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Research Article

INVESTIGATION OF ATTITUDES AND BEHAVIORS OF NURSES TOWARDS CARING NURSE-PATIENT INTERACTION IN TURKEY

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Abstract: *Interaction with patients is very important in nursing. In Watson's theory of human care, a holistic approach and care-oriented interaction come to the fore. This study was implemented to examine nurses' attitudes and behaviors towards caring nurse-patient interaction. 183 out of 300 nurses working in inpatient units of a general hospital where the study was conducted participated in the study voluntarily. Data collection with the 12-question questionnaire and "Caring Nurse-Patient Interaction Scale"(CNPI-S) developed by Cossette et al. were used. As a result; most of the nurses are women, in the middle age group and 48.6% of them are educated at least at the undergraduate level. According to the CNPI-S total scores, the importance dimension is X=292.83±34.04, the efficiency dimension is X=282.93±51.19 and the practicality dimension is X=270.11±56.75 points. When the mean scores of the subscales were examined, it was found that the highest scores belong to the subscales of "necessities", "helping relationship" and "environment", and the lowest scores belong to the subscales of "teaching", "sensitivity" and "problem-solving". Significant differences were found in CNPI-S subscale scores regarding age, education level, and nurses' competence in communication (p<.05), and positive and significant relationships were found between CNPI-S subscale scores (p<.01). The tasking of nurses in care-oriented patient interaction is related to nurses' efficiencies and the increase in efficiency increases the practicality of care-oriented interaction. In this study, CNPI-S importance dimension scores of nurses working in public hospitals were similar to many studies, but practicality dimension scores and some subscale scores were found to be partially lower from many studies. For nurses working in a public hospital, skill training on care-oriented patient interaction and a holistic approach can be recommended.*

Keywords: *Nursing, Caring, Nurse-Patient Interaction, Watson's Human Care Model*

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1. Introduction

Today, in nursing care, humanistic and holistic approaches have started to gain importance rather than work-centered approaches and medical models. Conceptual and theoretical nursing models are used to develop knowledge in, guide nursing practice, and improving the quality of care [1-3]. The

communication and interaction between the nurse and the patient are important in terms of philosophical and relational dimensions of care in many nursing theories [4-6]. Although communication and interaction can be used interchangeably, interaction is explained as a subjective relationship experience, in which using communication as a tool. Nurse-patient interaction is the most important tool in realizing the nursing care role. [5, 7, 8]. Watson, who is one of the nursing theorists, emphasized care-focused nurse-patient interaction (CNPI) in his theory based on humanistic perspective and the integrity of mind, body, and soul [2, 3, 9]. In Watson's Human Care Model, the nursing process is defined as a "person-to-person care process" and initiatives are defined as a "healing process". In this model, the nurse and the individual influence and learn from each other through interpersonal relationships, and at the time of care, the nurse must be able to enter the existential domain of the individual by establishing a deep, humanistic approach in interpersonal relationships [10-12]. In nursing care's being effective; it is important that the essence of care is understood that the nurse is in care behaviours and that the patient perceives the care behaviours [3]. According to Watson, care behaviours are to make eye contact, to listen very carefully, to be honest, and sensitive, to touch, to be respectful, to call the patient with his/her name, to give information, to preserve hope, to consider the cultural differences of the patient, to relieve the patient and to take responsibility for him/her, to be individual-centered and emotionally understandable. Therefore, the care behaviours and the healing environment are mostly realized through the interaction of nurses and patients [1, 11, 13]. In addition, 10 carative factors have been defined in the human care model. These are; formulation of humanistic-altruistic value system; (2) instillation of faith–hope; (3) cultivation of sensitivity to oneself and others; (4) development of a helping trusting relationship; (5) promotion and acceptance of the expression of positive and negative feelings; (6) systematic use of the scientific problem-solving method of decision-making; (7) promotion of transpersonal teaching-learning; (8) provision for a supportive, protective, and/or corrective mental, physical, socio-cultural and spiritual environment; (9) assistance with the gratification of human needs and (10) allowance for existential, phenomenological and spiritual forces [1, 14, 15].

