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Validity of the Korean Interpersonal Caring Behavior Scale (ICBS) for Clinical Nurse

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임상간호사를 위한 한국형 대인돌봄행위 측정도구의 타당성

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Abstract This study attempted to develop a scale that Interpersonal Caring Behavior Measurement Tool, based on Kim's Interpersonal caring theory, and confirmed its reliability and validity. The items were used as 50 items of 10 concepts based on the Su-ji Kim's interpersonal care theory in Korea developed by Seon-hee Yun. Subjects were nurses working at a general hospital or higher, who agreed to participate in this study. As a result of the study, 50 questions in 10 concepts of the first were derived from active listening, accepting, complimenting, noticing, and companioning through exploratory and confirmatory factor analysis, and criterion validity and reliability were verified. This tool is meaningful in that it can measure Caring Behavior from the perspective of the subject and family, and can be used as an index to visualize the quality improvement of nursing care by quantifying it.

Key Words : Caring, Nurses, Communication, Compassion, Validity

요 약 본 연구는 김수지의 사람 돌봄 이론을 기반으로 사람 돌봄 행위 측정도구의 신뢰도와 타당도 검증을 위해 시도되었다. 연구방법은 김수지의 사람 돌봄 이론을 통해 윤선희가 개발한 10개 개념에서 각 5문항씩 50문항으로 구성된 도구를 사용하였다. 대상자는 종합병원이상에서 근무하고 있는 간호사로서 본 연구 참여에 동의한 자로 하였다. 연구결과 탐색적, 확인적 요인분석을 통해 최초10개 개념의 50개 문항이 적극적 경청, 수용, 칭찬, 알아봄, 동행의 5개 개념, 32개 문항으로 도출되었고, 준거타당도, 신뢰도가 검증되었다. 이 도구는 대상자와 가족의 관점에서 돌봄 행위를 측정할 수 있으며, 이를 수량화함으로써 간호의 질적 향상을 가시화하는 지표로 활용할 수 있다는 점에 의의가 있다.

주제어 : 돌봄, 간호사, 의사소통, 연민, 타당도

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1. Introduction

1.1 Need for research

Caring is a universal human phenomenon, and it is a universal human existence that is essential for growth, development, and survival[1]. This kind of care can be effectively demonstrated and performed in any situation and between people in interpersonal relationships. In particular, care is an important element of nursing because it becomes a nursing act that must be professionally performed for sick patients by nurses.In nursing, caring is a life experience that strengthens the treatment process through nurturing interpersonal relationships through interaction and communication between the nurse and the subject, who express concern and interest for the purpose of protection [2]. Caring behavior refers to the fact that when caring is present in human interaction, it promotes specific behaviors and behaviors in all situations. Since these caring behaviors can be identified as measurable behaviors and behaviors[3], it has been studied for the education and training of nurses and nursing students and the application of nursing interventions.

Kim Su-ji, a domestic nursing scholar, has a person care theory inductively constructed from the perspective of patients based on their personal experiences of being cared for by a nurse, and in the form of patient-centered, patient-focused, and patient-oriented care in the nurse-patient relationship. Interpersonal care research in the relationship between nurses and patients presents the real world of caring and contributes to the advancement of care science. Interpersonal Caring Behavior (ICB) is proposed as a communication technique that can be applied to the subjects in the patient-person care theory. Interpersonal care behavior has been reported in research and application to not only the general public's relationships in their homes, workplaces, and daily life, but also chronically ill patients, hospice patients, and adolescents[4,5].

When looking at the cases of need for care by subject, it was suggested that the elderly with disabilities need care for dementia, stroke, visual, hearing, language impairment, and physical limitations[6]. As a result of a significant decrease in sleep time after hospitalization compared to before hospitalization[7], hospitalized children needed care for sleep. In addition, smartphone addiction is emerging as a serious social problem among adolescents today, and excessive use of smartphones appears to cause not only psychological and physical changes, but also dysfunctional changes in interpersonal relationships and daily life[8]. There is a need for care that can promote positive changes in physical, mental, and daily life for these smartphone overuse adolescents.

