DEVELOPMENT AND VALIDATION OF A CARING EMPATHY ASSESSMENT TOOL FOR INDONESIAN NURSES

Wiwin Martiningsih
Polytechnic of Health of Malang, Indonesia
wiwin_martiningsih@yahoo.co.id

ABSTRACT

This study explored the experiences of caring empathy, by developing and validating a caring empathy tool for Indonesian nurses. The researcher utilized the exploratory-sequential mixed method design. The study was conducted at various hospitals in East Java, Indonesia. Results of the study in phase 1 showed emergence of 2 major themes, namely: caring empathy as a core behavior of the nurse-patient relationship; and caring empathy as an important quality of caring. Furthermore, the results in phase 2, through the use of a 54-item Caring Empathy Assessment Tool (CEAT) which was developed to assess caring empathy behaviors of Indonesian nurses, yielded the following:I-CVI scores ranged from 0.86 to 1.00, S-CVI score was 0.984I, concurrent validity between CEAT and CDI was r=601, (p=0.000) and CEAT with TEQ was r=0.230, (p=0.000); inter-rater agreement was 81%, whereas the degree of agreement among raters using Cohen's Kappa was 0.538. The intra-rater agreement was 85%, and 0.667 for Cohen's Kappa. Based on factorial analysis, there remained 38 items or 62.31% of the total variance. The validity and reliability of the CEAt were verified.

Keywords*: caring empathy, development, tool, validation*

INTRODUCTION

The life of nurses can be challenging at times, and their commitment to patients cannot be sacrificed. Nurses continually dedicate themselves to putting their best foot forward. The act of caring for patients means going above and beyond normally accepted behaviors and dedicating to uphold the strong values of commitment, concern, and empathy. Empathy is a caring value implanted in nursing and nurses need to understand and demonstrate empathy in responding to the needs of patients. However, readiness to respond to another person's call for help has been overlooked by some nurses (Hojat, 2016). This issue was mentioned in the nursing literature that some nurses neglect to show caring empathy with patients due to advancing technology in nursing care, and high workload especially in acute care units. A similar study showed that looking at empathy as a caring behavior from the perspective of healthcare providers had identified a troubling trend that the erosion of empathy over the course of healthcare education and clinical practice seemed to be lacking (Sinclair et al., 2017). In a study by Martiningsih, et al. (2017), there were nurses who have neglected to demonstrate caring empathy due to a high workload and exhaustion. Exploring further the reasons why some nurses failed to show caring empathy was the fear of contracting the virus and negative attitude or stigma.

Another study which sought to determine the level and type of empathy is in a sample of Iranian oncology nurses. The result of this study was most oncology nurses have positive attitudes of empathy with cancer patients but empathic concern, as one of the emotional components of empathy, was stronger than a cognitive component of empathy. Cognitive component is very important, because from this concern the understanding of the problems of the patient can be identified (Sedaghati Kesbakhi et al., 2017).

The lack of empathy and concern by nurses in Indonesia was manifested by the negative behavior displayed by some nurses during the research investigation. Nurses were also anxious about disease transmission despite their education concerning infection control and the low incidence of transmission to health care providers.

Other studies have shown that nurses and other healthcare providers would view the patients with diseases in a negative light, with perceived bad behavior including injection drug use, homosexuality, and promiscuity (Stringer et al., 2016; Peate et al., 2002; Petro-Nustas et al., 2002, as cited in Frain, 2017). Empathy is a caring action expected from nurses as they do nursing care interventions to meet patient needs who tend to have a closed nature, because they do not want treatment regularly, and/or because of shame about their disease.

How can nurses apply caring empathy while they are afraid of contracting, carry a negative stigma on the disease, and various reasons such as heavy workloads. Meanwhile, the care of patients has really required this caring empathy, since patients did not want to open about their diseases, did not want to do their treatment regularly because of shame and are afraid with their disease, and even did not meet their nurses because they did not like their performance.

The researcher posits that empathy is an important aspect of the caring concept that has not gained specific attention in nursing. According to the present researcher, the development of caring empathy tool is important to evaluate the activities of nurses. Various kinds of caring assessment tools have been developed. However, a tool for assessing caring that incorporates empathy as a major component in nursing has not been developed. Some of the Caring Assessment Tools like Caring Behavior Assessment Tool, Caring Efficacy Scale, Caring Professional Scale (Watson, 2008) have been developed. However, there is an empathy measurement tool, but it tends to be general, not specific in nursing.

