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Development and validation of an instrument to measure nurses' compassion competence



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ABSTRACT

Aim: To develop and psychometrically validate the Compassion Competence Scale.

Background: Compassion is a vital asset in the nursing profession; thus, it is necessary to develop a suitable instrument for assessment.

Methods: The 49-item preliminary instrument was developed using concept analysis (hybrid model). Content and face validity were confirmed by 10 experts and 10 nurses, respectively, and the number of items was reduced to 18. The tool was tested on 660 nurses working at three tertiary hospitals in South Korea in 2013.

Results: We selected 17 items for the final scale and extracted three factors (variance explained: 55.9%): communication, sensitivity, and insight. Correlations with the Emotional Competence Scale (.68), Compassionate Love Scale (.62), and Interpersonal Reactivity Index (.41) supported the scale's convergent validity. The reliability (Cronbach's α and test–retest reliability) was acceptable.

Conclusions: The Compassion Competence Scale is a simple, effective screening tool for identifying compassion competence among nurses.

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Compassion can be defined as a deep awareness of and strong willingness to try to relieve others' suffering (Chochinov, 2007). In nursing, compassion is not limited to empathizing with patients' struggles but also means empowering them through appropriate nursing care (Dewar & Cook, 2014). By allowing nurses to understand patients' physical, spiritual, and emotional difficulties, compassion can influence responses to patient needs (Boyle, 2011; Davison & Williams, 2008). Thus, compassion can be considered a vital asset in the nursing profession (Burnell, 2009; Cornwell, Donaldson, & Smith, 2014; Öhlén & Segesten, 1998).

Compassion is a key criterion contributing to patient satisfaction with nursing care (Halldórsdóttir, 2000; Hill, 2010; Mooney, 2009; Sitzia & Wood, 1997); moreover, the characteristics of a good nurse include consideration, respect, and intimacy based on compassion (Jo, Hong, Han, & Eom, 2006). Thus, compassion allows nurses to not only establish a therapeutic relationship with patients but also provide high-quality nursing care (Dewar & Nolan, 2013). Recently, there has been a global increase in interest in compassion in the care context (Bramley & Matiti, 2014; Department of Health & NHS Commissioning Board, 2012). Nevertheless, no general agreement has been reached

regarding the criteria and methods to measure compassion competence in nurses (Proctor, 2007; Youngson, 2011).

The particular behaviors that cause patients to perceive nurses as compassionate have not been definitively examined among nurses and medical professionals (Von Dietze & Orb, 2000), and there is little research on the skills required for nurses to provide compassionate care (Schantz, 2007). Competence is a person's capacity to successfully perform the roles expected of them in a societal sense (Rychen & Salganik, 2001). Similarly, professional competence is habitual, and involves the judicious use of theoretical knowledge, practical skills, communication, clinical reasoning, emotions, values, and reflection in daily practice (Epstein & Hundert, 2002). In line with this, nurses must possess certain competencies, comprising knowledge, skills, and attitudes, to provide high-quality care based on patient demands (Scott Tilley, 2008). Thus, we conducted a concept analysis using a hybrid model to clearly understand the concept of compassion competence for nurses. This allowed us to not only identify theoretical phenomena that are important to nursing via an analysis of the available literature, but also collect empirical data via clinical fieldwork. As such, concept analysis is considered appropriate for eliciting concepts from nursing practice (Schwartz-Barcott & Kim, 2000).

In addition, an instrument measuring compassion competence based on the relevant knowledge, skills, and attitudes for nursing practice must be developed. Such an instrument would enable accurate evaluation of compassion competence in nurses, which would in turn aid educational efforts in improving nurse compassion and thereby encourage better quality nursing care. Using the definition and attributes

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derived from the hybrid model, we developed such an instrument to measure compassion competence in nurses.

1. How to measure nurses' compassion competence

Previous work on the development of measures of compassion has been limited to the Compassion Scale (Martins, Nicholas, Shaheen, Jones, & Norris, 2013) and Compassionate Love Scale (Sprecher & Fehr, 2005), which were tested on university populations. However, as reported by Yeo (2012), nurses' compassion has been measured in multidimensional ways since the 1980s. The Empathy Construct Rating Scale (La Monica, 1981) is particularly common in nursing research and is designed to measure individuals' cognitive attributes and communicative skills in relation to empathy (Yu & Kirk, 2009). However, this instrument is limited in that the only behavior it measures is nurses' communication skills (Yu & Kirk, 2009), while compassion in nursing includes other behaviors, such as recognizing and exhibiting sensitivity to patients' distress and acting to ease their difficulties and increase relief (Burnell, 2009). Therefore, evaluations of compassion competence in nurses must comprehensively assess related behaviors.

2. Methods

2.1. Study design/research approach

We developed and validated in three phases the Compassion Competence Scale (CCS) for use with practicing nurses in Korea (see Fig. 1).

