An Interview with **Dr. Barbara Braden**

From Humble Beginnings

The Development of an Internationally Recognized Scale

Dr. Barbara J. Braden, PhD, FAAN

INTERVIEW BY Catherine Harley, Associate Editor, *Wound Care Canada*

Barbara J. Braden, PhD, FAAN, is Dean of University College at Creighton University in Omaha, Nebraska. She received her bachelor's degree from Creighton University in 1973, her master's from the University of California at San Francisco in 1975 and her doctoral degree from the University of Texas at Austin in 1988. She is best known for her work in the development of the Braden Scale for Predicting Pressure Sore Risk, which has been translated into many languages and is used on all continents. Dr. Braden is a Fellow of the American Academy of Nursing, a member of the NPUAP board of directors and has had papers published in top-tier nursing and multidisciplinary research journals. She has received many awards for her work, not only in the U.S. but also in Europe.

Q What prompted you to get involved in pressure-ulcer risk assessment?

I was awarded a grant from the Robert Wood Johnson Foundation to begin teaching nursing home projects in conjunction with two nursing homes. One of the objectives of that project was to improve nursing home care by bringing nursing research to bear on important clinical problems in the homes. After identifying 11 clinical problems that the staffs of both homes agreed were areas of concern, I issued requests for proposals (RFPs) to nursing faculty at the two participating university schools of nursing. I received six proposals, but none addressed the problem of pressure ulcers. The directors of nursing at the two homes were very disappointed and asked that I take on this topic myself. I used existing risk-assessment tools and some additional clinical review of nursing processes to try to establish which group of risk factors was contributing to the development of pressure ulcers in those two settings.

Q Tell us about the development of the Braden Scale.

In my initial exploration, I found that poor nutrition appeared to be contributing to the excess incidence in the nursing homes. Many times this occurred in patients who had trouble tolerating tube feedings and were being given inadequate amounts to support their metabolic needs. Dr. Nancy Bergstrom had answered the RFP on nutrition and was doing a study of nutritional intake in the nursing homes at that time. I discussed this with her and we decided to collaborate on a new study to validate the "Good, Fair, Poor" nutrition subscale used in the Gosnell Scale. Our study showed that nurses tend to rate everyone as "fair," and rate very few patients as having "good" or "poor" intake. However, none of the patients in this sample developed a pressure ulcer, so we could not test our theory that nutrition was a significant risk factor for development of a pressure ulcer. As a result, we decided to write for an National Institutes of Health (NIH) grant to explore the relationship between nutrition and pressure-ulcer development.

In the process of writing the grant, Dr. Bergstrom concluded that we would need to screen patients and only recruit those patients who were at risk for developing a pressure ulcer. When she asked me about existing risk-assessment scales, I told her there were many measure-

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ment and conceptual problems with existing scales—to which she replied, "Then go home and fix it!" So I went home that evening, sat down at the dining room table and went through the subscales used by other scales and "fixed" them—both conceptually and with more appropriate scaling.

Q Could you walk us through the original implementation of the Braden Scale?

The first time we implemented the Braden Scale was as a screening tool for our study of nutrition and pressure-ulcer development. I trained the nurses by talking to them about the subscales and about the patients they were screening for admission to the study. It was later that I helped a local hospital implement a program of prevention that included risk assessment, guided protocols and process and outcome audits. When I assisted them in training and implementation, I used lecture and case studies with follow-up two weeks later to see what problems and questions they had after using it with "real" patients. Later, we developed a videotape that went over each subscale and gave examples of use in clinical practice. This videotape, along with a CD developed by JoAnn Maklebust that uses case studies to establish and maintain nursing competency in using the Braden Scale, is what I recommend to others who are implementing the Braden Scale in English-speaking settings.

Q How has the reliability of the Braden Scale been tested?

The interrater reliability of the Braden Scale was tested among RNs, LPNs and NAs. These tests were completed without training in the use of the Braden Scale to determine (a) if it was easily understood by those with clinical knowledge of a patient's condition and (b) if the rating descriptors were sufficiently clear and mutually exclusive of other ratings so there would be a high level of congruence between each level of caregiver. Unfortunately, only the RNs appeared able to achieve an acceptable level of interrater reliability when using the Braden Scale without training. We also tested the reliability on both the day shift and the evening shift to see if one group would be more reliable in using the Braden Scale than another group. (It made no difference.)

Q How many languages has the Braden Scale been translated into?

Fifteen or 16 that I know about, but it is possible that there are more. And there are often a large number of different translations in the same language. For example, some clinicians in Canada found eight different versions in the French language.* You also find translations into the same language with differences that occur by virtue of location or dialect; e.g., different Portuguese translations have been done for Brazil and Portugal.

Q To what do you attribute the success of the Braden Scale?