Patient care behavior has been developed and used in various ways to measure the caring behavior of clinical nurses and nursing students from the perspectives of clinical nurses, nursing students, and patients based on Watson's care theory. To evaluate clinical nurses' caring behavior in hospital clinical settings, the Caring Behaviors Inventory (CBI-42) was analyzed with 42 items of 5 factors and 24 items of 4 factors. CBI for the elderly, 7 factors, 63 items, Caring Behaviors Assessment Tool (CBA), 1 factor for measuring the caring behavior of intensive care unit nurses specializing for each subject In addition to the 16-item version of inpatient surgery, six-item one-factor are used.

On the other hand, Yoon[9] measured interpersonal caring behavior using a questionnaire consisting of 50 questions with 10

concepts suggested by Kim Su-ji's human care theory developed in Korea. The effect of this tool is reported by applying it to various subjects and areas other than patients, such as an interpersonal care intervention program for adolescents with mental health vulnerabilities[10], a music activity program for children from single-parent families[11], a music activity program for children from multicultural families[12], the interpersonal care horticultural activity program for office workers[13] and the enneagram-based human care program for nursing students[14]. However, although the reliability of Yoon [9]'s tool for measuring interpersonal care behavior has been verified, validity verification has not been reported[15]. Therefore, through this study of convergence department of nursing and humanities of caring personality, a rigorous research method is applied to the interpersonal care behavior tool developed in Korea to verify validity, and it is used as a more useful tool to verify the conceptual model of the Interpersonal care theory and to apply it to the development of interventions.

1.2 Purpose of the research

The purpose of this study of convergence department of nursing and humanities of caring personality is to identify the validity of clinical nurses' interpersonal care behavior measurement tools.

1.2.1. Develop interpersonal care behavior measurement tools.

1.2.2. The reliability and validity of the interpersonal care behavior measurement tool are verified.

2. Research method

2.1 Research design

This study is a methodological study to verify the validity of the interpersonal care behavior measurement tool.

2.2 Tool development process

The tool for measuring human caring behavior developed by Seon-hee Yoon was developed together with her supervisor, Su-ji Kim, and with the consent of Su-ji Kim, various studies using this tool were continuously conducted through the mental nursing team at Ewha Womans University. Therefore, the opinion that the validity of this tool is insufficient was continuously raised, and this study was conducted to verify the validity of the developed tool. This study was designed based on the 8-step tool development guidelines presented by DeVellis, and confirmed the components of the tool, prepared items, determined the scale of the tool, tested validity, reviewed the items, applied the tool, evaluated the tool, and optimized the tool.

2.3 Data collection

Data for this survey were collected from August 13, 2021 to August 19, 2021. Before the start of the investigation, the research was reviewed by the Institutional Bioethics Committee of Dankook University (approval number: DKU_IRB-2021-07-062), and the subject and research method were explained to the nursing department of the hospital, and then the research was conducted with cooperation. The subjects were those who were able to communicate verbally, had orientation, and voluntarily agreed to participate in the study among clinical nurses working in four hospitals or higher general hospitals. In the selection of subjects, the researcher selected samples by a convenience sampling method based on the convenience of sample selection. For factor analysis, using the G*Power 3.1.9.7 program, the minimum number of samples was calculated as

74 when the significance level (α) 0.05, the power (1-β) 0.95, and the median effect size of 0.15 in factor analysis were calculated as the standard. However, for confirmatory factor analysis, 150 subjects were included in consideration of the dropout rate. Of these, data from 146 people were used except for 4 who had insufficient response.

2.4 Research tool

The patient care communication measurement tool was developed by Heo (2018) as a tool to measure the verbal and non-verbal communication perceived by the patient from the patient's point of view in the interaction between the nurse and the patient based on Watson's care theory. It consisted of 14 items on a developed 5-point scale. This tool was used as a tool for criterion validity verification. The reliability of the tool was .92 at the time of development and .95 in this study.

2.5 Data analysis

The data collected in this study were analyzed with SPSS 23.0 version and jamovi 2.0.0 version as follows

2.5.1 The general characteristics of subjects were analyzed by frequency and percentage, mean and standard deviation.

2.5.2 Expert content validity was analyzed with I-CVI (Item-level Content Validity Index).

2.5.3 Item analysis was analyzed by item mean and standard deviation, skewness, kurtosis, and correlation between item-total scores.