2.2. Phase one: Concept analysis of compassion competence

Phase one involved construct identification based on concept analysis, using the three phases (theoretical, fieldwork, analytical) of Schwartz-Barcott and Kim's (2000) hybrid model.

In the theoretical phase, we carried out a thorough review of the literature, focusing on the attributes of nurses' compassion competence, measurement methods, and relationships among relevant concepts. We entered main concept subject terms, such as "compassion," "compassion competence," and "compassionate care," into scholarly databases, including the Cumulative Index to Nursing and Allied Health Literature, Ovid MEDLINE, PubMed, Embase, and Google Scholar. The scope of literature considered included dictionaries, theses, journal articles, and books. The area of study was mainly nursing but also included various other related disciplines, such as medical science, business administration, sociology, and education. The publication period of the literature considered ranged from 1986, when the term "compassion competence" was first used by McCartney, to October 2013. Those for which full texts were available in Korean or English were selected, titles and abstracts were reviewed to include only those that included a definition of the term "compassion," and then the 23 records that reported the conceptual definition and attributes of "compassion competence of nurses" were included.

Based on the previous literature, the conceptual definition of compassion competence was as follows: first, nurses who have respect for and can emphasize with patients based on their professional nursing knowledge. Second, nurses who can connect and communicate with patients emotionally and with sensitivity and insight, based on their experience and knowledge. Third, nurses who put constant effort into self-

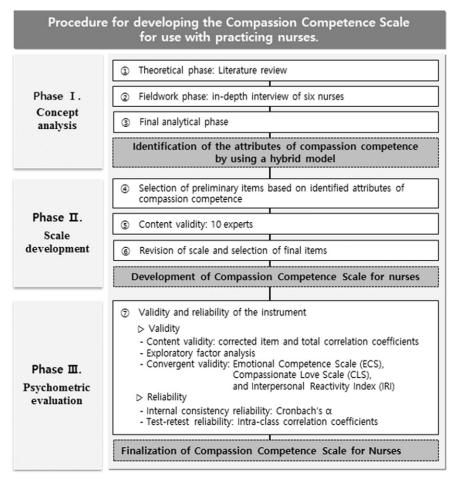


Fig. 1. Research procedure.

development. Ten attributes (i.e., professional knowledge, constant learning, communication, sensitivity, insight, self-awareness, self-management, respect, empathy, and maintenance of professional distance) were identified in the theoretical phase.

In the fieldwork phase, the participant selection criteria were as follows: (1) nurses working at university hospitals or general hospitals with over 300 beds in Seoul or Gyeonggi-do, Korea; (2) nurses currently caring for patients; and (3) nurses willing to report their experiences with caring for patients. The criterion for exclusion was working on administrative tasks rather than directly caring for patients.

Following the suggestion of Schwartz-Barcott and Kim (2000), from July to October 2013, eight in-depth interviews (four by phone, two by email, and two in person) were conducted with each of six nurses working in the emergency response (ER) department, intensive care unit (ICU), and hematology-oncology unit of three hospitals; these departments were chosen on the basis of previously reported results (see also Badger & Royse, 2012; Hwang & Kim, 2000; Jo et al., 2006). Participants were selected for interviews with the permission of the clinical manager in charge of human resources at each hospital. Furthermore, as interviews and analyses were conducted simultaneously, additional data to be collected in follow-up interviews were determined based on the analytical results.

The detailed interview procedure was as follows: first, participants were fully informed of the study purpose and aims. To confirm their agreement to take part, a nursing manager at the medical institutions to which participants belonged conducted the first phone interview to obtain nurses' agreement. In a second phone interview, the researchers confirmed nurses' agreement and explained the study procedure. In the first email interview, participants were given the definitions of compassion and compassion competence. One week before the in-depth interview, a second email interview was performed to provide participants with the questions that they were to answer (see Appendix 1). The in-depth interview was conducted face-to-face, twice for each participant (50–210 min each time). The next day, a researcher assessed whether additional information was needed. When transcribing the interviews, the researcher contacted the participants by phone, as required, to request additional clarification regarding their answers.

For the analytical phase, a constant comparative analysis (Attride-Stirling, 2001) was carried out to confirm whether the areas and attributes of compassion competence that we had identified in the theoretical phase were in accord with those identified during the fieldwork. First, data reduction was achieved by coding meaningful text with the use of a codebook. This involved defining and classifying the concepts and experiences reported by the nurses during the interviews. Second, we determined the relationships among the categories and subcategories of these codes. Finally, the main attributes were selected from participants' experiences and their relationships were delineated. Data were conceptualized in terms of these central attributes. Ultimately, eight attributes in three areas were identified, with one in the area of knowledge (extensive knowledge acquired through education and experience), four in the area of skill (emotional communication, sensitivity, insight, and self-control), and three in the area of attitude (respectful attitude, empathy, and maintenance of professional distance).

