Assessing patient-centred care for chronic pain: Validation of a new research paradigm

Emilie Paul-Savoie PhD(c), Patricia Bourgault RN PhD, Emilie Gosselin RN MSc, Stéphane Potvin PhD, Sylvie Lafrenaye MD PhD

BACKGROUND: Chronic pain is a complex phenomenon resulting from biological, psychological and social factors, and the use of patient-centred care (PCC) appears to be a promising avenue for its treatment. Various methods have been used for measuring PCC in nurses and physicians (caregivers); however, methodological problems have been raised following the observation of real clinical encounters or standardized patient simulations. The development of new strategies is required.

OBJECTIVE: To prepare and validate an observation scale for the assessment of PCC in caregivers, using standardized videos of real patients with chronic pain.

METHODS: An expert panel developed five videos and the Sherbrooke Observation Scale of Patient-Centered Care (SOS-PCC), which were tested in a sample of 21 nurses and 21 physicians working with chronic pain patients.

RESULTS: The expert panel was satisfied with the content validity of the SOS-PCC. Results revealed good internal consistency (Cronbach’s alpha = 0.88) and inter-rater reliability (intra-class coefficient = 0.93) for this scale.

CONCLUSIONS: To the authors’ knowledge, the SOS-PCC is the first instrument available in French to assess PCC behaviour of caregivers using videos of real patients with chronic pain. The psychometric qualities of these instruments are good. Future studies will need to assess this instrument with other populations of caregivers.

Key Words: Assessment; Chronic pain; Nurse; Patient care; Patient-centred care; Physician

Chronic pain is recognized as a major public health problem throughout the world (1). Its magnitude in Canada is considerable, with a high prevalence among adults (ranging from 15% to 29%) (2,3). Individuals with chronic pain are more likely to be absent from work (4,5) and consult health professionals frequently (6), resulting in a considerable economic burden (7,8). Moreover, chronic pain is a complex phenomenon resulting from several factors including biological, psychological and social factors (8), and treatments must consider all of these aspects simultaneously to be effective (9). Thus, the use of patient-centred care (PCC) appears to be a promising avenue. Moreover, it has been suggested that interdisciplinary PCC is paramount for pain management (10). In the context of medicine, PCC has four dimensions: patient-as-person; biopsychosocial perspective; sharing power and responsibility; and therapeutic alliance (11-13). These four dimensions are also found in the conceptual framework of McCormack and McCance (14), used in the nursing discipline. In recent years, empirical evidence has demonstrated that PCC is associated with many clinical benefits for patients (15-18) and their families (19), particularly in the context of chronic pain (20,21). Qualitative findings suggest that PCC with chronic pain patients allows nurses to provide improved assessment, anticipatory guidance and coaching (21). PCC may also reduce the use of health care resources and health care costs (22,23).

Although many studies support the benefits of PCC, its use in chronic pain management appears to be challenging and suboptimal (24). Moreover, the style of practice may vary among caregivers (25). In recent years, a cross-sectional observational study conducted in the Netherlands has demonstrated that the consultations in general practice appear to be more task-oriented than previously (26). More specifically, physicians provided more medical information, but expressed their concern about the patients’ medical condition less frequently and were less involved in partnership building. This trend appears to

1School of Nursing, Faculty of Medicine and Health Sciences, Université de Sherbrooke, Sherbrooke; 2Centre de recherche de l’Institut Universitaire en Santé Mentale de Montréal, Department of Psychiatry, Faculty of Medicine, Université de Montréal, Montréal; 3Department of Pediatrics, Faculty of Medicine and Health Sciences, Université de Sherbrooke, Sherbrooke, Quebec

Correspondence: Dr Sylvie Lafrenaye, Department of Pediatrics, Faculty of Medicine and Health Sciences, Université de Sherbrooke, 3001, 12e avenue Nord, 27-4016, Sherbrooke, Quebec J1H 5N4. Telephone 819-346-1110 ext 74634, fax 819-564-5398, e-mail sylvie.lafrenaye@usherbrooke.ca

This open-access article is distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC) (http://creativecommons.org/licenses/by-nc/4.0/), which permits reuse, distribution and reproduction of the article, provided that the original work is properly cited and the reuse is restricted to noncommercial purposes. For commercial reuse, contact support@pulsus.com
originates from medical school because a decline in PCC was observed in United States resident training (27).