Nursing care given by the human care model approach increases empathy, care quality, patient satisfaction, and safety by ensuring that individuals are recovered holistically [7, 12, 16]. In addition, it is maintained that positive patient-nurse interaction increases adherence to the disease/ treatment, well-being, motivation and hope to recover, reduces stress and agitation [5, 17, 18]. The human care model was found to be effective in supporting the trust relationship between the patient and the nurse, the patient's self-expression and self-confidence, and in reducing the anxiety and hopelessness of the patient [13, 19]. Therefore, patient-nurse interaction is of great importance in the care process. However, it should be kept in mind that there are many factors affecting the nurse-patient interaction process, and communication errors or barriers may have negative effects on the interaction [5, 7, 20]. There are comments in the literature that nurses do not have enough awareness about the importance of communication, and that adequate and efficient patient interaction has not been provided because of problems such as insufficiency of personnel, workload, job burnout, and dissatisfaction [9, 12, 21]. Therefore, it needs to focus on solving existing problems related to care-oriented interaction and improving care behaviours.

In the nursing education process in Turkey, nursing models have started to be given more and more place and studies on the human care model were visible. However, the adequacy of these developments and the application status in nursing care are not known. There are a few studies conducted on nursing students and psychiatric hospital nurses in Turkey [8, 9, 19, 22, 23]. it is thought

that it is important to evaluate nurses working in a public hospital in terms of CNPI. Therefore, the aim of this study is to investigate the caring nurse patient interaction levels of nurses working at a public hospital. This study asked the following research questions: (a) What are the CNPI-S dimensions and subscale scores of the nurses in a public hospital? (b) Do nurses' characteristics such as age, education level, and communication skills affect the CNPI-S dimensions scores? (c) What are the relationships between CNPI-S dimensions scores?

2. Material and Methods

2.1. Study Design and Sample

This descriptive and cross-sectional study was conducted in a public hospital affiliated with medical faculty with the necessary institutional permissions and ethics committee approval from Mugla Sıtkı Kocman University (2015/42). Data collection was completed between 2016 and 2017 years 300 nurses working in patient care services of the public hospital constituted the target population. The sample selection method was not used in the research. The nurses are informed about the study and the data collection tools were distributed to all nurses; 183 nurses who accepted to participate in the study and filled the all data collection tools formed the sample. Because the scale used in the study took time to fill, a significant number of nurses refused to participate in the study and therefore the entire universe could not be reached. The rate of participation in the study was determined as 61%.

2.2. Measures

In the collection of the data, the information form prepared by the researcher and used to record socio-demographic and professional information and Caring Nurse-Patient Interaction long scale (CNPI-S) were used.

***Caring Nurse-Patient Interaction Long Scale* (CNPI-S):** The scale developed by Cossette et al. and the Turkish validity, authenticity of which is provided by Yalçın and Aştı (2012) is evaluated in 3 dimensions being "importance", "efficiency" and "practicality" and each dimension comprises 10 subscales and 70 items. Each question is scored between 1-5 and the subscale total scores of the scale without cut points are between 70-350. The subscales and the number of questions in the scale are Humanism (6), Hope (7), Sensitivity (6), Helping relationship (7), Expression of emotions (6), Problem-solving (6), Teaching (10), Environment (7), Necessities (10) and Spirituality (6). As the scores of the individuals on the scales increase, their attitudes and behaviours regarding care-focused nurse-patient interaction increase positively. In the study of Yalçın and Aştı (2012) the Cronbach α values of the scale for 3 dimensions were respectively determined as .99, .98 and .99. In this study; Cronbach α values for the 3 dimensions were found to be .97, .98, .99 respectively [6].

2.3. Data Analysis

Descriptive data were evaluated by number, percentage, and average calculations in the study. The data show the normal distribution and t-test was used in the analysis of binary variables, one-way variance analysis for multiple variables, and berferroni test for further analysis, and the results were evaluated at a .05 significance level. Pearson correlation test was used to analyze the relationships between CNPI-S dimensions.