The final phase involved examining empirical referents based on the derived attributes—in other words, conceptual clarification through integrating the literature results and fieldwork findings. Empirical referents are indicators that enable a concept's theoretically derived attributes to be observed in the form of actual phenomena, and then measured. They are very useful for increasing content and construct validity during the development of a new instrument (Walker & Avant, 2010). We first examined the attributes of the concept as identified in the theoretical and fieldwork phases by comparing how well-matched they were, in order to reestablish the definition and attributes of compassion competence for nurses in clinical practice.

2.3. Phase two: Development of the Compassion Competence Scale

2.3.1. Participants and procedure

From the identified eight attributes of compassion competence, an initial 49-item instrument was designed. Ten experts (three professors of nursing management, four administrators who had managed nursing staff for more than 1 year, and three nurses who had worked for over 10 years in hospitals) evaluated its content validity. We calculated the item-level content validity index (CVI) using a 4-point ordinal rating scale (1 = irrelevant, 2 = unable to assess the relevance without itemrevision, 3 = relevant with minor alterations, 4 = extremely relevant). Thirty-one items received a score under the minimum of 80%, indicating agreement between the reviewers that these items scored under 3 points; thus, they were excluded. The remaining 18 items, which received a score above 80%, were revised and supplemented following a face validity test conducted by 10 nurses. Revision involved checking items that were difficult to answer or understand, and identifying vague words. Long sentences in measurement items decrease readability (DeVellis, 2011); therefore, we revised longer items in order to deliver sufficient meaning while excluding unnecessary or vague words.

2.4. Phase three: Validation and reliability evaluation of the Compassion Competence Scale

2.4.1. Setting and participants

The setting of this study was three tertiary hospitals in South Korea. To examine the validity and reliability of the instrument, 710 nurses who worked in general wards, the ER department, and the ICU were selected as participants.

2.4.2. Data collection and procedure

Data were collected from October to November 2013. Of the initial 710 nurses, 691 (97.3%) responded and, after excluding incomplete questionnaires, the final sample included 660. A desirable sample size includes more than five times the total number of items (i.e., the original 49 items: Terwee et al., 2007): thus, we met this requirement.

After informed consent was obtained from interested participants, the CCS was self-completed on paper. Participants who took part in the first survey (time 1) and voluntarily agreed to participate in the second survey, completed the instrument again 2 weeks later (time 2). Of surveys collected at time 2, 163 (24.7%) were used for data analysis because they had no missing items and were paired in the test–retest procedure using demographic information, such as participants' affiliated department, age, and years of work experience.

2.4.3. Data analysis

Data were entered into SPSS version 18.0 for analysis. Participants' demographic characteristics were analyzed using descriptive statistics, e.g., percentage, frequency, mean, and standard deviation. Based on experts' ratings, the instrument's content validity was derived by calculating the CVI. The construct validity of the instrument was examined by using item, factor, and convergent validity analyses. The item analysis involved selecting only those items for which the item-total correlation exceeded .3. The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were used to determine if the correlations were appropriate for factor analysis. Exploratory factor analysis (EFA) was then conducted to investigate construct validity by using principal axis factoring with a promax rotation to extract factors from the 18 items. The criteria for selection included factor loadings with an absolute value > .30 and acceptable scree test results. For convergent validity, we analyzed Pearson's correlations between CCS scores and scores on the Emotional Competence Scale (ECS; Park & Lee, 2011), Compassionate Love Scale (CLS; Sprecher & Fehr, 2005), and Interpersonal Reactivity Index (IRI; Davis, 1983). The reliability was calculated using Cronbach's α and intra-class correlation coefficients of the testretest results.

2.4.4. Measures

We used the following instruments to examine the CCS's convergent validity. Cronbach's alpha coefficients for these three measures were .96 (ECS), .87 (CLS), and .85 (IRI).

Emotional Competence Scale (ECS). The ECS was developed and validated by Park and Lee (2011) and based on the concept of emotional competence (Boyatzis, Goleman, & Rhee, 2000; Goleman, 1995). The 20 items are rated on a 5-point Likert-type scale.

Compassionate Love Scale (CLS). The CLS was developed by Sprecher and Fehr (2005) and is commonly used for measuring compassion; its reliability and validity have been supported in previous studies. The instrument contains 21 items rated on a 7-point Likert-type scale. Three versions of the CLS exist, for use with different targets (family and friends, stranger/humanity, and a specific close other). This study used version 3, which is designed for assessing participants' perception about a specific close other's need to receive professional help.

Interpersonal Reactivity Index (IRI). The IRI was originally developed by Davis (1983) and then validated by Park (1994) for use with Korean tertiary nursing students. It contains 28 items that are rated on a 5-point Likert-type scale.