2.5.4 Among the construct validity, exploratory factor analysis was analyzed with principal component factor analysis using the Varimax orthogonal intersection method, and confirmatory factor analysis confirmed the suitability of the model with $\chi 2$ and df, Root mean square error of approximation (RMSEA), etc., and converged validity (Convergent validity) and discriminant validity tests were analyzed.

2.5.5 The criterion validity using the tool was analyzed by the Pearson correlation test.

2.5.6 Reliability was analyzed by Cronbachs'α.

3. Research results

3.1 General characteristics of subjects

A total of 146 subjects were female, 144 (98.6%) women, the average age was 38.73 years, 93 (63.70%) married, and 76 (52.1%) religious subjects. As for educational background, 82 people (56.2%) had college (bachelor's) graduations, 84 general nurses (57.5%) had a job in the hospital, and work experience was 146.97 months (12 years and 2 months)(Table 1).

3.2 Item analysis

The result of analyzing the skewness (<2.00) and kurtosis (<2.00) of the subject data to know the distribution shape and check the mean and standard deviation of each item to analyze the suitability of the item data , there were no items with an absolute value of 2.0 or higher, confirming the normality of all items. Also, by measuring the corrected item-total correlation coefficient of individual items and all items, if it was less than .30, it was judged that the internal consistency within the scale was low and it was deleted. was selected.

3.3 Exploratory factor analysis

Exploratory factor analysis was performed to verify the validity of the 50 items of the measurement tool that confirmed the internal consistency. First, to determine the appropriateness of factor analysis, KMO (Kaiser-Meyer-Olkin) and Bartlett's sphericity test were performed. As a result, the KMO value was .936, which is more than .50, and Bartlett's sphericity test has a significance probability

smaller than .01. (χ2=6934.766, p<.001), indicating that exploratory factor analysis was appropriate. As a result of performing tertiary 1, 2, 3 factor analysis with the finally extracted 32 items, all of the items met the factor loading criteria. As a result, the KMO value was .948 and Bartlett's sphericity test value was p < .001. By Principal Component Analysis by Varimax rotation, the number of factors was 5 and the cumulative explanatory power was 73.178% (Table 2).

3.4 Confirmatory factor analysis

Confirmatory factor analysis was performed to confirm the model fit of the final tool. As a result, χ2=911(p<.01), χ2/df=2.00 (standard 3.0 or less), Root mean square error of approximation(RMSEA)=.079(<.08), Standardized root mean square residual(SRMR)= .04 (<.05) was met. However, Comparative fit index (CFI)=.89 (>.90) and Tucker-Lewis index (TLI)=.88 (>.90) did not meet the acceptance criteria, but χ2/ As a result of checking the value of df, it was measured to be 2.00, and when this value was 3.00 or less, model fit could be confirmed based on the criterion that the model explains the data well (Noh, 2014), and RMSEA, which shows the simplicity of the model well, was . 079, confirming the model suitability of the tool developed in this study (Table 3).

3.4.1 Convergence validity

The β value of each question was greater than or equal to .50, AVE was factor 1.67, factor 2.67, factor 3.62, factor 4.65, and factor 5.50, satisfying the criteria of AVE>.50, and CR was Convergence validity was secured by satisfying the criterion that CR>.70 with factor 1 .95, factor 2 .94, factor 3 .92, factor 4 .90, and factor 5.72.

3.4.2 Discriminant validity

As a result of the discriminant validity test, the VIF values were 'Factor 1' 4.184, 'Factor 2' 3.274, 'Factor 3' 4.205, 'Factor 4' 2.452, and 'Factor 5' 1.584, all below 5, indicating that there is no multi collinearity problem. All five factors