3. Results

When the distribution of nurses was examined according to their socio-demographic characteristics, 91.8% were female and 46.4% to be over 40 years of age. It was also found that the education level of 48.6% of the participants was undergraduate/graduate, that 87.4% were married and 57.4% had two children. It was found that 24.6% of the nurses had been working for 16-20 years. We found among the nurses taking part in the study, 77.6% stated that their knowledge levels about communication were sufficient and 80.9% that their skill levels about communication with patients were sufficient. According to nurses, the most important problem affecting the interaction with the patient was not being able to allocate time due to the work burden (65%).

When the dimension mean scores of the nurses taking part in the study were calculated to CNPI-S, the importance dimension was found to be 292.83±34.04, the efficiency dimension 282.93±51.19, and the practicality dimension 270.11±56.75 points (Tab.1). The points that the nurses taking part in the study got from the CNPI-S subscales have seen in Table 1.

Table 1. Nurses' CNPI-S dimension and subscale scores (n= 183)

CNPI-S Subscales	CNPI-S Dimensions					
	Importance		Efficiency		Practicality	
	X ± S.d	M	X ± S.d	I	X ± S.d	I
Humanism	24.89±3.94	4.14	23.92±4.55	3.98	22.29±5.15	3.71
Hope	29.44±4.25	4.20	27.99±4.54	3.99	26.79±5.88	3.82
Sensitivity	24.38±4.02	4.06	23.17±5.08	3.86	21.94±5.89	3.65
Helping relationship	30.07±4.12	4.29	28.85±5.38	4.12	27.67±6.10	3.95
Expression of emotions	25.13±3.98	4.18	24.07±5.28	4.01	22.75±6.08	3.79
Problem-solving	24.74±4.08	4.12	23.16±5.63	3.86	22.00±6.36	3.66
Teaching	25.34±4.12	2.81	24.05±5.61	2.57	22.75±5.85	2.52
Environment	29.97±4.18	4.28	28.74±6.02	4.10	27.40±6.20	3.91
Necessities	44.91±5.36	4.49	42.66±8.77	4.26	41.60±9.17	4.16
Spirituality	25.34±4.12	4.22	24.05±5.61	4.00	22.75±5.85	3.79
Total scores	292.83±34.04	4.18	282.93±51.19	4.04	270.11±56.75	3.85

When the total mean scores of CNPI-S were compared according to the gender of the nurses, no statistically significant differences were found in the dimensions of significance, adequacy, and applicability ($p > 0.05$). When the CNPI-S mean scores of the nurses taking part in the study were compared considering their ages, according to the importance, efficiency, and practicality dimensions, statistically significant differences were found between the ages of the nurses and CNPI-S importance ($F = 4.231$; $p < 0.05$), efficiency ($F = 7.438$; $p < 0.01$) and practicality ($F = 7.478$; $p < 0.01$) dimensions. The mean scores of nurses over 40 years of age were found to be higher in all dimensions than in all other age groups (Tab.2). It was found that the differences generally stemmed from the difference in the

scores of nurses under 40 years of age and over (p<0.01). The mean scores of nurses over 40 years of age were found to be higher in all dimensions than in all other age groups.

Table 2. Comparison of CNPI-S dimension scores according to nurses' age (n= 183)

Age	Total score X ± S.d	F	p
CNPI-S Importance Dimension			
Under 30 age	276.14±35.38	4.231	**.016***
Between 30-40 age	290.35±40.78		
Above 40 age	296.50±31.88		
Total	292.83±34.04		
CNPI-S Efficiency Dimension			
Under 30 age	260.29±47.75	7.438	**.001****
Between 30-40 age	257.20±70.73		
Above 40 age	291.58±46.03		
Total	282.93±51.19		
CNPI-S Practicality Dimension			
Under 30 age	248.29±55.91	7.478	**.001****
Between 30-40 age	237.80±75.53		
Above 40 age	279.19±51.42		
Total	270.10±56.75		

*p<0.05; **p<0.01

When the CNPI-S scores of the nurses were compared according to their educational background, the nurses who had undergraduate and higher education had higher CNPI-S importance dimension scores and were found a statistically significant difference (t= -2.27; p<0 .05). Although there was no significant difference in other dimensions, higher educated nurses had lower CNPI-S efficiency and practicality dimension scores (Tab. 3)