2.4.5. Ethical considerations

Ethical approval was obtained from the institutional ethics review board of the researcher's university. All questionnaires were completed anonymously.

3. Results

3.1. Participants

Participants included 656 females (99.4%) and four males (0.6%), with an average age of 28.3 years (SD = 5.0, range 20–52). The number of unmarried participants (n = 498, 75.8%) was greater than the number of married ones. Most participants (n = 600, 90.9%) had received a bachelor's degree. The average work experience was 5.8 years

(SD = 4.8, range 0.1–31.2), while the average time in the current position was 4.7 years (SD = 3.8, range 0.1–23.8).

3.2. Construct validity

3.2.1. Item analysis

The measurement items revealed item-total correlation coefficients > .30. Content analysis, conducted by calculating the corrected item-total correlation coefficients and the coefficients of the preliminary 17 items, showed a correlation distribution from .306 to .649.

3.2.2. Factor analysis

EFA was carried out for the 18 items selected by the content analysis. The KMO measure of sampling adequacy was high (.94) and Bartlett's test of sphericity showed a significant p value ($\chi^2=5012.419$, p<.001); both indicate that the data were appropriate for EFA. To ensure the best fit for the analysis model, we rotated the data using promax (i.e., oblique) rotation because correlations between factors were assumed (Lee et al., 2009).

The EFA resulted in three factors being extracted from the 18 items. We then combined and modified the factors by reviewing their characteristics (i.e., factor loadings) and how well they fit with the attributes obtained in the concept analysis. The item "I can evaluate my attitude toward patients very well" was excluded because its factor loading was below .30, and we conducted another EFA for the remaining 17 items. The KMO value (.94) was acceptable and Bartlett's test of sphericity showed that the p value was significant ($\chi^2 = 4756.323$, p < .001), indicating that the correlations were fit for factor analysis. Three factors were again extracted; ultimately, all 17 items were included in the instrument.

The three factors, which were constructed according to the theoretical framework and factor loadings, were as follows: communication (eight items), sensitivity (five items), and insight (four items). One item ("When communicating with patients, I respond to them with proper nonverbal presentation") that was originally included in the sensitivity factor was moved to the communication factor because it seemed more appropriate. No other items moved between factors.

Table 1 Factor analysis results.

Factor		Items		Factor loading		
			F1	F2	F3	
Communication (eight items)	1	I can express my compassion toward patients through communication with them.	.783	.002	.034	
	2	I am aware of how to communicate with patients to encourage them.	.779	149	.170	
	3	In conversation, I have a sense of humor to induce a good mood in patients.	.771	138	.055	
	4	Patients express their concerns and difficulties about diseases to me.	.620	.029	.082	
	5	I try to support patients through nursing to help them overcome their problems.	.571	.113	.109	
	6	When communicating with patients, I respond to them with proper nonverbal presentation.	.452	.468	.186	
	7	I participate in education to develop interpersonal relationship skills with patients, colleagues, etc.	.360	.083	.176	
	8	I can provide the required emotional support to patients appropriately.	.334	.215	.212	
Sensitivity (five items)	1	I am careful in my speech and behaviors so as to avoid hurting my patient's feelings.	.195	.719	.125	
	2	I always pay attention to what patients say.	.393	.602	.234	
	3	I promptly respond to patients when they ask for attention.	.111	.506	.304	
	4	I am tolerant of others' opinions.	.002	.475	.165	
	5	I am well aware of changes in patients' emotional condition.	.086	.351	.300	
Insight (four items)	1	I am intuitive about patients because of my diverse clinical experience.	.077	.055	.616	
	2	I offer customized care to patients by taking their characteristics into consideration.	.131	.048	.591	
	3	I look after patients without being influenced by personally challenging situations.	.095	.179	.404	
	4	I can empathize well with patients' difficulty.	.222	.182	.310	
Eigenvalue			7.348	1.130	1.033	
Variance explained			43.222	6.645	6.076	
Cumulative variance explained			43.222	49.867	55.943	

Table 2Convergent validity of the CCS.

CCS		ECS		CLS		IRI	
Mean ± SD (min-max; 1-5)		Mean ± SD (min-max; 20-100)	r	Mean ± SD (min-max; 21-147)	r	Mean ± SD (min-max; 28-140)	r
Total CCS Factor 1. Communication Factor 2. Sensitivity Factor 3. Insight	$3.61 \pm 0.43 (2-5)$ $3.60 \pm 0.47 (2-5)$ $3.67 \pm 0.47 (2-5)$ $3.56 \pm 0.50 (2-5)$	66.46 ± 7.23 (40–100)	0.68* 0.65* 0.56* 0.57*	91.93 ± 16.55(42–147)	0.62* 0.62* 0.52* 0.46*	87.91 ± 6.34(66-106)	0.41* 0.38* 0.39* 0.29*

Note. N = 660. CCS = Compassion Competence Scale; ECS = Emotional Competence Scale; CLS = Compassionate Love Scale; IRI = Interpersonal Reactivity Index.