Due to these circumstances, the researcher wanted to explore the lived experiences of Indonesian nurses on caring empathy to develop and validate an assessment tool to measure caring empathy of Indonesian nurses.

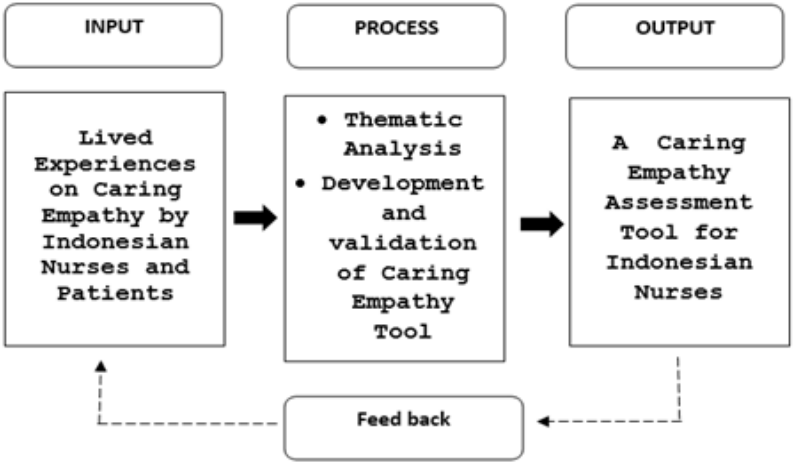
Conceptual Framework

The framework of this study used the Input-Process-Output Model. A process is viewed as a series of boxes which are known as

processing elements and connected by inputs and outputs. Figure 1 presents a contextualized IPO model based on the study.

Figure 1

Research paradigm of the study



As shown in the figure, lived experiences on caring empathy by nurses and patients were inputs in the study, through in-depth interview and observation. Thematic analysis, development, and validation of caring empathy assessment tool as the processes were done for analyzing and testing the qualitative and quantitative data, hence, the output was the Caring Empathy Assessment Tool for Indonesian Nurses.

Statement of the Problem

This study explored the participants' experiences on caring empathy to develop and validate the caring empathy assessment tool for Indonesian nurses.

Specifically, this study sought answers to the following questions:

1. What are the participants' experiences on caring empathy?
2. What are the barriers and enablers of caring empathy as experienced by the participants?

3. What tool can be developed to assess caring empathy for Indonesian Nurses?
4. How valid is the developed caring empathy assessment tool in terms of:
   4.1 content validity; and
   4.2 concurrent validity?
5. How reliable is the developed caring empathy assessment tool in terms of
   5.1 Interrater reliability;
   5.2 Intrarater reliability; and
   5.3 Inter-item reliability?
6. What are the underlying factor structures of the developed assessment tool?
7. What enhancements can be incorporated to further improve the developed tool?

METHODOLOGY

Research Design

The researcher utilized the exploratory-equential mixed method design (De Vellis, 2003) involving two phases. The first phase qualitatively explored the nurses' experiences on caring empathy. With the conduct of this study, this phase filled out the blank spot on such aspect of caring empathy in the treatment of patients since there are no known variables and no tool or instrument were available to assess the caring empathy of nurses. The second phase quantitatively utilized the results of the qualitative phase by developing and validating a Caring Empathy Assessment Tool. The outcome of this research is the caring empathy assessment tool for Indonesian nurses. Thus, the tool can be used to evaluate nurses' performance and can be used to advance the capabilities of Indonesian nurses.

Participants of the Study

The researcher set inclusion criteria for target participants during the qualitative phase of the study which include Indonesian nurses: (1) who manifested interest in participating in the study by sharing their

experiences about caring empathy during the interview; (2) currently assigned for at least one year; and (3) who can articulate and express self through the Indonesian language. Meanwhile, the inclusion criteria for patients were: 1) those who manifested interest in their experiences about caring empathy during the interview; 2) have been treated at the hospital for at least three days; 3) who can articulate and express themselves through the Indonesian language.

Furthermore the set criteria for participants during phase 2 of the study which included Indonesian Nurses in East Java Province, Indonesia were as follows: 1) those who were not interviewed during the qualitative phase of the study; (2) who gave informed consent; (3) who were up-to-date and assigned at least three months as nurses; and, (4) who can read and understand the questionnaire or tool that is written in the Indonesian language. The researcher set the criteria for the target participants with 10 nurses and 10 patients during the qualitative phase of the study and 276 nurses for the quantitative phase (for factorial analysis). Seven experts for Content validity test, two raters with 20 ratees for inter-rater reliability test, and 20 nurses for intra-rater reliability test were considered.