When the CNPI-S scores of the nurses taking part in the study were examined according to their state of finding the general knowledge level sufficient about communication with patients, the importance (χ^2= 8.720; p<0.05) and efficiency dimensions (χ^2= 19.318; p<0.001) were found to show statistically significant differences. Besides, significant differences were found in the CNPI-S dimension of importance, in the sensitivity, emotion expression, problem-solving, necessities, and spirituality subscales, and in the practicality dimension in all the subscale scores (p<0.05). Those who found their knowledge level in communication to be quite sufficient were found to have higher CNPI-S scores and those who found it to be insufficient were found to have lower scores. In this study, when the CNPI-S scores were compared according to dimensions in terms of nurses' finding their skill of communication with the patients adequate, a statistically significant difference was found in the importance dimension (χ^2= 6.727; p<0.05), and it was found that nurses who answered: "Yes, a lot" had higher scores ($\bar{x}$=294.61±36.25) while those who answered "no" had lower scores ($\bar{x}$=254.00±20.78). In addition,

statistically significant differences were found in sensitivity, emotion expression, necessities, and spirituality subscales in the CNPI-S importance dimension ($p<0.05$).

Table 3. Comparison of CNPI-S dimension scores according to nurses' education level (n=183)

CNPI-S Dimensions	Education level	Total score X ± S.d	t	p
Importance	Undergraduate	287.31±33.01	-2.272	**.024***
	Bachelor/High Education	298.64±34.32		
	Totaly	292.83±34.04		
Efficiency	Undergraduate	285.72±42.07	0.750	.455
	Bachelor/High Education	279.99±59.42		
	Totaly	282.93±51.19		
Practicality	Undergraduate	273.06±48.18	0.716	.475
	Bachelor/High Education	267.00±64.70		
	Totaly	270.11±56.75		

***p<0.05**

According to Pearson correlation analysis conducted to examine the relationship between the importance, efficiency, and practicality dimensions of the CNPI-S scores of nurses participating in the study, there is a positively oriented moderate relationship between the nurses' CNPI-S importance and efficiency dimension scores (r= 0.50; $p<0.01$), a positively oriented, moderate relationship between the importance and practicality score (r= 0.42; $p<0.01$) and a positively oriented strong relationship between efficiency and practicality dimension scores (r= 0.92; $p<0.01$) and all these relationships are statistically significant (Tab. 4). The relationship between CNPI-S dimensions is even stronger in nurses over 40 years of age with a bachelor's degree and a master's degree.

Table 4. The analysis to the relation between dimension scores of CNPI-S (n=183)

CNPI-S Dimensions	Importance		Efficiency		Practicality	
	r	p	r	p	r	p
Importance	1		.50	**.000****	.42	**.000****
Efficiency	.50	**.000****	1		.92	**.000****
Practicality	.42	**.000****	.92	**.000****	1	

**p<0.01

4. Discussion

Even though Watson's model of human care has come to the fore in recent years in nursing education in Turkey, there are not enough studies examining nurses' knowledge, attitudes, and behaviours regarding this model. In this study, which was planned from this point of view, CNPI-S dimension scores were found to be 292.83±34.04, 282.93±51.19, and 270.11±56.75 respectively for importance, efficiency, and practicality dimensions. In a similar study conducted in a university hospital, nurses' CNPI-S dimensions scores were found to be lower in efficiency (265.07±46.12) and practicality (241.39±48.95) scores than our study scores [9]. In a study with psychiatric nurses, these scores were found respectively 313.08±30.45, 283.79±37.43, and 268.01±47.65 [19]. Among the studies conducted in the literature with nursing students, CNPI-S dimension mean scores were higher in the importance dimension [6, 19, 22]. In our study, the CNPI-S importance dimension score of nurses was lower considering the literature and the other dimension scores were similar to the literature. In the studies of Yılmaz and Cınar [8], Kalender et al [24], and Cosetta et al. (2005) all dimension scores were found to be relatively higher [1]. Although the CNPI-S importance dimension score is high in most studies, the fact that the efficiency and practicality dimension scores are not equally high, this may have stemmed from professional and institutional problems. In the literature, it is mentioned that nurses experience problems such as lack of motivation, dissatisfaction, and burnout besides problems such as insufficiency of staff and workload and it is stated that all these may affect patient-nurse interaction and quality of care [9, 21, 25]. The nurses in the sample also stated that the most important problem preventing the interaction with the patient was the excess workload. That in the studies conducted especially with nursing studies in the literature the importance dimension score of the scale was found to be higher may be associated with holistic approach' being increasingly considered more important in today's nursing education [24]. However, training programs should be revised in order to turn knowledge into skills and increase practicality. It can be said that nurses' knowledge and skill deficiencies regarding patient and care-oriented interaction should be identified and improved, and regulations should be made regarding the working environment and conditions.