Table 1. Characteristics of the Participants **(N=146)**

Characteristics	subcategory	N	%	M±SD†
Age(yr)	Over 20 and under 30	45	30.8	38.73±9.66
	Over 30 and under 40	34	23.3	
	Over 40 and under 50	50	34.2	
	Over 50 and under 60	17	11.6	
Gender	Female	144	98.6	
	Male	2	1.4	
Marital status	Married	93	63.7	
	Single	51	34.9	
	etc	2	1.4	
Religion	Yes	76	52.1	
	No	70	47.9	
Career	-			146.97mon±110.02
Agency	A	34	23.3	
	B	36	24.7	
	C	34	23.3	
	D	38	26.0	
	etc	4	2.7	
Education	college graduation	21	14.4	
	bachelor's degree	82	56.2	
	during graduate school	8	5.5	
	graduate school	35	24.0	
position	general nurse	84	57.5	
	charge nurse	9	6.2	
	head nurse	45	30.8	
	etc	8	5.5	

Table 2. Exploratory Factor Analysis Finding (N=146)

Item	factor 1	factor 2	factor 3	factor 4	factor 5
17	.809	.247	.162	.287	.106
18	.761	.219	.227	.287	.164
20	.718	.363	.257	.221	.124
14	.714	.262	.177	.319	-.029
19	.712	.299	.249	.323	.146
7	.614	.320	.299	.273	.144
8	.605	.274	.320	.325	.214
15	.580	.342	.084	.273	.356
31	.554	.402	.314	.346	.134
33	.450	.382	.432	.163	.217
46	.258	.815	.282	.198	.169
47	.284	.798	.193	.033	.110
45	.164	.771	.268	.230	.207
49	.249	.728	.199	.156	.200
44	.281	.689	.217	.209	.206
50	.408	.599	.400	.209	-.023
48	.396	.593	.346	.175	.072
41	.533	.559	.200	.261	.131
37	.209	.209	.778	.169	.231
38	.146	.242	.733	.276	.157
36	.171	.393	.702	.241	.102
27	.540	.196	.641	.134	.142
39	.271	.331	.587	.249	.156
28	.496	.279	.560	.221	.161
40	.240	.469	.526	.250	.079
4	.223	.205	.194	.786	-.003
3	.244	.181	.293	.763	.102
1	.425	.117	.274	.699	.062
5	.382	.256	.142	.696	.157
2	.438	.134	.193	.625	.111
22	.102	.222	.278	.077	.816
23	.258	.239	.181	.100	.800
Eigen value	17.707	2.094	1.422	1.188	1.006
% of varienc	55.333	6.545	4.444	3.712	73.178
% of cumulated varienc	55.333	61.8796	66.323	66.323	70.690
KMO(Kaiser-Meyer-Olkin) and Bartlett=.948 $x2=4258.814$ $p<.001$					

were independent of each other, and discriminant validity was secured. In addition, discriminant validity was determined by comparing the AVE mean value between two variables with the squared correlation coefficient (shared variance) between these variables using a method of verifying the AVE mean value between variables and the squared value of the correlation coefficient. A larger AVE mean value (AVE>.r2) means that the degree of explanation of the relevant variable is greater than that of other variables, which confirms discriminant validity. All analysis results satisfied discriminant validity.

3.4.3 Name of factor, sub-factor, number of questions

The five factors derived as a result of confirmatory factor analysis were named as a concept that could imply the contents. Factor 1 consisted of 10 items and included listening, comforting, sharing, and participating in Kim (2017)'s concept of caring behavior. Listening refers to the act of paying attention to the other person's words with all your heart and body, and with all your heart and sincerity. Listening is not only the language itself, but also the thoughts and feelings of the other person. Therefore, active listening means sharing important things such as comfort concepts and feelings, touches,

thoughts, experiences, and knowledge that understand sadness or pain through empathy on the other's side, or participation in observing and experiencing the existence of others from the physical and psychological aspects. This will enable caring behaviors that are sensitive to others and want to be with them on their part. Therefore, it was named 'active listening', which is a representative concept, because it is possible to achieve the comfort of being on the other's side, sharing valuable things with the other party, and participation in experiencing together based on active listening.

