



## Experimental Research

# The effect of the communication skill development psychoeducation based on Kolcaba's comfort theory on the caring nurse-patient interaction levels

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### Abstract

**Objectives:** The aim of this study is to evaluate the effect of the Kolcaba theory-based communication skill development psychoeducation program on nursing students' care-oriented nurse-patient interaction levels.

**Methods:** This study is an intervention research with pre-test-post-test pattern (without a control group). The sample of the study consisted of 27 nursing students who took the Mental Health and Diseases Nursing Intern Practice course at the Faculty of Health Sciences, Department of Nursing. After the pre-test, the students were given a total of five sessions of psychoeducation, one session each for 90-120 min each week. In addition, a session evaluation meeting was held after all sessions were completed. In addition, students' opinions were taken in each session using psychoeducation group rules, characteristics of the psychoeducational group life program, goal-setting cards, individual goal-setting form, and session evaluation form.

**Results:** About 92.6% of the students participating in the study were female and the mean age was 21.74±0.76. The mean score of the "Care-Oriented Nurse-Patient Interaction Scale" score of the students before the education was calculated as 297.22±34.29 and as 329.14±22.46 after the education, and the difference was found to be statistically significant ( $p<0.005$ ). At the same time, it was determined that the difference between the mean scores of all scale sub-dimensions before and after the education was significant ( $p<0.005$ ).

**Conclusion:** Communication skills based on Kolcaba's "Comfort Theory" and physical, environmental, sociocultural, and psychospiritual dimensions, which are among the theoretical-based applications, were found to be effective on students' care-oriented nurse-patient interaction levels.

**Keywords:** Kolcaba comfort theory; nurse-patient relations; nursing education; patient comfort.

The aim of nursing education is a positive and permanent change in students' emotions, thoughts, and behaviors. Ensuring these changes only depends on educators' carrying out the education process through guidance while fulfilling their roles.<sup>[1]</sup> The nursing process is a tool through which nursing students learn problem-solving skills. This process is only possible with an evidence-based education model.<sup>[1,2]</sup> With an education culture based on scientifically proven theories,

student nurses can develop an evidence-based perspective in their practices.<sup>[3]</sup> Kolcaba's comfort theory is based on a very important theoretical structure in terms of its usability.<sup>[4,5]</sup>

### Kolcaba Comfort Theory

Comfort theory is based on physical, psychospiritual, environmental, and sociocultural needs. (Fig. 1) Professional nurses undertake the task of assessing the bio-psycho-so-

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cial needs of individuals and meeting their comfort needs specified during the caregiving process.<sup>[6]</sup> It is believed that including the comfort theory in the education process of student nurses is necessary for providing effective and planned care. In a study, while it was appropriate to use the diagnosis of impaired comfort in all of the patients they included in the study, this diagnosis was used in 52.7% of these patients, and 84.7% of the students who made the diagnosis were able to determine the correct purpose.<sup>[2]</sup> With the application of the comfort theory, it is aimed to meet the physical, mental, social, environmental, spiritual, and emotional health-care needs of the individual, to reduce anxiety, fear, and pain, to improve the comfort level and health outcomes, and to increase the level of care satisfaction.<sup>[7,8]</sup> It is thought that all these can only be possible with a positive nurse–patient interaction.

### The Importance of the Use of Kolcaba Comfort Theory in Nursing Education

Nursing discipline continues its existence with theoretical knowledge. To produce effective knowledge, the research process must be developed based on theoretical structures. Theory and research interact; research supports theory and theory generates research questions. Ensuring the development of nursing science constitutes the primary purpose of nursing theories.<sup>[9,10]</sup> Supporting discipline-specific theories with research has an important place in the development of professional knowledge and practices. It is necessary to have theory-based practices for the development of the quality of nursing care. In clinics, it is very important for nurses to acquire communication skills to be able to perform their practices with theory-based knowledge. These theoretical knowledge-based communication skills should be taught to nursing students; every attempt should be based on theory and therefore evidence; and communication skills for evidence-based practices should be taught.<sup>[4,10]</sup>

All stages of nursing interventions consist of the interaction process between the nurse and the patient. Presenting these stages in a positive framework causes the process to be perceived mutually positively.<sup>[11]</sup> Nurse–patient interaction is not only an important method used to achieve treatment goals but also very important in the healing process.<sup>[12]</sup> It was reported that the curriculum should be designed to improve the interaction levels of nursing students and that students should be supported for practice in this regard.<sup>[13]</sup> Comfort in nursing; diagnosing the comfort needs of the patient, family, or society; taking precautions to meet their needs; and evaluating the basic comfort level and post-application comfort level constitute the steps of the process. Therefore, the family structure of caregivers and care recipients is important.<sup>[14]</sup>

#### What is presently known on this subject?

- It is extremely important for nursing students to adopt evidence-based approaches. Providing theory-based care in patient care will increase the quality of care and the quality of life of the patient. In Kolcaba's comfort theory, it is seen as an important and different approach based on evidence in increasing the continuity of individuals' comfort.