When the nurses' CNPI-S subscale mean scores were calculated according to the number of questions, it was found that the nurses got the highest scores in “necessities”, “helping relationship” and “environment” subscales and got the lowest scores in “teaching", "sensitivity" and "problem-solving" (Table 1). Felsmann et al. [13]. and Kaçmaz and Çam [19] also found in their studies that the same subscale scores were higher. In the study with psychiatric nurses, the "spirituality” and "expression of emotions" subscale scores were partially lower [19]. In the study conducted by Bayraktar and Eser with nurses, the highest mean scores of CNPI-S subscales are found "needs" and "help relations", the lowest mean scores are found "sensitivity" and "problem-solving" [9] and these results are similar to those of our study. The nurses in our sample attach importance to meeting the needs of the patient, which is the foundation of the profession, and to establish a helping relationship and regulate the environment for this purpose, and they consider themselves more competent and more practicable. Besides providing care for the needs of the individual, nurses need to be sensitive and adequate in problem-solving skills. However, the sensitivity and problem-solving subscale scores of the nurses are seen to be low in the sample and literature. This result may be a sign that nurses are more focused on physical care and that the concept of holistic care is not adequately reflected in nursing practice. Although there are studies aimed at improving the quality of care in Turkey, the work-centered approach continues to negatively

affect nursing care [19]. It is thought that sensitivity in patient interaction, problem-solving, and attitudes and behaviours towards patient education of nurses in the sample may be caused by lack of knowledge and skills and that the problems mentioned may also be effective and comprehensive research of the subject is needed.

In our study, it was observed that CNPI-S nurses aged 40 and over received high scores in all dimensions. This result can be interpreted as experienced nurses' giving more importance to care-oriented interaction and finding enough themselves more efficiency and practicality. Similarly, in the study of Bayraktar and Eşer [9], it was found that the CNPI-S importance and efficiency dimension scores increased in line with the age and professional experience of nurses. In addition, there are studies in the literature indicating that empathy and communication skills increase together with professional experience, it is maintained that with nurses, variables such as education and age affect communication skills [22, 27]. According to the results, it can be said that age and professional experience are important variables for care-oriented interaction. In the study conducted with psychiatric nurses, the professional experience was not found to be an important variable [19]. In the studies conducted on nursing students in the literature, that there were no significant differences between CNPI-S scores because the age groups were close to one another, was evaluated as an expected finding [6, 22, 24]. In our study, it was found that the CNPI-S importance dimension scores of the nurses with undergraduate and postgraduate degrees were significantly higher, but no significant difference was found in efficiency and practicality dimension scores (Tab. 3). This result shows that more educated nurses find the care-oriented patient-nurse interaction more important and suggests that there may be different variables affecting efficiency and practicality dimensions. It is stated in the literature that the general communication skills of nurses are related to education level [5, 26, 27]. In a study conducted by Bayraktar and Eşer in a university hospital, a significant difference was found between the education level of nurses and the practicality dimension of CNPI-S, and especially the scores of nurses with a graduate degree were found to be higher [9]. In Kaçmaz and Çam's study [19], there was a significant difference from all CNPI-S dimension scores according to the educational level of psychiatric nurses, and as the level of education increased, CNPI-S average scores of nurses also were increased. According to the results of the study, it was found that the sample and institutional differences might affect the results, and although most nurses considered themselves adequate about general patient communication and attached importance to care-oriented interaction, this situation was not reflected in the CNPI efficiency and practicality dimension scores. Although it is thought that excess workload may negatively affect the practicality of care-oriented patient interaction and the development of nursing efficiency, further study data are needed for the analysis of the subject.