Therefore, it is important to identify the factors that promote the use of PCC to improve academic training. To improve understanding of how caregivers could use PCC more effectively and verify the effectiveness of educational interventions, researchers need rigorous methods to capture the different components of this approach. Various methods have been used for measuring PCC in physicians including self-ratings and observer ratings (11,16). It has been suggested that self-assessment instruments are more susceptible to social desirability bias (16). Moreover, observation measures are often considered to be more objective and more appropriate for the evaluation of educational interventions (16). Observation of real clinical encounters may raise ethical and methodological problems, including the inability to include standardized and repetitive visits, and the difficulty of obtaining patients' informed consent. The use of standardized patient simulations is expensive (28,29) and usually simulates initial visits (30), which is not representative of encounters with chronic pain patients who tend to see the same physician on a regular basis. Videos of real chronic pain patients could overcome these difficulties by allowing a repetitive and standardized assessment of the attitude and behaviour of physicians and nurses. However, such videos are rarely described in the literature, and are not currently available in French. Moreover, although several observation instruments exist to measure PCC, no scale has been specifically designed to assess all dimensions of this concept in the context of chronic pain management using videos of real patients.

Thus, the aim of the present study was to develop and validate an observation scale for the assessment of PCC in an interdisciplinary context involving physicians and nurses (caregivers) and using standardized videos of real patients with chronic pain.

METHODS

Development of videos
Content development: It is suggested that a successful, objective case scenario must be developed by a group of experts familiar with the target area (31). In the present study, a panel of seven experts in the health care field with complementary expertise in chronic pain management participated in the development of videos. This panel was composed of a nurse, a physician, a physiotherapist, an occupational therapist, a psychologist, a psychopedagogue and a PhD student. After a first meeting conducted in June 2012, the expert panel agreed to develop five case scenarios of patients with different chronic pain pathways: rheumatoid arthritis; Ehlers-Danlos syndrome; long-lasting postoperative pain; fibromyalgia; and complex regional pain syndrome (CRPS). Because stigma and the presence of physical symptoms appear to influence the use of PCC (32), the expert panel opted for different pathways to represent both apparent (rheumatoid arthritis and CRPS) and nonapparent physical symptoms (Ehlers-Danlos syndrome and fibromyalgia). Long-lasting postoperative pain was not included in this part of the analysis to allow for an equal number of videos in each group. Five patients were recruited; all were women and young (16 to 45 years of age). This decision was made to limit the numerous different caring attitudes toward pain (25). Before participating in the filmed interview, all patients provided written informed consent.

Videos were recorded in the most similar conditions possible with regard to camera angle, lighting and location (representing an authentic clinical environment). The patients were filmed individually and interviewed by a physician (SL) and a nurse (PB), who conducted the interviews to elicit answers about their pain and illness. Thus, the videos present a neutral clinical meeting and do not show the interviewers. The video case scenarios were edited to include only relevant parts of this neutral meeting, using patient’s responses verbatim, to present a detailed patient profile including pertinent medical history, family and social history, patient affect and behaviour (33). The expert panel selected the following content: previous diagnosis; pharmacological and nonpharmacological treatments; impact of pain in everyday life; and previous experience with other caregivers.

Submission to an expert panel: All interviews were transcribed and a preliminary version (5 min for each video) was developed. The relevant clips of the interviews were integrated into a single video with the help of a technician to avoid abrupt cuts. All videos showed patients with a clear diagnosis of their disease that had been established for >2 years, except for the patient with long-lasting postoperative pain. All patients discussed their past and present pharmacological and nonpharmacological treatments. No patient was completely relieved of their pain and all were open to receive suggestions for treatment. Patients also spoke about their past experiences with professional caregivers, explaining what they liked or least appreciated. Finally, all patients discussed the impact of their condition on their social, family and financial situations. Table 1 presents patients' characteristics and video duration for each case scenario.