Factor 2 includes 8 items, including forgiving and accepting in Kim (2017)'s concept of caring behavior. Accepting shows the attitude of acknowledging and accepting the other person as they are without criticism and trusting the other person. This includes the act of forgiveness, acknowledging, accepting, and believing in the other person's mistakes. Therefore, factor 2 was named 'accepting', which is an extended concept of the act of forgiveness. Factor 3 consists of 7 items and included Hoping and Complimenting in Kim (2017)'s concept of caring for people. Inspiring hope is the act of energizing another person as a source of energy or strength, complimenting is acknowledging and expressing the strength and potential of another person. By acknowledging

Table 3. Confirmatory Factor of Analysis Finding (N=146)

Factors	Item	Standardized estimate (β)	SE§	AVE‖	C.R¶	VIF#	r(r^2)				
							1	2	3	4	5
active listening (10)	Item8	.828		.67	.95	1.000	1	.61(.37)	.78 (.60)	.77 (.59)	.53 (.28)
	Item14	.784	.09								
	Item17	.875	.08								
	Item31	.817	.08								
	Item33	.726	.08								
	Item18	.859	.08								
	Item19	.872	.07								
	Item20	.866	.08								
	Item15	.741	.10								
	Item7	.799	.08								
accep ting (8)	Item47	.821		.67	.94	2.683	-	1	.76 (.57	.66 (.43)	.48 (.23)
	Item50	.797	.09								
	Item49	.802	.08								
	Item45	.779	.08								
	Item44	.809	.09								
	Item41	.779	.08								
	Item48	.850	.08								
	Item46	.925	.07								
complimenting (9)	Item38	.733		.62	.92	3.097	-	-	1	.76 (.57)	.51 (.26)
	Item36	.748	.09								
	Item28	.798	.08								
	Item27	.837	.08								
	Item40	.835	.09								
	Item39	.824	.09								
	Item37	.746	.09								
noticing (5)	Item1	.807		.65	.90	1.880	-	-	-	1	.55 (.30)
	Item2	.771	.09								
	Item4	.849	.09								
	Item5	.823	.08								
	Item3	.779	.09								
companion ing(5)	Item23	.732		.56	.72	1.487	-	-	-	-	1
	Item22	.773	.13								
Model fitness : $x2$=911 (p(.01), $x2$/df=2.00, RMSEA**=.079, SRMR††=.04, GFI‡‡=.89, TL§§I=..88											
B=3.179, S.E=.000											

§SE=Standard error; ‖AVE=Average Variance Extracted; ¶C.R=Construct Reliability; #VIF=Variance Inflation Factor; **RMSEA=Root mean square error of approximation; ††SRMR=Standardized root mean square residual; ‡‡CFI=Comparative fit index; §§TLI=Tucker-Lewis index

Table 4. Correlation between Interpersonal Caring Behavior Scale and The Patient Caring Communication Scale for Criterion-Related Validity, Reliability and Descriptive Statistics (N=146)

Interpersonal Caring Behavior Scale	the Patient Caring Communication Scale(r(p))	Cronbach's α	M±SD
active listening	.812(<.001)	.92	3.82±.60
accepting	.789(<.001)	.92	3.66±.60
complimenting	.730(<.001)	.92	3.60±.63
noticing	.663(<.001)	.93	3.68±.66
companioning	.476(<.001)	.95	3.05±.75
total	.819(<.001)	.91	3.56±.54

and expressing the strength and potential of the subject, factor 3 was named 'complimenting', a concrete action concept, because it can inspire hope that inspires future possibilities, vitality, and courage. In factor 4, all five items included the concept of noticing Kim Suji, so they were named 'noticing', and factor 5 was also named 'companioning' because both of the two items included the concept of companioning Kim Suji.

3.5 Criterion validity analysis

The criterion validity of the interpersonal care behavior measurement tool and the care communication measurement tool was confirmed by a correlation test for all 146 people. The total score of both tools showed a positive correlation with r=.819 (<.001), and by sub domain, factor 1 r=.812 (<.001), factor 2 r=.789 (<.001), factor 2 r=.789 (<.001). 3 r=.730 (<.001), factor 4 r=.663 (<.001), and factor 5 r=.476 (<.001) showed a positive correlation. As for the correlation with the criterion tool, it is appropriate to show a result of r=.40 ~ .80, so criterion validity was secured (Table 4).