Instrumentation

The study utilized five instruments for data gathering, namely: individual in-depth interview (Interview Guide), observation, CEAT (Caring Empathy Assessment Tool), Caring Dimension Inventory/CDI (Watson, 2008), and Toronto Empathy Questionnaire/TEQ (Spreng, et al., 2009).

Data Gathering Procedures

In gathering the data for this study, the researcher undertook the following:

First, she sought permission from the Graduate School and Institutional Ethics Review Board of SPUP, Polytechnic of Health of Malang Indonesia, and the Chief of the Hospital in East Java Province of Indonesia which was selected as the setting of the study.

Second, she sought informed consent from the nurses and patients.

Third, she conducted in-depth interview with participants to obtain lived experiences on caring empathy. Furthermore, she used the CVI test, inter-rater reliability test, intra-rater reliability test, concurrent validity test and factorial analysis.

Fourth, the information gathered was subjected to data treatment.

Data Analysis

Data were organized, analyzed, and interpreted using the following statistical tools:

Thematic Analysis. This was used to organize qualitative responses obtained from lived experiences on caring empathy of nurses and patients.

Content Validity Index (CVI). This was used to test the validity of CEAT content by experts. A panel of content experts was asked to rate each scale item along with several dimensions such as clarity of wording, relevance of the item to the construct or to one of its dimensions, and appropriateness for the target population.

Pearson correlation coefficient. This was used to analyze the correlation between CEAT and CID scores as well as CEAT and TEQ scores.

Cohen' Kappa. This was used to estimate the inter-rater reliability and intra-rater reliability coefficient.

Cronbach's alpha coefficient. This was used to determine the scale's internal consistency reliability of the CEAT.

Exploratory factorial Analysis. This was employed to reduce the dimensionality of the original space and to give an interpretation to

the new space, spanned by a reduced number of new dimensions which were supposed to underlie the old ones.

RESULTS AND DISCUSSION

Description of nurses/patients' experiences on caring empathy

Experiences of nurses and patients on caring empathy were illuminated with two major themes, namely: 1) Caring Empathy as core behavior of the nurse-patient relationship with three subthemes: showing respect, being competent in managing care and being understanding and sensitive to patients' needs; and, 2) caring Empathy as an important quality of caring, with two subthemes: building empathic nurse-patient relationship and being responsible for actions and decisions.

Barriers and Enablers on Caring Empathy Behavior

Based on the barriers identified were: 1) organizational factor: nurse workload and lack of organizational support; 2) individual factor: less experience of nurse and character of personality; and 3) environment factors: work environment is not conducive to work and nurses using cellphones while working with patients. The enablers identified were time management of nurse, responsibility of nurses, training programs on personality development/empathy training, and judicious use of information technology.

The tool that was developed to assess caring empathy behavior

The tool that was developed to assess caring empathy behavior of Indonesian nurses is the Caring Empathy Assessment Tool (CEAT) which consists of 54 items obtained from the experiences of nurses and patients on caring empathy in various hospitals.

The individual item average CVI scores of CEAT ranges from 0.86 to 1.00, with an over-all CVI score of 0.984I. A score of I-CVIs is no lower than 0.78 and S-CVI of 0.80 or higher as acceptable (Davis, 1992; Grant & Davis, 1997; Polit & Beck, 2004 as cited in Polit & Beck, 2006).

Based on concurrent validity test, the CEAT scores had statistically significant correlation with CDI total scores r=601, (p=0.000); and, with TEQ, the score is r=0.230 (p= 0.000). It means the correlation in this domain is possible because of the similarity in the construct that was measured.

Inter-rater agreement (percentage of overall agreement) was 81%, whereas the degree of agreement among raters using Cohen's Kappa was 0.538, which means that the tool is acceptable. For the intra-rater reliability test, using Cohen's Kappa was 0.667, which means that the consistency measures are acceptable. It means that the rater's self-consistency in the scoring of the subject/tool is accepted. According to Weiner (2007), the values < 0.0 = poor, 0.00 - 0.20 = slight, 0.21 - 0.40 = fair, 0.41 - 0.60 = moderate, 0.61 – 0.80 = substantial, 0.81 – 1.00 = almost perfect. McHugh recommended 80% agreement as to the minimum acceptable interrater agreement (Wongpakarn et al., 2013).

Cronbach's alpha of the tool is 0.942, which is described as having a high degree of reliability. This means that the items in a test measure the same concept and construct and it is connected to the inter-relatedness of the items within the test. Cronbach's alpha coefficient was used to determine the scale's internal consistency reliability and founded where the coefficient of 0.70 is considered acceptable for newly developed scales, and 0.80 or higher indicates good reliability as evidence that the items may be used interchangeably (Walttz et al., 2005 as cited in Polit & Beck, 2006).