The cumulative variance explained by these three factors was 55.94% (see Table 1).

3.2.3. Convergent validity

To verify the convergent validity, we calculated correlations between the CCS and ECS, CLS, and IRI; all were statistically significant (p < .01; see Table 2).

3.3. Reliability

With regard to internal consistency reliability, the Cronbach's alpha estimate was .91 for the instrument as a whole and .88 for communication, .77 for sensitivity, and .73 for insight subscales. The test–retest reliability for the developed instrument was .80 (p < .001).

4. Discussion

According to a concept analysis using the hybrid model, we clarified the attributes of compassion competence in nurses, then designed a 17-item valid and reliable self-administered scale for assessing compassion competence—the CCS. Of the initial 49 items, 32 were excluded because our expert group suggested that the items did not appropriately assess compassion competence. In line with a previous study conclusion (Martins et al., 2013), our experts suggested that while compassion is not directly observable or measurable, it can be estimated through particular behaviors or actions. Hence, the newly developed CCS is mainly based on assessments of nurses' skills rather than their knowledge and attitudes.

We extracted three factors from the items and defined them according to the attributes yielded from the concept analysis. The first factor, communication, refers to expressing understanding and compassion toward patients and their families. Subareas included emotional communication, as identified in the concept analysis, as well as knowledge acquired through education and experience (i.e., constant involvement in education for the development of skilled interpersonal relationships). Communication also requires the maintenance of professional distance to provide patients and their families with encouragement and emotional support. Dewar and Nolan (2013), in investigating compassionate relationship-centered care with an emphasis on patients and nurses, reported that appreciative and caring conversations facilitate patient-oriented compassionate care and influence the quality of care. Moreover, they reported that this attribute enables the relationship between patient and nurse to become therapeutic. Thus, nurses can care about patients and engage in compassionate communication with them by being concerned about who these patients are and what matters to them, and how patients feel about their experiences.

The second factor, *sensitivity*, refers to the ability to recognize—through careful observation—and react to changes in patients' emotions. Raphael (1981) reported that giving comfort requires

having compassionate sensitivity toward patients' difficulties and emotions. Moreover, Halldórsdóttir (2012) stated that as part of compassion competence, nurses should not only pay attention to patients and families, but also be attentive in listening and reacting to them. Suggested behaviors in this regard include being accommodating and attentive to patients and families, spending time with patients, and being deeply and sincerely concerned about patients. In order to improve their sensitivity skills, nurses must develop the ability to pay complete attention to and observe patients. It is also necessary to promptly meet patients' needs, actively listen to them, and be willing to make contingency plans to address possible future problems.

The third factor, *insight*, refers to the ability to clearly understand patients and to comprehensively realize their needs and conditions based on professional knowledge. This deep awareness of patients' needs is based in empathy, which is itself associated with a sincere compassionate desire to help people or alleviate their suffering (Ricard, Lutz, & Davidson, 2014). Subareas of insight included a respectful attitude to consider the needs of patients and self-control to manage nurses' own emotions during patient care. Similarly, Jang (2000) reported that attributes such as understanding patients and being patientoriented are derived from factors associated with esthetic nursing competence. However, nurses must also be insightful in recognizing and reacting to patients' unexpressed emotions and changes in order to provide compassionate care. Burnell (2009) and Lown, Rosen, and Marttila (2001) reported that it is necessary to deeply respect patients and provide customized medical service and care by recognizing that they are individuals. Lown et al. (2011) reported that patients perceive compassionate care as being respectful to patients, collecting individual information to gain a better understanding of patients, and getting patients engaged in the process of treatment and caring plans by accommodating patients' opinions. This requires insight developed from professional knowledge, diverse clinical experience, education, and training. Bray, O'Brien, Kirton, Zubairu, and Christiansen (2014) developed a professional training program for skilled compassionate experts that included instructional content to strengthen nurses' insight and enable in-depth understanding of patients, which we believe would be beneficial.

Correlation analysis of the convergent validity among the CCS and other relevant measures showed that the largest correlation was seen with emotional competence, which combines emotional intelligence with competence and explicitly represents actual skills and behavioral ability (Zeidner, Roberts, & Matthews, 2008). Emotional competence is significant in that the concept implies both changeability and teachability (Giardini & Frese, 2008). In this study, the concept of nurses' compassion, a term used alongside empathy and sympathy in clinical practice, was applied to the framework of competence in terms of knowledge, skill, and attitude; thus, our findings can be utilized as a primary resource for the assessment and education of human resources in nursing. Jazaieri et al. (2013) conducted a randomized control study of 100 adults and found that the ability to feel compassion was developed by education and training through a 9-week meditation program. This implies that nurses' compassion competence toward patients can be

^{*} p < .01.

strengthened, and that it can be measured by using the CCS developed in this study. Moreover, this instrument can also be utilized as a starting point to prepare for education and intervention to strengthen compassion competence.

