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The Development of the Scale to Measure Nurses' Empathic Support Skills

Kyoko Ueno, PhD, RN
Faculty of Health care and Nursing, Graduate school of Health Care and Nursing, Juntendo University, Urayasu, Japan
Kumiko Kotake, PhD, RN
Faculty of Nursing, Graduate school of Nursing, Nara Medical University, Kashihara, Japan
Tamaki Kumigai, PhD, RN
Faculty of Nursing, Graduate School of Nursing, Osaka-City University, Osaka, Japan

Purpose: The purpose of this research was to develop Empathic Support Behavior Scale (ESB) for measuring nurses' ability of empathic support based on our previous studies.

Methods: Exploratory qualitative and quantitative research

1. Clarification of the Concept of Nurses' Empathic Support ,Survey period: From April 2013 to April 2015
   A modified grounded theory approach was used to conduct exploratory qualitative research through interviews with the following four types of nurses for extracting constructs and process of empathic support:
   (1) Eleven Certified Nurse Specialists and Certified Nurses
   (2) Ten experienced visiting nurses
   (3) Thirteen young nurses in general practice whose nursing experience is less than five years
   (4) Nine mid-level nurses in general practice whose nursing experience is five to 15 years.
2. The Development of the Empathic Support Behavior Scale, Research period: From April 2015 to April 2017
   (1) Researchers devised the question items of nurses' behaviors, attitudes, and beliefs corresponding to the constructs of empathic support based on the results of the interview research. We were careful enough to make sentences that showed concrete acts and thinking in each item. A total of 99 question items that have high internal validity in two pretests was selected among 166 question items we devised.
   (2) The first pilot study was conducted using the ESB with 99 items and external criteria scale sets. Subjects were 1,120 nurses in five hospitals in the Kanto region. They were selected following a judgment sampling approach. Statistical analysis was conducted to examine 99 items with five multiple choices, 28 items of Interpersonal Reactivity Index, 21 items of Self-Consciousness Scale, and 14 items of Multidimensional Empathy Scale.
   (3) The first pilot test's goodness of fit was low in structural equation modeling (SEM). Therefore, we conducted the pilot study again by revising the content of items and changed the number of choices from five to six. A total of 90 hospitals for study were selected randomly from 144 hospitals registered in Japan Hospital Association's database. Then, 758 nurses working for 15 hospitals that agreed to participate in the research were asked to fill out a survey. The answers of 99 items scaled from 1 (Not at all) to 6 (Fit very well). Parts of Interpersonal Reactivity Index, Self-Consciousness Scale, and Multidimensional Empathy Scale were used as external criteria scale sets. A

total of 397 valid answers (52.4%) were analyzed statistically, reducing the number of items from 99 to 27.
(4) We randomly selected 150 hospitals from among hospitals in which many patients receiving palliative care were expected to be hospitalized such as Designated Cancer Care Hospitals, and asked them to participate in this research. Questionnaires were composed of the scale of 27 items, Multidimensional Empathy Scale, and Professional Autonomy in Nursing Scale.
(5) We explained to nurses about empathic support and measured their Empathic Support Behavior Scale and Multidimensional Empathy Scale immediately after intervention and a month after for checking the change of its scores.

Results:

We sent request papers to 150 hospitals, among which 38 hospitals agreed to participate in our research (valid response rate 25.3%). We then distributed questionnaires to 1,458 nurses working for these hospitals and got 638 responses, among them 627 were valid (valid response rate 43.0%).
Their average age and years of nursing experience were 36.9±9.8 (20 to 61 years) and 14.2±9.6 (2 months to 41.1 years), respectively. The number of females, males, medical nurses, surgical nurses, palliative care nurses, and rehabilitation nurses were 593 (94.6%), 33 (5.3%), 222 (35.4%), 210 (33.5%), 38 (6.1%), and 36 (5.7%), respectively. And 499 nurses (79.6%) learned basic education in nursing vocational schools.
We checked ceiling effects, floor effects, and the item-total correlation coefficient and retrieved three irrelevant items. The scores of 24 ESB items were analyzed by exploratory factor analysis (maximum-likelihood method with promax rotation, a factor loading of 0.4), resulting in 16 items and 3 factor structures of 61.4% of cumulative contribution ratio (hereinafter referred to as ESB-16). Factor correlation coefficients were .44 to .64. Three factors were named as “empathy,” “psychological approaching,” (an attempt to relax patients affectively and express interest in them for letting them speak freely) and “holistic understanding” (an attempt to comprehend patients' life including their past life and future dreams).
Confirmatory factor analysis was conducted on structural equation modeling for checking its goodness of fit (Table 1). Nurses' “empathy” was influenced by both “psychological approaching” and “holistic understanding.” Correlation coefficients between these factors and 16 items were .52 to .87. The goodness of fit of GFI, AGFI, and RMSEA was .907, .877, and 0.83, respectively, showing good scores.
Three subscales of ESB-16 were treated as scores of empathic support and the correlation between the scores of five subscales in Professional Autonomy in Nursing Scale, and the scores of five subscales in Multidimensional Empathy Scale among nurses were checked for examining their criterion-related validity. There was positive correlation between scores of empathic support and the scores of four subscales (cognitive ability, practical ability, concrete judgment ability, and abstract judgment ability) on Professional Autonomy in Nursing (r=.54-.65). Its relationship with autonomous judgment ability (reversed item) was .31. These results can be interpreted that high empathic support skills make it easier for nurses to perceive patients' situations correctly and make concrete judgment and helping behavior by themselves. It was also ascertained that there was a weak positive correlation between Other-Oriented Emotional Reactivity and Perspective Taking, a spontaneous attempt to adopt other's

psychological perspective (r=.34, .33) on the relationship between empathic support and scores of subscales of Multidimensional Empathy Scale.
We found a reliability of ESB-16 with Cronbach's alphas of .99 on overall 16 items and of .78 to .88 on three subscales.
The research was conducted from September to October 2017. We explained to participants about empathic support, and conducted a test immediately after it and a retest a month later. Subjects were seven nurses (retention rate 33.3%, dropout rate 66.7%), and the scores of three subscales of ESB-16 were similar between immediately after our presentation and a month after it.
Conclusion:
Criterion-related validity, construct validity and reliability of ESB-16 were confirmed. Items of ESB-16 include sentences that show nurses' concrete behavior, thinking, and attitudes, so that it helps nurses to reflect on themselves by focusing on their own tasks of empathic support for patients (e.g., whether I can perceive empathic phenomena concretely, how I can approach patients, or how I can understand patients holistically). We need to continue to recheck the utility of ESB-16 as scales of educational evaluation by examining whether educational intervention for improving empathic support skills brings about the changes of the scores of three subscales in ESB-16 that are consistent with theoretical expectations
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Title:

The Development of the Scale to Measure Nurses' Empathic Support Skills

Keywords:

Japanese nurse, empathic support behavior and scale development

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Abstract Summary:

The purpose of this research was to develop Empathic Support Behavior Scale (ESB) for measuring nurses' ability of empathic support based on our previous studies. Criterion-related validity, construct validity and reliability of ESB-16 were confirmed.

Content Outline:

I.Introduction

Empathy is a concept often used in medical settings. It is thought that medical professionals should be involved empathetically with patients. In particular nurses try to understand more about patients' mental problems and reduce their feeling of loneliness and distress by empathizing with them. Yet, the manifestation of empathy depends largely on each nurse's own experience in the sphere of nursing. They tend to think that a sense of empathy arises spontaneously beyond their own control, therefore, they often feel distressed about their failure to empathize with patients when necessary. Moreover, some nurses who actively approach patients for relieving their distress deepen engagement with them too much and have difficulty in continuing to get touch with them. In other words, empathy not only brings about emotional responses from patients but also sometimes imposes psychological burden on nurses, affecting their support to patients and the relationship between them.
M. H. Davis noted in (1996/ 1999) that empathic behavior could bring about helping behavior. Nurses' attempt to understand patients emphatically often triggers some kind of helping behavior. Therefore, Kyoko Ueno and others clarified the concept of empathic support in 2017, based on results of our researches conducted from 2014 through 2016, that defines a support behavior nurses conduct by understanding patients' feeling and thinking with empathy from cognitive and emotional side as empathic support behavior.
The purpose of this research was to develop Empathic Support Behavior Scale (ESB) for measuring nurses' ability of empathic support based on our previous studies.
II.Body
Main Point
The development of the Nurses' Empathic Support Behavior Scale, in Japanese version
Supporting point

1. Researchers devised the166 question items of nurses' behaviors, attitudes, and beliefs corresponding to the constructs of empathic support based on the results of the 4 interview

researches. We were careful enough to make sentences that showed concrete acts and thinking in each item.

2. We sent request papers to 150 hospitals, among which 38 hospitals agreed to participate in our research (valid response rate 25.3%). We then distributed questionnaires to 1,458 nurses working for these hospitals and got 638 responses, among them 627 were valid (valid response rate 43.0%), after the first and second pilot studies. Questionnaires were composed of the ESB, Multidimensional Empathy Scale, and Professional Autonomy in Nursing Scale.
3. The scores of the ESB were analyzed by exploratory factor analysis (maximum-likelihood method with promax rotation, a factor loading of 0.4), resulting in 16 items and 3 factor structures of 61.4% of cumulative contribution ratio (hereinafter referred to as ESB-16). In addition, confirmatory factor analysis was conducted on structural equation modeling for checking its goodness of fit. Nurses' “empathy” was influenced by both “psychological approaching” and “holistic understanding.” Correlation coefficients between these factors and 16 items were .52 to .87. The goodness of fit of GFI, AGFI, and RMSEA was .907, .877, and 0.83, respectively, showing good scores.
4. We found a reliability of ESB-16 with Cronbach's alphas of .99 on overall 16 items and of .78 to .88 on three subscales.
5. We explained to nurses about empathic support and measured their ESB-16 and Multidimensional Empathy Scale immediately after intervention and a month after for checking the change of its scores.

III.Conclusion

A.Criterion-related validity, construct validity and reliability of ESB-16 were confirmed.

B.We need to continue to recheck the utility of ESB-16 as scales of educational evaluation by examining whether educational intervention for improving empathic support skills brings about the changes of the scores of three subscales in ESB-16 that are consistent with theoretical expectations.

First Primary Presenting Author

Primary Presenting Author

Kyoko Ueno, PhD, RN
Juntendo University
Faculty of Health care and Nursing, Graduate school of Health Care and Nursing
Professor
Urayasu
Japan

Author Summary: Kyoko Ueno is a teacher of Juntendo University, Japan. Her specialty is mental health and psychiatric nursing and she interested in hospitalized patients struggling with anxiety and depression. This interest led her to study ways to create effective nurse/patient relationships. She is particularly interested in empathy toward patients.

Second Secondary Presenting Author

Corresponding Secondary Presenting Author

Kumiko Kotake, PhD, RN
Nara Medical University

Faculty of Nursing, Graduate school of Nursing
Professor
Kashihara
Japan

Author Summary: I am a teacher and researcher of home care nursing for undergraduate and graduate students. My themes are to exploring how to care of psychological adjustment of laryngectomized patients, and nursing education.

Third Secondary Presenting Author

Corresponding Secondary Presenting Author

Tamaki Kumigai, PhD, RN
Osaka-City University
Faculty of Nursing, Graduate School of Nursing
Professor
Osaka
Japan

Author Summary: Tamaki Kumagai is a professor of Graduate School of Nursing, Osaka-City University. Her research interest include Burnout, Self-Regulated Learning, Meta recognition and development of scale. Her current research project is concerned with active transition for professional nurse from nursing student.