These preliminary versions were submitted to the same expert panel in March 2013. The research team asked the experts whether the information regarding diagnosis, pharmacological and nonpharmacological treatments, impact of pain in everyday life and previous and actual experience with caregivers were sufficiently relevant and clear for each video. The experts suggested that all these elements appeared in each video, but some redundant passages regarding pharmacological aspects could be removed. The experts believed that with all these content elements, the participant-caregivers would be able to provide PCC behaviour for each case scenario. Following this meeting, the videos were shortened, and a revised version was made and used for the pretest and the validation study.

Pretest: The revised version of each video was pretested in a sample of five participant-caregivers, including one physician and four nurses. After viewing the five videos, all participant-caregivers were asked about the management and treatment plan that they would provide to those patients. These explanations were recorded and three independent observers (PB, SL, EPS) evaluated the use of PCC demonstrated by the participant-caregivers using the new Sherbrooke Observation Scale of Patient-Centered Care (SOS-PCC) (see below). Pretest showed that participant-caregivers were able to explain the care they would provide after watching each video, and no further changes in these videos were made.

Development of the SOS-PCC
For the assessment of PCC, the development of an observational scale was necessary. The development of this observation scale followed the recommendations suggested by Streiner and Norman (34) for the development of a research instrument: survey of the literature; writing down potential statements; choosing an answer scale; selecting statements; and, finally, measuring the validity and reliability. More specifically, in the present study, we proceeded as follows: content development of the SOS-PCC after a survey of the literature; submission of the SOS-PCC to an expert panel; pretest; modifications of the SOS-PCC; and analysis of validity and reliability.

Content development: A literature review was conducted to identify the dimensions describing PCC. Relevant English and French articles were identified from searches of electronic databases, CINAHL and MEDLINE between 1980 and September 2012 for “patient-centered care” and its linguistic variations and “definition”, “conceptual framework”, “dimension”, “medicine”, “nursing” and “healthcare”. The articles were selected according to relevance of the topic, year of publication (1980 to 2012) and level of credibility.

The definitions of Stewart (13) and Mead and Bower (12) are the most cited in the literature in family medicine. The definition given by Stewart (13) has six interconnected dimensions: exploring both disease and illness experience; understanding the whole person; finding a common ground regarding management; incorporating prevention and health promotion; enhancing the doctor-patient relationship; and being realistic. Regarding the definition of Mead and Bower (12), the authors identified five dimensions: biopsychosocial perspective;
the patient-as-person; sharing power and responsibility; the therapeutic alliance; and doctor-as-person. In the context of nursing, McCormack and McCance (14) published a conceptual framework that includes five dimensions: working with the patient’s beliefs and values; engagement; sharing decision-making; having sympathetic presence; and providing for physical needs.

Analysis of these three definitions highlighted four common dimensions in PCC: biopsychosocial perspective; patient-as-person; sharing power and responsibility; and therapeutic alliance. These four dimensions are also found in the recent conceptual framework of PCC in the context of family medicine provided by Hudon et al (11). According to Stewart (13), the biopsychosocial perspective refers to a “willingness to become involved in the full range of difficulties patients bring to their doctors, and not just their biomedical problems”. The holistic approach refers to providing care to an individual as a whole (biological, psychological and social aspects) and not just treating the biological disease (32). However, a biopsychosocial perspective per se is not sufficient for an overall understanding of the patient’s experience of illness, which also depends on the unique biography of the patient (12). The dimension ‘patient-as-person’ explains that two patients can experience the same illness differently. Thus, before suggesting an effective treatment, the caregiver must understand the unique context and individual experience of the patient (35). ‘Sharing power and responsibility’ or ‘shared decision making’ are two terms used to discuss the participation of both the patient and the caregiver in the care process. Participation, which is a central term in this dimension, refers to a person who engages in decision making (36,37). The decision must belong jointly to both partners – the patient and caregiver. The last dimension, ‘therapeutic alliance’, refers to the quality of the relationship between caregiver and patient and can have direct impact on clinical outcomes (38,39). According to Leplege et al (32), person-centredness means to respect the person ‘behind’ the impairment or the disease.