The reliability of the CCS was over .90, which is the suggested cut-off value for sociopsychological instruments (Lee et al., 2009). The instrument's consistency was examined using test-retest reliability, although the generalizability of the findings is limited because only about 20% of the original sample participated in the second survey. Increasing the number of participants for test-retest purposes is necessary for future studies. Additionally, for robust verification of the CCS's content validity, re-verification must be conducted with experts on the topic of compassion and patients who received compassionate care in a clinical setting.

Another limitation of this study is that the CCS was developed and tested in Korean. A future aim is to validate and test this instrument in English for wider use. Furthermore, this study was conducted using a sample of nurses from a single culture. In the future, we intend to evaluate the compassion competence of nurses in clinical practice across a variety of cultures and subjects, including both student nurses and novice nurses.

Ethical approval

Ethical permission was granted by the authorities of the participating hospital in South Korea, and the study was also approved by the institutional ethics review boards of the researcher's university (#13-94-A-1).

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Appendix 1. In-depth interview questionnaire items

Please tell us about 1) the compassionate care you displayed while you were caring for the patients, and 2) nurses' compassion competence based on your experience in the field.

Compassionate care

- Have you displayed special compassion related to a patient's condition, situation, or requirements?
- Under which situations do you usually feel compassionate toward a
 patient? Can you give us more detail about this? How has this compassion affected your nursing practice? When you feel compassionate
 toward a patient, how do you express this in nursing practice?

Compassion competence

- What kind of competency does a nurse need to provide compassionate care to patients?
- What competence related to awareness and attitude do you think nurses need in order to provide the compassionate care to patients?
- What do you think is the needed competence related to nursing practice?
- What do you think is the needed competence related to nurses' communication and personal relationships?
- (Your case) What kind of competency is required for a nurse to perform compassionate care?
- (Benchmarking case) Do you know of an exemplary case of a nurse displaying compassion competence? Please describe this in detail.
- (Contrasting case) Do you know of an exemplary case of a nurse lacking compassion competence? Please describe this in detail.

Appendix 2. Compassion Competence Scale.

No.	Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I can express my					
	compassion toward					
	patients through					
	communication with them.					
2	I am aware of how to					
	communicate with patients					
	to encourage them.					
3	In conversation, I have a					
	sense of humor to induce a					
	good mood in patients.					
4	Patients express their					
	concerns and difficulties					
	about diseases to me.					
5	I try to support patients					
	through nursing to help					
	them overcome their					
_	problems.					
6	When communicating with					
	patients, I respond to them					
	with proper nonverbal					
7	presentation. I participate in education to					
	develop interpersonal					
	relationship skills with					
	patients, colleagues, etc.					
8	I can provide the required					
_	emotional support to					
	patients appropriately.					
9	I am careful in my speech					
	and behaviors so as to avoid					
	hurting my patient's					
	feelings.					
10	I always pay attention to					
	what patients say.					
11	I promptly respond to					
	patients when they ask for					
	attention.					
12	I am tolerant of others'					
	opinions.					
13	I am well aware of changes					
	in patients' emotional					
	condition.					
14	I am intuitive about					
	patients because of my					
1.5	diverse clinical experience.					
15	I offer customized care to patients by taking their					
	characteristics into					
	consideration.					
16	I look after patients without					
10	I JOOK ATTEL PATIETIES WITHOUT					

Directions: Read the following 17 items and check $[\checkmark]$ the response that applies to you for each item. There is no right or wrong answer. Respond to all items, but do not spend too much time thinking about your answers. You must check only one response from the five options (strongly agree, agree, neutral, disagree, or strongly disagree). The total score is calculated as the average value of each item (e.g., 3.5).

References

being influenced by

patients' difficulty.

personally challenging situations.

I can empathize well with

Attride-Stirling, J. (2001). Thematic networks: An analytic tool for qualitative research. Qualitative Research, 1, 385–405. http://dx.doi.org/10.1177/146879410100100307. Badger, K., & Royse, D. (2012). Describing compassionate care: The burn survivor's perspective. Journal of Burn Care & Research, 33, 772–780. http://dx.doi.org/10.1097/BCR.0b013e318254d30b.