3.6 Reliability analysis

The reliability coefficient Cronbach's α of the caring behavior measurement tool was .93, and for each factor, factor 1.92, factor 2 .92, factor 3 .92, factor 4 .93, factor 5 .95, factor reliability was secured. The average score of all items in the tool was 3.56±.54, factor 1 3.82 points, factor 2 3.66 points, factor 3 3.60 points, factor 4 3.68 points, and factor 5 3.05 points (Table 4).

4. Discussion and Conclusion

4.1 Discussion

The initial tools for measuring interpersonal care behavior developed as a result of this study were 50 items for 10 concepts, and the final tool determined through item analysis and exploratory and confirmatory factor analysis was a total of 32 items with 5 concepts.

The first factor The concept of listening, comforting, sharing, and participating is a basic concept of communication skills in caring for people, and it was classified as a factor that is deeply related to each other among the 10 concepts. According to Kim[5]'s concept of caring behavior, listening means active listening as an act of paying attention to the other person's words with all their heart and body, wholeheartedly, and sincerely. For the specific behavior of 10 items of factor 1, the criteria were secured with AVE .67 and CR .95 of convergence validity of the confirmatory analysis, AVE>.r2 criteria were secured for both discriminant validity, and the reliability coefficient Cronbach's α was .92. became. In addition, sharing one's thoughts, meanings, feelings, knowledge, objects, etc., enables active listening by using the five senses and intuition to

explore the meaning behind the expression and the meaning behind it[5]. It is believed that sharing is included in active listening.

Accepting of the second factor was classified as a concept that is closely related to each other among ten concepts of caring for people. For the specific behavior of the 8 items of factor 2, the criteria were secured with AVE .67 and CR .94 of convergence validity of the confirmatory analysis, AVE〉.r2 criteria were secured for both discriminant validity, and the reliability coefficient Cronbach's α was .92. became. Forgiving is an act of acknowledging wrongdoing, seeking sincere expression and generosity, which is the humility of the other person. Comforting comfort is showing an sympathetic attitude and becoming an unconditional ally from the perspective of the subject. Accepting is the act of acknowledging and accepting a person without any judgment or criticism[5]. Therefore, it is considered that Accepting includes forgiving that acknowledges and accepts without any judgment or criticism from the subject's point of view, and comforting that unconditionally stands on the side of the subject regardless of right or wrong.

The third factor complimenting is Kim[5]'s concept of caring for people, hope is an action that energizes another person as a source of energy or strength, and praise is an action that helps others discover their strengths and potentials. For the specific actions of the 7 items of factor 3, the criteria were secured with AVE .62 and CR .92 for convergence validity of the confirmatory analysis, AVE 〉.r2 for discriminant validity, and Cronbach's α for the reliability coefficient of .92. became. Hoping is an action that inspires a source of energy or strength, and is a state of mind characterized by a degree of expectation that something desired or sought can be achieved and a desire to achieve a goal [16]. Complimenting is acknowledging and expressing the strengths and potentials of the subject. These compliments help people discover their strengths and potentials by encouraging them where they lack self-confidence, discovering and talking about positive realities, and so on. Therefore, giving hope to a subject who is hopeless or has no meaning in anything is to have hope and meaning through complimenting, so it was included in the compliment that gave positive support.

The fourth factor is the concept of noticing, which is a caring act that pays sufficient attention to the subject and recognizes it physically, mentally, socially, spiritually, and aesthetically. The five-item specific behavior of noticing changes in health status and appearance by first trying a relationship with interest in the subject was secured with a convergence validity of AVE .65 and CR .90 of the confirmatory analysis, and discriminant validity of AVE〉. The r2 criterion was established, and the reliability coefficient Cronbach's α was obtained as .93. It was said that the clinical nurse's caring behavior of recognizing the subject physically, mentally, socially, spiritually and aesthetically evokes a healing feeling of autonomy and self-integration in the subject, thereby giving them hope for life[17]. It is expected that this tool, developed later, will be used to empirically evaluate the relationship between caring behavior and the subject's health promotion, thereby adding to the explanatory power of the caring behavior tool.