#### What does this article add to the existing knowledge?

- The communication skill development program based on Kolcaba comfort theory increased the effectiveness of communication and care in nursing students' patient–nurse interaction.

#### What are the implications for practice?

- In this study, it was found that the communication skill development program based on Kolcaba comfort theory increased the communication skills of nursing students with patients and the quality of evidence-based care. For this reason, it is seen that the application of evidence-based approaches in nursing care is extremely important.

The literature on the use of care-oriented communication skills to identify and meet comfort needs has been reviewed; however, no research has been found on the subject. This study focused on the importance of developing care-oriented communication skills of nursing students while using the care based on Kolcaba's theory as a guide. The study may renew and improve the existing knowledge and may attract the attention of nurse educators and nurse readers to these skills.

This study was conducted to evaluate the effect of care-oriented communication development psychoeducation program based on Kolcaba's theory given to nursing students on their caring nurse–patient interaction levels.

### Hypotheses

H1: The communication development psychoeducation program based on Kolcaba's theory affects nursing students' caring nurse–patient interaction levels.

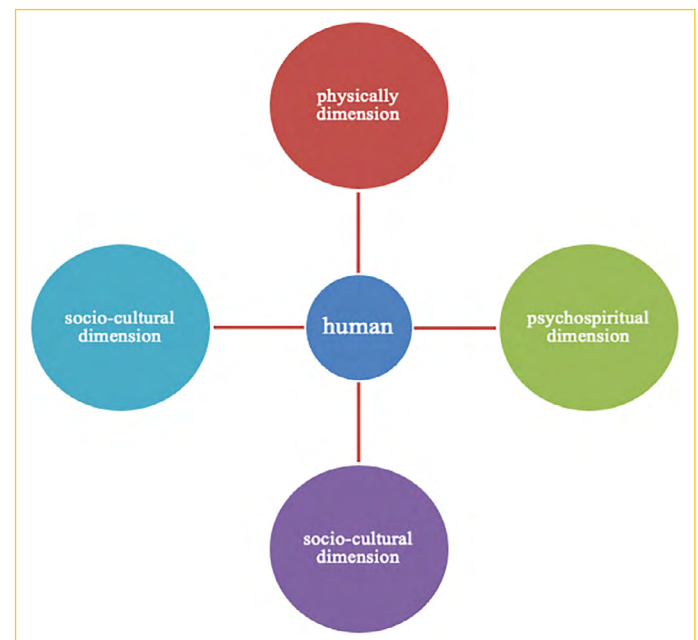


Figure 1. Comfort model.

## Materials and Method

The study was performed with quasi-experimental study, one-group pre-test–post-test design.

### Research Population and Sample, Sample Selection Method

The target population of the research consists of senior students who chose to take the Mental Health and Diseases Nursing Intern Practice Course, one of the intern practice courses, in the spring term of the 2020–2021 academic years at a university in Türkiye. The number of senior nursing students was approximately 120 people. In their 8<sup>th</sup> academic semester, students choose one of the intern practice courses in groups of 30 people on average. In the second term of the 2020–2021 academic years, 30 students chose the Mental Health and Diseases Nursing Intern Practice Course. Since the course is an elective course with a single branch. The study was conducted with one group, pre-test–post-test design, which is a quasi-experimental. The power analysis revealed that a sample including 25 participants would be adequate at a 95% confidence interval and 80% power (Fig. 2).

### Inclusion criteria

- Being a 4<sup>th</sup>-year student in the Nursing Department and actively attending the Mental Health and Diseases Nursing Intern Practice course,
- Not having a physical or mental disorder that would prevent verbal communication,
- Being between the ages of 18–65,
- Volunteering to participate in the study.

### Exclusion criteria

- Non-participation in more than one session of the communication skills development psychoeducation,
- It is not completing the pre-test and post-test measurements.

The research sample consists of 30 students whose 27 students met the inclusion criteria and attended the sessions were included in the study. Three students were excluded from the study because they did not attend two sessions.

### Data Collection Tools

#### Personal Information Form

The form includes three questions in total on some characteristics of students. The Introductory Information Form consists of questions about students' age, gender, and family type.

#### The Caring Nurse–Patient Interactions Scale (CNPI)

The CNPI was developed by Cossette et al.<sup>[15]</sup> in 2005 based on Watson's theory of human caring. The scale aims to evaluate