- Boyatzis, R. E., Goleman, D., & Rhee, K. S. (2000). Clustering competence in emotional intelligence: Insights from the Emotional Competence Inventory (ECI). In R. Bar-On, & D. A. Parker (Eds.), Handbook of emotional intelligence (pp. 343–362). San Francisco, CA: lossev-Bass.
- Boyle, D. (2011). Countering compassion fatigue: A requisite nursing agenda. Online Journal of Issues in Nursing, 16http://dx.doi.org/10.3912/OJIN.Vol16No01Man02.
- Bramley, L., & Matiti, M. (2014). How does it really feel to be in my shoes? Patients' experiences of compassion within nursing care and their perceptions of developing compassionate nurses. *Journal of Clinical Nursing*, 23, 2790–2799. http://dx.doi.org/10.1111/jocn.12537.
- Bray, L., O'Brien, M. R., Kirton, J., Zubairu, K., & Christiansen, A. (2014). The role of professional education in developing compassionate practitioners: A mixed methods study exploring the perceptions of health professionals and pre-registration students. *Nurse Education Today*, 34, 480–486. http://dx.doi.org/10.1016/j.nedt.2013.06.017.
- Burnell, L. (2009). Compassionate care: A concept analysis. Home Health Care Management & Practice, 21, 319–324. http://dx.doi.org/10.1177/1084822 309331468.
- Chochinov, H. M. (2007). Dignity and the essence of medicine: The A, B, C, and D of dignity conserving care. *BMJ*, 335, 184–187. http://dx.doi.org/10.1136/bmj.39244. 65002647
- Cornwell, J., Donaldson, J., & Smith, P. (2014). Nurse Education Today: Special issue on compassionate care. *Nurse Education Today*, 34, 1188–1189. http://dx.doi.org/10. 1016/i.nedt.2014.06.001.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44, 113–126. http:// dx.doi.org/10.1037/0022-3514.44.1.113.
- Davison, N., & Williams, K. (2008). Compassion in nursing. 1: Defining, identifying and measuring this essential quality. *Nursing Times*, 105, 16–18.
- Department of Health and NHS Commissioning Board (2012). Compassion in practice: Nursing midwifery and care staff: Our vision and strategy. London, UK: Author.
- DeVellis, R. F. (2011). Scale development: Theory and applications (2nd ed.). Newbury Park, CA: Sage.
- Dewar, B., & Cook, F. (2014). Developing compassion through a relationship centered appreciative leadership programme. *Nurse Education Today*, 34, 1258–1264. http://dx.doi.org/10.1016/j.nedt.2013.12.012.
- Dewar, B., & Nolan, M. (2013). Caring about caring: Developing a model to implement compassionate relationship centred care in an older people care setting. *International Journal of Nursing Studies*, 50, 1247–1258. http://dx.doi.org/10.1016/j. iinurstu.2013.01.008.
- Epstein, R. M., & Hundert, E. M. (2002). Defining and assessing professional competence. JAMA, 287, 226–235. http://dx.doi.org/10.1001/jama.287.2.226.
 Giardini, A., & Frese, M. (2008). Linking service employees' emotional competence to cus-
- Giardini, A., & Frese, M. (2008). Linking service employees' emotional competence to customer satisfaction: A multilevel approach. *Journal of Organizational Behavior*, 29, 155–170. http://dx.doi.org/10.1002/job.509.
- Goleman, D. P. (1995). Emotional intelligence: Why it can matter more than IQ for character, health and lifelong achievement. New York, NY: Bantam.
- Halldórsdóttir, S. (2000). Feeling empowered: A phenomenological case study of the lived experience of health. In B. Fridlund, & C. Hildingh (Eds.), Qualitative methods in the service of health (pp. 82–96). Lund, Sweden: Studentlitteratur.
- Halldórsdóttir, S. (2012). Caring theories articles—nursing as compassionate competence: A theory on professional nursing care based on the patient's perspective. *International Journal for Human Caring*, 16, 7–19.
- Hill, R. (2010). Compassion, quality and standards of care. Nurse Prescribing, 8, 100–101.
 Hwang, H. N., & Kim, K. B. (2000). The lived experiences of inpatients' families in the intensive care units. Journal of Korean Academy of Adult Nursing, 12, 175–183.
- Jang, K. (2000). A study on the establishment of a clinical career development model of nurses. (Unpublished doctoral dissertation) Seoul, Republic of Korea: Yonsei University.
- Jazaieri, H., Jinpa, G. T., McGonigal, K., Rosenberg, E. L., Finkelstein, J., Simon-Thomas, E., et al. (2013). Enhancing compassion: A randomized controlled trial of a compassion cultivation training program. *Journal of Happiness Studies*, 14, 1113–1126. http://dx.doi.org/10.1007/s10902-012-9373-z.