The fifth factor, the concept of companioning, extends one's self to the target and presents a concrete act of being with them

and always by their side. For the specific actions of the two items, the criteria were secured with AVE .50 and C.R .72 for convergence validity of the confirmatory analysis, AVE〉.r2 criteria were secured for both discriminant validity, and Cronbach's α was secured as .95. Participation means participating in activities necessary to maintain and promote patient health. In other words, participation is the key to working together to achieve the desired goal in partnership with the target. Involving the patient in the nurse's goal may not be what the patient initially wanted. Companioning means to do together what to do alone. Extending yourself to others by being with you now[18]. In other words, it is the difference between participating and Companioning by the nurse in what the patient is doing. Being with someone means both temporal and spatial, and includes compatibility and harmony[19]. Therefore, companioning that recognizes the patient as a unique being in a nursing situation and helps them realize that they are being cared for as a valuable human rather than isolated or forgotten being is the more important thing that the caregiver can provide just by being, the concept of participating in companioning was included.

In the results of this study, in interpersonal care behavior, the companioning factor showed a significant positive correlation with r=.476 (〈.001) in the criterion validity, but the correlation score was lower than that of other factors and the average score also had the lowest accompaniment score. The reason is that the act of accompanying care, which is 'a specific act of being with the present and always by your side', is to stand on the side of the patient rather than assert the clinical nurse's expertise. It is considered difficult to Also, similar to the study results of Han and Kim[20] that busy clinical sites have high job stress due to working period, organizational system, and lack of job autonomy, and there is a negative correlation with interpersonal care, this tool developed later It is necessary to understand the relationship between the nurse's job stress and interpersonal care behavior.

Although it is a concept that can cause overlap and ambiguity among the components of interpersonal care behavior measurement items, the tool developed in this study is meaningful in that it overcomes these limitations and secures discriminant validity. Meanwhile, in the past, in the tool development process, it was recommended to mix positive and negative questions to prevent respondents from being biased. Considering that there is a lowering problem[21], there is no inverse transformation item that can cause confusion among respondents, so it is considered to be suitable for measuring nurses and students in the clinical field. However, as a measuring tool for clinical nurses, there is a limitation in that a sample that considers various characteristics such as age, disease severity, and pain of the patients nursed by nurses cannot be sampled, so generalization should be cautious. Since it is predicted that there may be differences in caring behavior depending on the characteristics of the nursing patients, it is necessary to consider the characteristics of the subjects and nursing in future studies.

The significance of this study in terms of nursing theory, research, education and practice is as follows. First, in terms of nursing theory and research, it is significant in that it verified the validity and reliability of the interpersonal care behavior measurement tool developed

based on the care theory reflecting Korean cultural characteristics, unlike the existing tools that measured the degree of human care. have. If the initial concept of caring behavior was developed based on the perception of caring for the mentally ill and their family at the time the tool was developed[5], the interpersonal caring behavior tool presented in this study was developed by reflecting the clinical nursing situation in Korea. It will be meaningful in that it can be measured for a variety of medical staff in various medical environments.

Second, from the perspective of nursing education, it has educational significance in that it can contribute to program development and effectiveness measurement as a specialized measurement tool suitable for the Korean situation, whose validity and reliability have been verified to evaluate the effectiveness of educational programs for improving interpersonal care behavior. have in addition, the interpersonal care behavior measurement tool is a tool based on the human care theory, and it can help medical staff to practice interpersonal care behavior and It is expected to contribute to clinical practice. Therefore, the interpersonal care behavior measurement tool suitable for the Korean situation, whose reliability and validity have been verified in this study, can be usefully used in future domestic interpersonal care related research.

4.2 Conclusion

The interpersonal care behavior measurement tool presented in this study consists of 32 items and consists of 5 concepts: active listening, accepting, complimenting, noticing, and companioning. Reliability has been verified. This tool is meaningful in that it allows clinical nurses to measure caring behavior by considering caring behavior in performing the nursing process and reflecting the perspective of the subject and their family in clinical practice. It can be used as an indicator for. However, in this study, there is a limitation that the severity of the subject's disease or health characteristics were not considered when selecting the sample. In addition, it is expected that this tool will be used as basic data to check the validity of this tool not only for clinical nurses but also for nursing students, to identify differences with clinical nurses, and ultimately to improve the quality of nursing.

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