In the analysis conducted to examine the relationship between the CNPI-S dimensions of the nurses taking part in the study, positively oriented and moderate relationships were found between the importance dimension and the other dimensions. Positively oriented and strong relationships were found between the efficiency and practicality dimensions (Table 4). Especially in those who find communication skills adequate and those over 40 years of age, this relationship was found stronger. In Kaçmaz and Çam's study [19], similar significant relations were found between importance and efficiency (r= 0.777, $p<0.01$), importance and practicality (r= 0.555, $p<0.01$) and efficiency and practicality dimension scores (r= 0.810, $p<0.01$) of nurses. Therefore, that the nurses care about CNPI increases their efficiency and the increase in the efficiency of nurses in care-oriented interaction also increases practicality. We think that nurses who care about care-oriented patient interaction may develop

their own communication skills while using communication skills can increase nurses' efficiency and practicability about CNPI.

Although the importance given to Watson's “human care theory” and nursing-patient interaction have been gradually increasing in nursing education and research, it can be said that its reflection on nursing care practices is not sufficient for our country. It is recommended to plan effective training for nurses about CNPI, to provide team and institutional cooperation, and to create a healing environment. The healing environment will also be supportive in the team members' being more sensitive to each other, in increasing the sense of well-being in the team, and in developing the corporate culture. Additionally, the use of the model is recommended for the prevention of lack of motivation, job dissatisfaction, and burnout and the reduction of medical and ethical violations [12]. Therefore, it is important that nurses question the concept of care and their capacity and performances [15]. When the nurses understand the essence of care and the importance of holistic care, patient-centered care and care-oriented interaction will increase in nursing practice. When the power of nursing care is perceived, more decisive steps can be taken for the solution of the professional problems affecting the care. However, as this process will take time, increasing the number of nurses in our country, the gradual transition from the work-centered system to the holistic and patient-centered caring system are the steps that can be taken to solve the problems.

5. Limitations

We thought participation of the nurses' was affected negatively because of CNPI-S (70 items) that used was very long and complex for nurses. Therefore, using the short form of the CNPI-S may be more advantageous in terms of the participation rate. Since there was no national study with nurses working in a state or public hospital, there were partial limitations with regard to the discussion in our study. Additionally, the fact that the study was performed in one public hospital can be considered as a limitation about generalizability. And, it may be useful to repeat the study in a multicenter and larger sample.

6. Conclusions

In this study, although the CNPI-S importance dimension scores of nurses working in general public hospitals were similar and higher than many studies, many scale scores were found to be partially lower than nursing students. The patient needs environment and helping relationship subscales scores were found to be higher and teaching, sensitivity, and problem-solving subscales scores were found to be low in the study. Excess workload and fewness of nurses number maybe see as the most important obstacle for interaction with the care-oriented patient. According to the results of the study, age/occupational experience is an important variable affecting CNPI-S scores, and education level has only made a difference in the importance dimension. In addition, according to the results of the study, the nurses' efficiency score increases as care-oriented patient interaction is emphasized, and the increase in efficiency increases practicality. An increase in the awareness and interaction skills of nurses will increase the applicability of care-oriented nurse-patient interaction.

Consequently, although the human care model and holistic approach are given more importance in vocational and post-graduate nursing education in recent years. It can be said that the knowledge and skills of the nurses working in the public hospital about the human care model are inadequate. Therefore,

it is necessary to increase the competence of nurses in the use of theories and models that will improve the quality of nursing care in the recovery process. Nurses with professional experience and high education can play a key role in the implementation of care-oriented nursing interaction. Other than this, comprehensive studies and projects should be planed for the analysis and solution of problems affecting nurse-patient interaction and nursing care in Turkey.

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