- Jo, N. O., Hong, Y. S., Han, S. S., & Eom, Y. L. (2006). Attributes perceived by cancer patients as a good nurse. Clinical Nursing Research, 11, 149–162.
- La Monica, E. L. (1981). Construct validity of an empathy instrument. *Research in Nursing & Health*, 4, 389–400. http://dx.doi.org/10.1002/nur.4770040406.
- Lee, E. O., Im, N. Y., Park, H. A., Lee, I. S., Kim, J. I., & Bae, J. I. (2009). Nursing research and statistical analysis. Seoul, Republic of Korea: Soomoonsa.
- Lown, B. A., Rosen, J., & Marttila, J. (2001). An agenda for improving compassionate care: A survey shows about half of patients say such care is missing. *Health Affairs*, 30, 1772–1778. http://dx.doi.org/10.1377/hlthaff.2011.0539.
- Martins, D., Nicholas, N. A., Shaheen, M., Jones, L., & Norris, K. (2013). The development and evaluation of a compassion scale. *Journal of Health Care for the Poor and Underserved*, 24, 1235–1246.
- Mooney, H. (2009). Can you measure compassion? Retrieved from http://www.nursingtimes.net/whats-new-in-nursing/management/can-you-measure-compassion/5000543.article
- Öhlén, J., & Segesten, K. (1998). The professional identity of the nurse: Concept analysis and development. *Journal of Advanced Nursing*, 28, 720–727. http://dx.doi.org/10. 1046/j.1365-2648.1998.00704.x.
- Park, S. H. (1994). Empathy. Seoul, Republic of Korea: Won Mi Sa.
- Park, T., & Lee, H. J. (2011). The effects of public officials' sociological variables on their emotional competence in the Korean central government. Korea Public Administration Review, 45, 1–26.
- Proctor, S. (2007). Can nurses show compassion? Nursing Management, 14, 10-11.
- Raphael, B. (1981). Personal disaster. Australian & New Zealand Journal of Psychiatry, 15, 183–198. http://dx.doi.org/10.3109/00048678109159434.
- Ricard, M., Lutz, A., & Davidson, R. J. (2014). Mind of the meditator. *Scientific American*, 311, 38–45. http://dx.doi.org/10.1038/scientificamerican1114-38.
- Rychen, D. S. E., & Salganik, L. H. E. (2001). Defining and selecting key competencies. Ashland, OH: Hogrefe & Huber.
- Schantz, M. L. (2007). Compassion: A concept analysis. Nursing Forum, 42, 48–55. http://dx.doi.org/10.1111/j.1744-6198.2007.00067.x.
- Schwartz-Barcott, D., & Kim, H. S. (2000). An expansion and elaboration of the hybrid model of concept development. In B. L. Rodgers, & K. A. Knafl (Eds.), Concept development in nursing: foundations, techniques, and applications (pp. 129–159) (2nd ed.). Philadelphia. PA: Saunders.
- Scott Tilley, D. D. (2008). Competency in nursing: A concept analysis. Journal of Continuing Education in Nursing. 39, 58–64.
- Sitzia, J., & Wood, N. (1997). Patient satisfaction: A review of issues and concepts. Social Science & Medicine, 45, 1829–1843. http://dx.doi.org/10.1016/S0277-9536(97)00128-7.
- Sprecher, S., & Fehr, B. (2005). Compassionate love for close others and humanity. *Journal of Social and Personal Relationships*, 22, 629–651. http://dx.doi.org/10.1177/0265407505056439
- Terwee, C. B., Bot, S. D. M., de Boer, M. R., van der Windt, D. A. W. M., Knol, D. L., Dekker, J., et al. (2007). Quality criteria were proposed for measurement properties of health status questionnaires. *Journal of Clinical Epidemiology*, 60, 34–42. http://dx.doi.org/10.1016/j.jclinepi.2006.03.012.
- Von Dietze, E., & Orb, A. (2000). Compassionate care: A moral dimension of nursing. *Nursing Inquiry*, 7, 166–174. http://dx.doi.org/10.1046/j.1440-1800.2000.00065.x.
- Walker, L. O., & Avant, K. C. (2010). Strategies for theory construction in nursing (5rd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Yeo, J. Y. (2012). Validation of the Korean Version of the Empathy Quotient-Short form. Journal of the Korea Academia-Industrial Cooperation Society, 13, 5356–5363. http://dx.doi.org/10.5762/KAIS.2012.13.11.5356.
- Youngson, R. (2011). Compassion in healthcare—The missing dimension of healthcare reform. In I. Renzenbrink (Ed.), Caregiver stress and staff support in illness, dying, and bereavement (pp. 49–61). New York, NY: Oxford University Press.
- Yu, J., & Kirk, M. (2009). Evaluation of empathy measurement tools in nursing: Systematic review. *Journal of Advanced Nursing*, 65, 1790–1806. http://dx.doi.org/10.1111/j. 1365-2648.2009.05071.x.
- Zeidner, M., Roberts, R. D., & Matthews, G. (2008). The science of emotional intelligence: Current consensus and controversies. *European Psychologist*, 13, 64–78. http://dx.doi.org/10.1027/1016-9040.13.1.64.