There are 5-factor structures that underline the developed assessment tool, namely:

Showing respect: the caring empathy behavior of showing respect and concern was established in a study that explored the lived experiences of nurses caring for patients which showed congruence with the findings of this study that showing respect, being kind and polite and showing patience were dominant caring behaviors of ICU nurses who showed caring empathy (Abushameh, 2018). Showing respect such as listening, affirming, serving the patient, being kind, polite, and thankful are regarded as caring empathy behaviors

according to the participants.

Being competent in managing care: Decety and Jackson (2006) as cited in Hojat (2016) described empathy as the capacity to understand and respond to the needs of others by ensuring that they demonstrate competence or the ability to render necessary care with utmost proficiency. While responding to patients, nurses are challenged to become proficient in their functions of providing care (Locsin, 2016). This notion shows that nurses are known to empathize if they can act or show competence in providing nursing care.

Being understanding and sensitive to patients' needs: the second carative factor from 10 Caritas processes in Human Caring theory, Jean Watson (2008) asserted the importance of the cultivation of sensitivity to oneself and others. By being more responsive to the patients' needs and feelings, nurses can create a more trusting-helping caring relationship (Wagner, 2010; Abushameh, 2018). In congruence with the study of Abushameh, (2018) (Laurente, 2001 in Baua, 2014) nurses who are sensitive to the needs of patients depict a positive caring value of nurses working with patients in highly technical environments like ICU and Emergency Rooms. Based on the study, nurses in the ICU described their caring as social responsibility of establishing a nurse-patient caring relationship based on mutual trust and respect, nurtured by faith and hope, being sensitive to self and understanding others' needs so that appropriate nursing care can be provided which can assist patients in the gratification of their physical, social, and emotional needs.

Building an empathic nurse-patient relationship: to build an empathic nurse-patient relationship, nurses should initiate supportive and engage in interpersonal communication to understand the perceptive needs of the patient; empower the patient to learn or cope more effectively with his or her environment and to help reduce or resolve patients' problems. The affective and empathic feelings of being warm, compassionate, or showing concern for others best demonstrate these feelings of establishing an empathic nurse-patient relationship (Dvash & Shamay-tsoory, 2014).

Being responsible for actions and decisions: the nurse has responsibility for nursing practice, especially in making decisions and be held accountable for their actions consistent with the obligation to provide optimal patient care. As a nurse, it is inherent that accountability for all aspects of care aligns with responsible decision making. Nursing decisions must be well thought, planned, and purposefully implemented responsibly. Any delegation of nursing activities or functions must be done with respect to the action and the ultimate results to occur (Haddad & Geiger, 2018).

The analysis yielded 5 factors explaining a total of 62.311% of the variance for the entire set of variables with the 38 items. However, each factor could probably be strengthened through revision (rewriting) of items with higher primary loadings, so the short version of the CEAT can be obtained.

Enhancements to improve the tool in this research include: 1) Presenting the results of research to the hospital about caring empathy behavior of nurses, barriers and enablers of caring empathy and sharing the 38 items of the CEAT; 2) Improving the CEAT through research to test confirmatory factor analysis of CEAT and evaluate caring empathy of Nurses using 38 of CEAT; and, 3) Submission of the CEAT to the Ministry of Law and Human Rights in Indonesia to obtain a "Copyright" to prevent it from plagiarism.

CONCLUSION

Caring empathy is a complex, multi-dimensional concept that involves understanding the patients' situation, perspective, and feelings. Nurses are encouraged to communicate understanding to check on the needs of patients in a caring empathic manner and act on that understanding with the patient in a helpful and trusting way.

The Caring Empathy Assessment Tool (CEAT) is a valid and reliable tool which can be utilized to assess the caring empathy behaviors of nurses. However, the tool still needs further enhancements and validation so that it can be widely used by hospitals in Indonesia. Measuring nurses' ability to provide caring empathy is imperative in

the workplace so that nurses can better understand and feel into the patients' situations in the health-illness experience. Caring empathy is a foundation in building the therapeutic nurse-patient trusting relationship as espoused by Watson in her theory of human caring.

RECOMMENDATIONS

In consideration of the findings and the conclusion of the study, the following are recommended:

For Nursing Practitioners to consider enhancing their caring empathy skills in nursing practice by attending empathy training programs to develop the art and skills of caring.