After reviewing the literature, the next step in the development of the SOS-PCC was to integrate these four dimensions. Initially, this

| TABLE 1 | Video scenarios |
|---------|----------------|
| Patient | Age, years | Chronic pain pathology | Video duration |
| 1       | 35         | Rheumatoid arthritis   | 3 min 27 s     |
| 2       | 16         | Ehlers-Danlos syndrome | 3 min 44 s     |
| 3       | 20         | Postoperative pain     | 3 min 59 s     |
| 4       | 35         | Fibromyalgia           | 4 min 20 s     |
| 5       | 45         | Complex regional pain syndrome | 4 min 09 s |

*All female

| TABLE 2 | Sherbrooke Observation Scale of Patient-Centered Care |
|---------|------------------------------------------------------|
| Items   | Le soignant…                                         |
|         | 1 Considère les aspects biologiques [Considers biological aspects]. |
|         | 2 Considère les projets de vie [Considers life projects]. |
|         | 3 Considère les aspects psychologiques [Considers psychological aspects]. |
|         | 4 S’enquiert des conséquences de la condition actuelle du patient sur sa vie [Considers the impact of the current conditions on the patient’s life]. |
|         | 5 Considère les expériences passées [Considers past experiences]. |
|         | 6 Désire établir une relation thérapeutique [Wishes to establish a therapeutic relationship]. |
|         | 7 Démontre une ouverture d’esprit, sans préjugé [Shows an open mind, without prejudice]. |
|         | 8 Offre une prise en charge en collaboration avec le patient [Provides a treatment plan in collaboration with the patient]. |
|         | 9 S’enquiert de la compréhension que le patient a de sa condition médicale actuelle [Asks about the patient’s understanding of his/her current medical condition]. |

A four-point Likert scale was used (“Not demonstrated” to “Strongly demonstrated”).

the patient-as-person; sharing power and responsibility; the therapeutic alliance; and doctor-as-person. In the context of nursing, McCormack and McCance (14) published a conceptual framework that includes five dimensions: working with the patient’s beliefs and values; engagement; sharing decision-making; having sympathetic presence; and providing for physical needs.

Analysis of these three definitions highlighted four common dimensions in PCC: biopsychosocial perspective; patient-as-person; sharing power and responsibility; and therapeutic alliance. These four dimensions are also found in the recent conceptual framework of PCC in the context of family medicine provided by Hudon et al (11). According to Stewart (13), the biopsychosocial perspective refers to a “willingness to become involved in the full range of difficulties patients bring to their doctors, and not just their biomedical problems”. The holistic approach refers to providing care to an individual as a whole (biological, psychological and social aspects) and not just treating the biological disease (32). However, a biopsychosocial perspective per se is not sufficient for an overall understanding of the patient’s experience of illness, which also depends on the unique biography of the patient (12). The dimension ‘patient-as-person’ explains that two patients can experience the same illness differently. Thus, before suggesting an effective treatment, the caregiver must understand the unique context and individual experience of the patient (35). ‘Sharing power and responsibility’ or ‘shared decision making’ are two terms used to discuss the participation of both the patient and the caregiver in the care process. Participation, which is a central term in this dimension, refers to a person who engages in decision making (36,37). The decision must belong jointly to both partners – the patient and caregiver. The last dimension, ‘therapeutic alliance’, refers to the quality of the relationship between caregiver and patient and can have direct impact on clinical outcomes (38,39). According to Leplege et al (32), person-centredness means to respect the person ‘behind’ the impairment or the disease.