It seemed to catch on like wildfire, so I have to believe that clinicians were looking for a risk-assessment tool that made sense to them. But several other factors also contributed. One was the emphasis on evidence-based care that emerged in the late '80s and early '90s, and the Braden Scale had the most recent research findings related to reliability and validity. On the heels of the movement to evidence-based care was the publication of the AHCPR guidelines, which endorsed the use of the Braden Scale or the Norton Scale. But, lastly, I believe that ETs and WOCN and other nurses who specialized in wound care were innovators and early adopters of the Braden Scale. Without those nurses, it is unlikely that the rank-and-file staff nurse would have run across the Braden Scale.

Q What major obstacles has the Braden Scale overcome?

The major obstacle to use has been that nurses are overwhelmed with the amount of paperwork required of them, so when they were asked to complete the Braden Scale, they sometimes resisted. But this is normal behaviour with new technologies and most nurses have seen the need to insert risk assessment into their busy routines.

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Q What differentiates the Braden Scale from other risk-assessment tools such as the Norton Scale or the Waterlow Scale?

A recent systematic review by Pancorbo-Hildalgo and colleagues examined studies of various risk-assessment tools published in Spanish, English, French and Portuguese and performed a meta-analysis to determine which of the many risk assessment tools available demonstrated the best reliability

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The Braden Scale is available on paper, as a chart form and as a pocket card. Many software companies have incorporated it into their electronic information systems. And some clinicians have cleverly made it into mouse pads so the full and unabridged version is available to the nurses as they chart using an electronic record.

and validity. They compared the Braden Scale, Norton Scale and the Waterlow Scale. They concluded that the Braden Scale had been tested in the largest number of studies, had demonstrated the best reliability and validity indicators in a variety of settings, and was a better predictor of pressure ulcers than nursing judgement. The differences lie in the way that risk factors were conceptualized and/or operationalized. For example, the Norton Scale had mental status as one of the risk factors and conceptualized this as a combination of level of consciousness and cognitive status. I used sensory perception as a broader category that took in level of consciousness and cutaneous sensation. Mobility is a risk factor that is common to all risk scales, but I attempted to operationalize this concept to take into consideration the patient's ability to move in bed, sustain a position change and to make both large and small shifts in position. And the Braden Scale is the only one that includes exposure to friction and shear.

Q In what formats is the Braden Scale available?

It is available on paper, as a chart form. It is available as a pocket card. Many software companies have incorporated the Braden Scale into their electronic information systems. And some clinicians have cleverly made the Braden Scale into mouse pads so the full and unabridged version is available to the nurses as they chart using an electronic record.

Q How has the Braden Scale affected your career?

I authored it out of my expertise in clinical nursing, but working with Dr. Nancy Bergstrom to test it convinced me to get my PhD. It has propelled me from being known locally and regionally to being known nationally and internationally. It has resulted in opportunities to speak to multidisciplinary audiences around the world. Because of it, I have received awards for achievement from the Creighton University, University of California at San Francisco and the University of Texas at Austin. It took me from faculty to administration and directly resulted in my appointment as Graduate Dean at Creighton University. Many people read this and interpret it as meaning I was in charge of graduate programs in nursing. But because of my international reputation for research in the field, the faculty of the university had sufficient respect for my expertise to make me Dean of the entire Graduate School, which included 21 master's programs and three doctoral programs across five different schools.

In short, it turned a nice and moderately successful career into an unbelievably fabulous career!

Q If you could go back in time, is there anything you would have changed?

Not too much. Now and then I think of minor methodological changes I would have made in our studies. But in terms of my career, it could not have been any more fulfilling.

Q What are the next steps with the Braden Scale?

Between my new job as Dean of University College (Adult and Continuing Education) at Creighton University and the speed at which I am approaching retirement, I don't think I will be doing more research on the Braden Scale. I will probably spend some time during my retirement working on educational materials to support the Braden Scale.

Q Who would you say has been your greatest mentor?

In terms of my research, there is no doubt that Dr. Nancy Bergstrom has been my greatest mentor. When I began looking at this problem, I knew very little about the rigour of research, and she taught me a lot. I went on to school so I could be a full partner in this endeavour, but working with Nancy was definitely the reason that I went back to school.

Q What are your career plans?

I will be retiring from Creighton University in about three years. After that I will be free to accept more speaking invitations. So I will probably travel and write. I'm dying to have time to read everything that comes out in the journals on wound care. It is amazing how much one's job can interfere with one's career.

Q Any words of advice to nurses starting out in wound management?

Be curious, question everything, and when you have come up with a really insightful question or hypothesis, be sure to pair up with a researcher to investigate further. Never stop learning.

* See Processus de validation d'une traduction française du "Braden Scale for Predicting Pressure Sore Risk" by Nicole Denis and Diane St-Cyr in *Wound Care Canada*. 2006;4(3):20-28,54.

Reference

1. Pancorbo-Hidalgo PL, Garcia-Fernandez FP, Lopez-Medina IM, Alvarez-Nieto C. Risk assessment scales for pressure ulcer prevention: A systematic review. *Journal of Advanced Nursing*. 2006;54 (1):94-110.