pulmonary disease (COPD), it has been seen to be significantly related to the frequency of exacerbations and course of disease. Recent studies have shown that quality of life measured on the St George's Respiratory Questionnaire (SGRQ) is worse for patients with more frequent exacerbations,^{2,3} that successive exacerbations limit the recovery of quality of life markedly,⁴ and that the progressive deterioration of health can be slowed by preventing exacerbations.⁵ Moreover, the quality of life of patients with COPD as measured by the SGRQ has been shown to be an independent predictor of death in several studies,^{6,7} and it therefore plays an important role as a prognostic factor.

Various quality of life questionnaires, both generic and specific, have been shown to be reliable, valid, and sensitive to change and are therefore suitable for use in descriptive studies or trials assessing therapies in patients with asthma or COPD. Unlike generic questionnaires applicable to all types of patients and groups, even to the general population, questionnaires

specific to respiratory diseases have been based on symptoms and limitations in activities of daily living that asthma and COPD cause in order to produce an optimal instrument. In particular, designers looked for a tool that would be sensitive to change. However, the theoretical superiority of some questionnaires over others needs to be put to the test in trials comparing the results obtained with 2 or more instruments administered together to the same group of patients.

Several trials have compared the operative properties of generic and specific questionnaires in patients with COPD. Harper et al⁸ studied the reliability and validity of 2 specific questionnaires (the SGRQ and the Chronic Respiratory Questionnaire, CRQ) and 2 generic ones (the Respiratory Short Form-36 Health Survey, SF-36, and the EuroQol group's questionnaire, the EQ-5D) in such patients, finding that the specific instruments were more sensitive to change in clinical state; the SF-36, on the other hand, better identified patients with a history of hospitalization and comorbidity. Along the same lines, Desikan et al⁹ showed that SF-36 scores were more strongly associated with the need to use health care services than were SGRQ and CRQ scores in patients with COPD. In 2 trials assessing the results of respiratory rehabilitation—by Guyatt et al¹⁰ and de Torres et al¹¹—the CRQ was more sensitive to improved quality of life in treated patients in comparison with the Sickness Impact Profile and either the SF-36 or the SGRQ, which failed to demonstrate significant changes after treatment. In situations of greater clinical change, such as the improvement that follows diagnosis and onset of treatment, or recovery after an exacerbation, both generic and specific questionnaires have proven sensitive to change.^{12,13}

Studies have also compared generic and specific questionnaires in asthma patients. Ware et al¹⁴ showed that the Asthma Quality of Life Questionnaire of Marks (AQLQ-Marks) was more sensitive to change in the severity of asthma than the generic SF-36 was. Similarly, Rutten-van Mólken et al¹⁵ demonstrated that a specific instrument, in this case the Asthma Quality of Life Questionnaire of Juniper (AQLQ-Juniper) was more sensitive to change. Only the specific Living With Asthma Questionnaire detected change in a comparison

Correspondence: Dr. C. Sanjuás Benito.
Pg. Marítim, 25-29. 08003 Barcelona, España.
E-mail: CSanjuas@imas.imim.es

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of 2 generic and 2 specific instruments in a study by van der Molen et al.^{16,17} Those that were more closely related to asthma severity overall, on the other hand, were the generic SF-36 and, particularly, the AQLQ-Juniper. The latter had discriminated and evaluated better than the generic SF-36 in a study by Juniper et al.¹⁸

These comparisons show that the most commonly used specific questionnaires for the context of respiratory diseases are as valid or more valid than generic questionnaires and, above all, more sensitive to change experienced by patients in the course of disease. Nevertheless, it would be premature to state that generic instruments play no role in the assessment of quality of life for our patients with these diseases. Using generic questionnaires in descriptive studies allows us to determine qualitatively and quantitatively the affected aspects of quality of life of such patients in comparison with the general population, for which reference values are available, and to compare the quality of life impact between respiratory and other diseases. Likewise, they allow us to compare the effectiveness of a treatment with those obtained with other treatments and other diseases.¹⁴ Generic questionnaires can also detect unanticipated effects of therapy—whether positive or negative—that are not covered by specific questionnaires because they fall outside the scope of respiratory health.¹⁹ Furthermore, they provide information on health status related to comorbidity. For these reasons, many authors recommend using both generic and specific questionnaires.^{8,14,20}

Most situations, depending on a study's aim and the complexity of its design, call for using a specific questionnaire for the disease being studied alongside a generic one, both of which should have proven assessment capabilities.

In this issue of ARCHIVOS DE BRONCONEUMOLOGÍA, Martínez García et al²¹ report the results of a study showing that the specific SGRQ is reliable and valid for studying quality of life in patients with bronchiectasis. Among the various questionnaires specific to respiratory health, the SGRQ has the peculiarity that it is not oriented to a single disease. Rather, it was developed to analyze quality of life in patients with chronic airflow limitation caused by COPD or bronchial asthma.²² Used in numerous studies in recent years, the SGRQ is a reliable and valid instrument that is sensitive to clinical changes in patients with either disease. The Spanish version of the SGRQ has been shown to have properties that are similar to the original in the same clinical context.^{23,24} Although bronchiectasis is a different entity, it shares certain symptoms and functional alterations with other diseases in which chronic airflow limitation develops. Therefore, as no questionnaire is available to assess quality of life in bronchiectasis patients, the SGRQ has been applied even though experience is still limited. In a study of the original version of the SGRQ, Wilson et al²⁵ showed that results were reproducible in stable patients, correlated significantly with parameters indicating severity of disease, and could distinguish

patients experiencing clinical changes from those remaining stable. The same authors,²⁶ and also Hernández et al,²⁷ observed that colonization by *Pseudomonas aeruginosa* was accompanied by worse quality of life in bronchiectasis patients. The Hong Kong Chinese version of the SGRQ has likewise been validated in bronchiectasis patients.²⁸ Although Martínez García et al²¹ used a version of the SGRQ that is structured slightly differently from the original for their study in this issue of ARCHIVOS DE BRONCONEUMOLOGÍA, they found the instrument displayed excellent internal consistency and sufficient ability to discriminate between levels of severity. Thus, new evidence encourages the use of the SGRQ to assess quality of life in bronchiectasis patients. Future research should complete the validation process by ascertaining the sensitivity to change of the Spanish SGRQ in bronchiectasis. The additional descriptive information provided by generic questionnaires also leads to greater understanding of the impact of disease in patients with bronchiectasis in comparison with effects seen in other diseases.

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