After reviewing the literature, the next step in the development of the SOS-PCC was to integrate these four dimensions. Initially, this observation scale included nine items drawn from the selected definition of PCC (11). Each dimension was represented by two items, except for the biopsychosocial dimension, which was measured by three items (biological, psychological and social aspects). The final nine items are presented in Table 2. A four-point Likert scale ranging from 1 (not demonstrated) to 4 (strongly demonstrated) was chosen to ensure that the observer could not be neutral in his answers. Moreover, it enhances the reliability and efficiency of the instrument (34).

Submission to an expert panel: The same expert panel conducted the content validity testing of the SOS-PCC. The meeting was held in June 2013 and led to changes to the preliminary version. The committee of experts discussed and concluded by mutual agreement that all the items were comprehensive and relevant to the PCC concept. However, they suggested some changes to improve the understanding of the items. The number of items and the type of scale remained the same, but the wording of the items was modified to facilitate understanding and better define each dimension. In this revised version, the four dimensions of PCC have been addressed: biopsychosocial perspective (three items); ‘patient-as-person’ (two items); sharing power and responsibility (two items) and therapeutic alliance (two items).

Pretest: During the pre-test, five participant-caregivers watched the five videos and explained the treatment plan that they would provide; these interviews were recorded. This pretest was performed to determine whether the participant-caregivers could address the four dimensions of PCC according to the SOS-PCC. More specifically, three external observers (EPS, PB, SL) completed the scale after viewing the results of caregivers who participated in the video pretest (Figure 1). The results of the pretest revealed that observers were able to answer all nine items with the four-point Likert scale during the observation. The three observers rated the items similarly and scores were comparable, indicating that the behaviour described in each statement was relevant and observable. No further change was made.

Analysis of validity and reliability

Participants: The study was conducted from June 2013 to November 2013. The target population was caregivers (nurses and physicians) who treated patients with chronic pain in their clinical practice and worked in Quebec. A population composed of nurses and physicians was targeted because interdisciplinary pain management is recommended (10) and the concept of PCC is well defined in these disciplines (12-14). To participate in the study, the caregivers needed to: be a member of a professional association; have chronic pain patients among his/her practice; not know the patients presented in videos; and speak French. A convenience sampling was chosen and participant-caregivers were recruited through advertisements and referrals. The Scientific and Human Ethics Committee of the institution at which the study was performed approved the research protocol, and all participant-caregivers provided
The purpose of the present study was to develop and validate an observation scale (SOS-PCC) to assess the use of PCC in caregivers (nurses and physicians), using standardized videos of real patients with chronic pain in an experimental clinical session. Our results showed that the SOS-PCC was valid and reliable in a French population of nurses and physicians (34). In fact, the experts concluded that all videos were representative of real patients with chronic pain and that the SOS-PCC accurately reflected the actual concept of PCC highlighted by the literature. The content of the final versions of each video are presented in Table 1. The final version of the SOS-PCC contains nine items distributed among four dimensions: biopsychosocial perspective (three items); patient-as-person (two items); sharing power and responsibility (two items); and therapeutic alliance (two items). Table 2 summarizes this final version.

**RESULTS**

The sample included 42 native French-speaking caregivers ranging from 27 to 67 years of age (mean ± SD 46.12±10.84 years); the majority of the sample was composed of women (69%). Participant-caregivers were recruited from different hospitals and clinics of the province of Quebec. Two groups were included in the present study: nurses and physicians. Table 3 summarizes the characteristics of these participant-caregivers.

