evaluate the absence of this diagnostic criteria as a negative element when conceding disability pensions.

### References

- 1. Wolfe F, Anderson J, Harkness RM, Bennett RM, Carp XJ, Goldenberg DL, et al. Health status and disease severity in fibromyalgia: results of a six center longitudinal study. Arthritis Rheum. 1997;40:1571-9.
- Wilson HD, Robinson JP, Turk DC. Toward the identification of symptom patterns in people with fibromyalgia. Arthritis Rheum. 2009;61:527-34.
- Salido M, Navarro P, Judez E, Hortal R. Factores relacionados con la incapacidad temporal en pacientes con fibromialgia. Reumatol Clin. 2007;3:67-72.
- Al-Allaf AW. Work disability and health system utilization in patients with fibromyalgia syndrome. J Clin Rheumatol. 2007;13:199-201.
- 5. Ley General de la Seguridad Social Española. Real Decreto legislativo 1/1994 de 20 de Junio. BOE no. 154, June 29.
- Servicio Jurídico en línea de editorial Aranzadi [accessed 28/9/2008]. Available from: http://www.westlaw.es
- Lawrence RC, Hochberg MC, Kelsey JL. Estimates of prevalence of selected arthritis and musculoskeletal diseases in the United States. J Rheumatol. 1989;16:427-41.

- Al Dhanhani AM, Gignac MA, Su J, Fortin PR. Work disability in systemic lupus erythematosus. Arthritis Rheum. 2009;61:378-85.
- 9. Le Page JA, Iverson GL, Collins P. The impact of judge's perceptions of credibility in fibromyalgia claims. Int J Law Psychiatry. 2008;31:30-4.

Juan Carlos Restrepo Medrano,<sup>a,b,\*</sup> Elena Ronda-Pérez,<sup>b</sup> Carmen Vives-Cases,<sup>b</sup> Diana Gil-González,<sup>b</sup> and Fernando Ballester-Laguna<sup>c</sup>

<sup>a</sup>Facultad de Enfermería, Universidad de Antioquia, Medellín, Colombia <sup>b</sup>Área de Medicina Preventiva y Salud Pública, Universidad de Alicante, Alicante, Spain

<sup>c</sup>Departamento de Derecho del Trabajo y Seguridad Social, Universidad de Alicante, Alicante, Spain

\*Corresponding author.

E-mail address: juance@tone.udea.edu.co (J.C. Restrepo Medrano).

## Predictive value of questionnaires: what is it and why is it important to know?

# Validez predictiva de los cuestionarios: ¿qué es y por qué es importante su conocimiento?

### To the Editor:

In relation to a recent article in this journal, which focuses on the validation of questionnaires,<sup>1</sup> I would like to make a comment about a type of validity that is not discussed in this work, but which could have a major impact on daily medical practice: the predictive validity of the questionnaires.

The predictive validity of an instrument is its ability of it to predict changes in the health status of patients and to anticipate different health outcomes (mortality, hospitalization, surgical complications, use of services health, resource consumption, etc.) in the course of their illness independently from the characteristics of the patients at the time of diagnosis or other traditional risk factors.<sup>2</sup>

For example, several studies have shown that the questionnaires that assess the quality of life related to health (HRQOL) and health status can predict hospitalizations and other clinical events as well as mortality and use of health resources.<sup>3</sup>

This ability to predict of the instruments that assess HRQOL has been demonstrated for both generic and specific questionnaires as well as social measuring instruments.