For Hospital administrators or policymakers to consider the barriers that were conveyed by nurses and afford to decrease it. The policymakers should continue supporting the staff nurses to increase staff nurses' empathy skills.

For Nurse educators to Integrate the caring empathy behavior in the subjects that they teach specifically in Fundamental in Nursing Subject to encourage an increased caring empathy behaviors among students of nursing.

For Nursing Administrators to consider using the results of this study in planning a caring empathy training program for nurses and students who practice in the hospital in collaboration with nursing educators. For Indonesian National Nurses Association (INNA) to consider supporting using CEAT to evaluate caring empathy of nurses in the hospital or Puskesmas (Community Health Center).

For The Association of Indonesian Nurse Education Center (AINEC) to consider including the material of caring empathy in the curriculum of nursing to prepare the students to practice in the hospital or community.

Acknowledgment

This research has obtained ethical approval recommendations from the Ethics Review Committee of St. Paul University Philippines and Polytechnic of Health of Malang, Indonesia. This paper has been produced as part of the requirements for the Doctor of Philosophy in Nursing Science at St. Paul University Philippines and finalized with the editing assistance provided by the University.

References

Abushameh, B.C. (2018). *Lived experience of nurses caring for post-myocardial Infarct patients* [Dissertation]. St. Paul University Philippines.

Baua, M. E. C. (2014). Faculty caring behaviors and academic performance of nursing students in a problem-based learning environment at St. Paul University Philippines. *The Light Explorer, 1*(1). https://www.thelight-explorer.com/the-light-explorer-volume-1-faculty-caring-behaviors-and-academic-performance-of-nursing-students-in-problem-based-learning-environment-at-st-paul-university-philippines/

De Vellis, R. F. (2003). *Scale development: Theory and applications (2nd ed., Vol. 26)*. Thousand Oaks, CA: Sage Publications.

Dvash, J., & Shamay-Tsoory, S. G. (2014). Theory of mind and empathy as multidimensional constructs: Neurological foundations. *Topics in Language Disorders, 34*(4), 282–295. https://doi.org/10.1097/TLD.0000000000000040

Frain, J. A. (2017). Preparing every nurse to become an HIV nurse. *Nurse Education Today, 48*, 129-133. https://doi.org/10.1016/j.nedt.2016.10.005

Haddad, L. M., & Geiger, R. A. (2018). *Nursing ethical considerations*. https://www.ncbi.nlm.nih.gov/books/NBK526054/

Hojat, M. (2016). *Empathy in health professions education and patient care*. Springer Publishing.

Martiningsih, W., Winarni, S., Harsoyo, S., Susatya, B., Hariyanto, T. (2017). Lived experiences of caring behavior among nurse counselors of HIV/AIDS in Blitar City. *SPUP International Research Conference Journal, 3*(1).

Polit, D. F., & Beck, C. T. (2006). The content validity index: are you sure you know what's being reported? Critique and recommendations. *Research in Nursing & Health, 29*(5), 489-497. https://doi.org/10.1002/nur.20147

Sedaghati Kesbakhi, M., Rohani, C., Mohtashami, J., & Nasiri, M. (2017, July 3). Empathy from the perspective of oncology nurses. *Journal of Compassionate Health Care, 4*(1). https://doi.org/10.1186/s40639-017-0036-0

Sinclair, S., Beamer, K., Hack, T. F., McClement, S., Raffin Bouchal, S., Chochinov, H. M., & Hagen, N. A. (2017). Sympathy, empathy, and compassion: A grounded theory study of palliative care patients' understandings, experiences, and preferences. *Palliative Medicine, 31*(5), 437-447. https://doi.org/10.1177/0269216316663499

Wagner, A. L. (2010). *Core concepts of Jean Watson's theory of human caring/caring science*. Watson Caring Science Institute. https://pmhealthnp.com/wp-content/uploads/2019/05/watsons-theory-of-human-caring-core-concepts-handout.pdf

Watson, J. (2008). *Assessing and measuring caring in nursing and health science: Second edition*. Springer Publishing.

Weiner, J. (2007). *Measurement: reliability and validity measures*. Baltimore: John Hopkins Bloomberg, School of Public Health.

Wongpakaran, N., Wongpakaran, T., Wedding, D., & Gwet, K. L. (2013, April 29). A comparison of Cohen's Kappa and Gwet's AC1 when calculating inter-rater reliability coefficients: a study conducted with personality disorder samples. *BMC Medical Research Methodology, 13*(1). https://doi.org/10.1186/1471-2288-13-61