**Table 3**

| Characteristics of participating nurses and physicians | Nurses (n=21) | Physicians (n=21) |
|---------------------------------------------------------|--------------|------------------|
| Age, years, mean ± SD                                   | 42.00±7.30   | 50.24±12.32      |
| Sex                                                     |              |                  |
| Male                                                    | 5 (24)       | 8 (38)           |
| Female                                                  | 16 (76)      | 13 (62)          |
| Clinical experience, years, mean ± SD                   | 16.67±7.11   | 22.81±12.19      |
| Education                                               |              |                  |
| College                                                 | 6 (29)       |                  |
| University                                              | 15 (71)      | 21 (100)         |
| Specialty                                                |              |                  |
| Family medicine                                         | 10 (48)      |                  |
| Nephrology                                              | 1 (5)        |                  |
| Anesthesiology                                          | 3 (14)       |                  |
| Radiology                                               | 1 (5)        |                  |
| Psychiatry                                              | 1 (5)        |                  |
| Rheumatology                                            | 1 (5)        |                  |
| Orthopedics                                             | 1 (5)        |                  |
| Pediatrics                                              | 1 (5)        |                  |
| Physiatry                                               | 2 (9)        |                  |

Data presented as n (%) unless otherwise indicated

written informed consent. A coding system was used to keep data confidential. After signing informed consent, a sample of 21 nurses and 21 physicians participated in the study. The validation of the SOS-PCC was conducted as part of a larger study, and this sample size was calculated to meet the objectives of the present study. This sample size meets the recommendations that suggest a range from two to 20 subjects per item (40). Participant-caregivers did not know the detailed purpose of the study to avoid social desirability bias, but they were informed that pain management was being investigated.

**Procedure**: All participant-caregivers watched the five videos of real patients with chronic pain and were interviewed individually. The interviewer asked the participant to explain the management and treatment they would provide after watching the video recording of all research interviews of every participant-caregiver. The observers evaluated individually the use of PCC demonstrated by the participant-caregiver for each video using the SOS-PCC. No consensus or discussions occurred after watching the final version of each video. The final version of the SOS-PCC contains nine items distributed among four dimensions: biopsychosocial perspective (three items); patient-as-person (two items); sharing power and responsibility (two items); and therapeutic alliance (two items). Table 2 summarizes this final version.

**Table 4**

| Scale of Patient-Centered Care | Cronbach’s alpha coefficient | Intraclass coefficient (95% CI) | Content validity |
|--------------------------------|------------------------------|---------------------------------|------------------|
| Video                          |                              |                                 |                  |
|                                | (variance)                   | (95% CI)                        |                  |
| 1                              | 0.76 (0.54)                  | 0.84 (0.75–0.90)                | Considered to be satisfactory by experts. |
| 2                              | 0.77 (0.68)                  | 0.86 (0.77–0.91)                |                  |
| 3                              | 0.81 (0.71)                  | 0.89 (0.83–0.94)                |                  |
| 4                              | 0.81 (0.81)                  | 0.91 (0.86–0.95)                |                  |
| 5                              | 0.76 (0.67)                  | 0.88 (0.81–0.93)                |                  |
| All                            | 0.88 (0.37)                  | 0.93 (0.89–0.96)                |                  |

**Internal consistency**, **Inter-rater reliability**, and **Content validation** are discussed below.

DISCUSSION

The purpose of the present study was to develop and validate an observation scale (SOS-PCC) to assess the use of PCC in caregivers (nurses and physicians), using standardized videos of real patients with chronic pain in an experimental clinical session. Our results showed that the SOS-PCC was valid and reliable in a French population of nurses and physicians working with chronic pain patients, and that the five videos have a good content validity. The development of the SOS-PCC followed a rigorous process according to the recommendations of Streiner and Norman (34). As previously mentioned, we began with a review of the literature to define the concept of PCC. The SOS-PCC was pretrained with a sample of five participant-caregivers. The participant-caregivers explained the support and the management they would provide after watching...
Assessing patient-centred care with videos

Pain Res Manag Vol 20 No 4 July/August 2015 187
23. Little P, Everitt H, Williamson I, et al. Observational study of effect of patient centredness and positive approach on outcomes of general practice consultations. BMJ 2001;323:908-11.

24. Parsons S, Harding G, Breen A, et al. Will shared decision making between patient with chronic musculoskeletal pain and physiotherapists, osteopaths and chiropractors improve patient care? Fam Pract 2012;29:203-12.