In fact, it has been proven that the SF-36 (the most widely used generic questionnaire) is able to predict mortality in patients undergoing coronary bypass<sup>4</sup> and hospitalization and mortality in patients with heart failure.<sup>5</sup> Another generic questionnaire, the SF-12 has also shown a good ability to predict a higher consumption of medical resources in primary care for the elderly population.<sup>6</sup>

In relation with the predictive power of specific questionnaires to measure HRQOL, it was found that the MOS-HIV (a specific instrument to assess HRQL in patients with AIDS), the St. George Respiratory Questionnaire (which assesses HRQOL in patients with respiratory diseases) and the EORTC QLQ-C30 questionnaire (an instrument that assesses HRQOL in cancer patients) are able to predict disease progression, complications and survival.<sup>7-9</sup> The same predictive capacity has been demonstrated with the use of a questionnaire that assesses social usefulness, the HUI3.<sup>10</sup>

Not yet rated (or the results are non-public domain) is the predictive validity of questionnaires to assess different results collected and reported by patients, such as satisfaction with treatment, disability, life satisfaction, etc., and it would be interesting to see if they can predict different results.

In the field of rheumatology, there is currently no published data on the possible predictive validity of existing questionnaires to assess HRQOL (HAQ, WOMAC, RA, QOL, OQLQ, FIQ, etc.) and it would be important not only to have data, but it would be desirable to conduct studies to evaluate the predictive validity of these questionnaires in our environment.

The great advantage of showing that a questionnaire is able to predict health outcomes (mortality, hospitalizations, complications, resource consumption, etc.) in daily medical practice is to help health professionals to identify patients at an increased risk of morbidity, benefiting these patients with closer clinical monitoring, raising the quality of care and health outcomes achieved and reducing resource consumption, thereby enhancing the efficiency of national health system.

#### References

- 1. García de Yébenes Prous MJ, Rodríguez Salvanes F, Carmona Ortells L. Validación de cuestionarios. Reumatol Clin. 2009;5:171-7.
- 2. Ruiz Díaz M, Rejas Gutiérrez J. Calidad de vida y otras medidas de salud informadas por el paciente. In: Domínguez-Gil A, Soto J, coord. Farmacoeconomía e

Investigación de Resultados en Salud: Principios y práctica. Real Academia Nacional de Farmacia. Madrid: Europa Artes Gráficas; 2002.

- 3. Alonso J. La medida de la calidad de vida relacionada con la salud en la investigación y la práctica clínica. Gac Sanit. 2000;14:163-7.
- Rumsfeld JS, MaWhinney S, McCarthy M, Shroyer ALW, Villanueva CB, O'Brien M, et al. Health-related quality of life as a predictor of mortality following coronary artery bypass grafo surgery. JAMA. 1999;281:1298-303.
- Rodríguez-Artalejo F, Guallar-Castillón P, Rodríguez Pascual C, Montoto Otero C, Ortega Montes A, Nieto García A, et al. Health-related quality of life as a predictor of hospital readmission and death among patients with heart failure. Arch Intern Med. 2005;165:1274-9.
- Cyr PL, Lenhart G. Short form SF-12 as a predictor of health-care expenditure in individuals over 65 years of age. Med Dec Making. 1998;4:459.
- Jacobson DL, Wu AW, Feinberg J. Health-related quality of life predicts survival, cytomegalovirus disease, and study retention in clinical trial participants with advanced HIV disease. J Clin Epidemiol. 2003;56:874-9.
- Coates A, Porzsolt F, Osoba D. Quality of life in oncology practice: prognostic value of EORTC QLQ-C30 scores in patients with advanced malignancy. Eur J Cancer. 1997;33:1025-30.

- Almagro P, Calbo E, Ochoa de Echagüen A, Barreiro B, Quintana S, Heredia JL, et al. Mortality after hospitalization for COPD. Chest. 2002;121:1025-30.
  Kaplan MS, Berthelot JM, Feeny D, McFarland BH, Khen S, Orpana H. The predictive
- Kaplan MS, Berthelot JM, Feeny D, McFarland BH, Khen S, Orpana H. The predictive validity of health-related quality of life measures: mortality in a longitudinal population-based study. Qual Life Res. 2007;16:1539-46.

Javier Soto Álvarez

Departamento de Investigación de Resultados en Salud, Unidad Médica, Pfizer España, Alcobendas, Madrid, Spain

E-mail address: javier.soto.alvarez@pfizer.com