The Canadian SF-36 health survey: Normative data add to its value

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In 1991 the International Quality of Life Assessment (IQOLA) Project was initiated, under the leadership of John Ware of the Health Institute at Boston's New England Medical Center. Its goals were to translate and validate, and obtain normative data using the Medical Outcomes Study 36-item Short Form (SF-36), a generic measure of health status or health-related quality of life for use in international studies.[1] At that time, parts of the IQOLA Project were underway in Sweden and Great Britain, and in 1992 similar studies started in several European and Australasian countries as well as in Canada. The number of nation members has increased since then, and today investigators in over 40 countries have translated and evaluated the SF-36, or are in the process of doing so.[2]

The Canadian team, working in both official languages, performed the translation (adaptation) following a standard process and formally tested the assumptions underlying item scoring and the construction of multi-item scales.[3] The third step — to provide country-specific normative data — was not done because of financial constraints. It was therefore with great interest that I read the article by Wilma Hopman and colleagues in this issue (page 265).[4] Not only did they generate norms for the Canadian population using the SF-36, they were cleverly able to do so using data collected for another purpose.

Establishing norms is an important step in the translation and cultural adaptation of a scale. Because the absolute number of a scale score has little meaning by itself, norms provide anchors to interpret an individual's or a group's score in relation to those of others.[5] Thus, scores can be understood as departures from typical values.[6] Several studies have demonstrated the worth of norms in assessing the impact of disease.[7–9] Normative data also enable comparisons within and between countries, to compare scores from a specific patient sample in one country with those from a matched patient sample in another.[10] In the same way, norms permit comparisons of the relative benefits of different treatments of various diseases between centres in a country or between countries.

Hopman and colleagues obtained the Canadian normative data from a nationally representative sample of adults aged 25 years or more living in the community. The SF-36 was given to participants to complete at the end of a structured interview, which included questions about sociodemographic and clinical information and about health and personal behaviour. The process clearly met IQOLA criteria for obtaining normative data.[11]

The authors present the SF-36 scores by age group and by sex, because health status scores are known to be influenced by these sociodemographic variables.[12] They report that scores vary by age, sex and country. Mean values related to physical health declined with advancing years, as compared with values related to mental health. Similar findings have been reported for SF-36 scores from cross-sectional studies in the United States,[13] Sweden[14] and the Netherlands[15] and for Physical and Mental Summary scores in 10 countries,[16] so the trend observed in the Canadian data is likely accurate. The decline in physical health has been attributed to the natural aging process, although this reasoning has been challenged.[17] Information from a longitudinal study[18] has suggested that the presence of cohort or period effects may also play a part.

The Canadian data also indicate consistent differences between men and women. Women reported poorer health. On each scale a substantially higher proportion of men scored at the top level. Similar findings related to sex are evident in the Swedish,[14] Dutch,[15] US[13] and UK[19] studies. The reasons for these differences are unclear, although it has been observed that women report a higher incidence of psychological symptoms and greater psychological distress than do men[20] and that female patients with physical illnesses have worse scores than those of men in terms of symptoms and well-being.[21,22]

Differences were also found when Hopman and colleagues compared Canadian, US and UK normative data. Such differences across countries have been previously demonstrated,[15,23] and they can be attributed to a combination of true effects, reflecting cultural differences, and perhaps artefactual effects related to translation.[24] Sometimes these differences result from discrepancies in methods and definitions. This may be the case with the differences reported in the Canadian study, because the age range of the Canadian sample (25–75 years) was not the same as those in the US (18–≥ 65) and UK (18–64) studies. Furthermore, Jenkinson and colleagues,[19] in the UK study, used version 2 of the SF-36, which contains modi-

fied wording and different response sets for some scales.

Although Canadian French and US English versions of the SF-36 were used in the Canadian study, data were not presented by language of form completion. It is thus impossible to estimate whether there were differences by language. This is an area for further study.

In summary, Hopman and colleagues report normative data for the SF-36 for use in Canada. Although these data should be used with caution for international comparisons, their study paves the way for further investigation of linguistic differences within Canada and for the development of norms for changes over time in both well individuals and those with chronic diseases.[20]

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Competing interests: Between 1993 and 1996 Dr. Wood-Dauphinee received an honorarium and travel expenses from the New England Medical Center Hospital for translation and validation of the SF-36 for use in Canada.

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