25. Zandbelt LC, Smets EM, Oorf FJ, Godfried MH, de Haes HC. Determinants of physicians' patient-centred behaviour in the medical specialist encounter. Soc Sci Med 2006;63:899-910.

26. Bensing JM, Tromp F, van Dulmen S, van den Brink-Muijnen A, Verbeul W, Schellevis FG. Shifts in doctor-patient communication between 1986 and 2002: A study of videotaped General Practice consultations with hypertension patients. BMC Fam Pract 2006;7:62.

27. Haidet P, Dains JE, Paterniti DA, et al. Medical student attitudes toward the doctor-patient relationship. Med Educ 2002;36:568-74.

28. Childs J. Clinical resource centers in nursing programs. Nurse Educ 2002;27:232-3.

29. Peteani LA. Enhancing clinical practice and education with high-fidelity human patient simulators. Nurse Educ 2004;29:25-30.

30. Tamblyn R. Use of standardized patients in the assessment of medical practice. CMAJ 1998;158:205-7.

31. McWilliams P, Botwinski C. Developing a successful nursing objective structured clinical examination. J Nurs Educ 2010;49:36-41.

32. Leplege A, Gzil F, Cammelli M, Lefeve C, Pachoud B, Ville I. Person-centredness: Conceptual and historical perspectives. Disabil Rehabil 2007;29:1555-65.

33. Vessey J, Huss K. Using standardized patients in advanced practice nursing education. J Prof Nurs 2002;18:29-35.

34. Streiner DL, Norman GR. Health Measurement Scales: A practical Guide to Their Development and Use, 4th edn. Oxford: Oxford University Press, 2008.

35. Bower P. Understanding patients: Implicit personality theory and the general practitioner. Br J Med Psych 1998;71:153-63.

36. Breartly S. Patient participation: The literature, 1990. London: Scutari Press.

37. Gottlieb LN, Feeley N. La collaboration infirmière-patient : un partenariat complexe, 2007. Montréal : Chenelière Éducation.

38. Koehler WF, Fottler MD, Swan JE. Physician-patient satisfaction: Equity in the health services encounter. Med Care Rev 1992;49:455-54.

39. Crow R, Gage H, Hampson S, Hart J, Kimber A, Thomas H. The role of expectancies in the placebo effect and their use in the delivery of health care: A systematic review. Health Tech Assess 1999;3:1-96.

40. Anthoine E, Moret L, Regnault A, Sbille V, Hardouin JB. Sample size used to validate a scale: A review of publications on newly-developed patient reported outcomes measures. Health Qual Life Outcomes 2014;12:176.

41. Grove SK, Burns N, Gray JR. The Practice of Nursing Research, 7th edn. St Louis: Saunders, 2012.

42. Nunnaly J. Psychometric Theory. New York: McGraw-Hill, 1978.

43. Polit D, Beck C. Nursing Research: Generating and Assessing Evidence for Nursing Practice, 8th edn. Philadelphia: Lippincott Williams & Wilkins, 2008.

44. Landis JR, Koch GG. The measurement of observer agreement for categorical data. Biometrics 1977;33:159-74.

45. Vallerand RJ. Vers une méthodologie de validation transculturelle de questionnaires psychologiques : implications pour la recherche en langue française. Psychologie Canadienne 1989;30:662-80.

46. Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. Spine 2000;25:3186-91.

47. Gélinas C, Loiselle CG, LeMay S, Ranger M, Bouchard E, McCormack D. Theoretical, psychometric, and pragmatic issues in pain measurement. Pain Manage Nurs 2008;9:120-30.

48. Grant JS, Davis LL. Selection and use of content experts for instrument development. Res Nurs Health 1997;20:269-74.

49. Waltz CF, Strickland OL, Lenz ER. Measurement in Nursing and Health Research, 3rd edn. New York: Springer Publishing Company, 2005.

50. Mead N, Bower P. Measuring patient-centredness: A comparison of three observation-based instruments. Patient Educ Couns 2002;39:71-80.