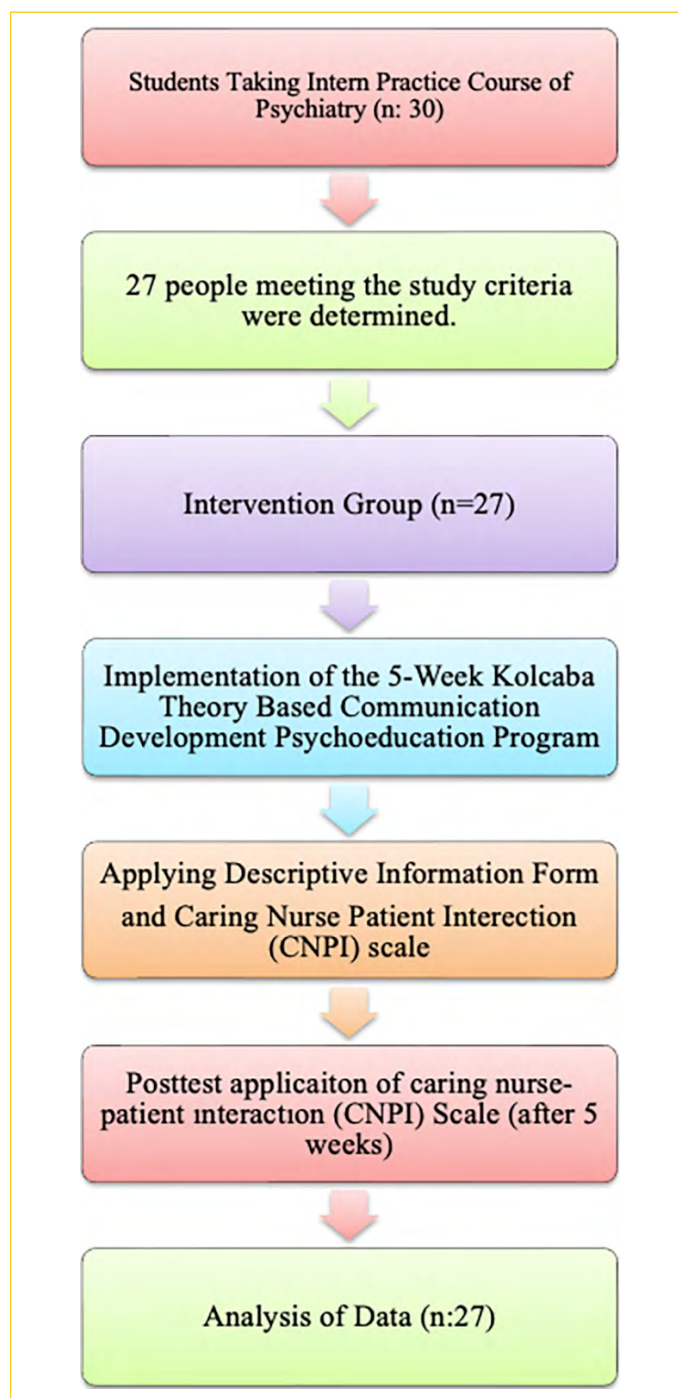


Figure 2. Research plan.

the relationship between nurses' attitudes and behaviors toward care and patient outcomes. The scale was translated into Turkish by Yalçın Atar and Atabek Aştı, and its validity and reliability were tested.<sup>[11]</sup> The CNPI consists of 70 items under 10 subscales, which are humanism, hope, sensitivity, helping relationship, expression of emotions, problem-solving, teaching, environment, needs, and spirituality. The scale total score for each of the three aspects is obtained by adding up the scores of all items (70 items). The lowest and the highest scores that

can be obtained in each aspect of the scale are 70 and 350, respectively. The test–retest correlation coefficients of the items under the importance, competence, and feasibility aspects of the CNPIS are 0.75, 0.86, and 0.76, respectively. Internal consistency is between 0.56 and 0.81 for the importance aspect dimension, between 0.56 and 0.79 for the competence aspect, and between 0.56 and 0.80 for the feasibility aspect. The Cronbach's  $\alpha$  values of the sub-scales are 0.99, 0.98, and 0.99, separately. The Cronbach's  $\alpha$  is 0.99 for the whole scale. In this study, the overall reliability of the scale was found to be 0.98.

## Data Collection

The personal information form and the CNPIS were used to collect data. Research data were collected between April 01, 2021, and May 07, 2021, from 27 students who agreed to participate in the research and who met the inclusion criteria. Since not to affect the pre-test applied before the training, relevant students were not informed until before the start of the program. After the pre-tests were administered, the students were informed about the criteria for inclusion in the research. Those who met the inclusion criteria and agreed to participate in the research were included in the education program. Before the research, the informed consent form created through the Google Form. It was sent to the students through e-mail. Furthermore, they were informed about the psychoeducation program with its contents. Detailed contents on the content of the program are given in Table 1.

## Intervention

### The Development of Educational Content

Before starting with the education program, necessary permissions, including Ethics Committee approval, permissions, informed consent of the participants, and permission for the use of the CNPIS, were received. Then, the international and national literature on the comfort theory was reviewed since it constitutes the theoretical basis of the research. As a result of the literature review, the content of the 5-week psychoeducation program was created (Table 1).

### The Delivery of Educational Content

After this stage, the data collection forms were prepared with Google Form and the pre-test was administered to the students in about 15–20 min. Students were asked to use a pseudonym while answering the pre-test questions and it was stated that they should use the same pseudonym during the post-test process. The first session of the education program was initiated. Each session lasted about 90–120 min, with 5–10-min breaks when necessary. During psychoeducation, assertive and therapeutic communication techniques and positive interpretation communication skills were used as communication techniques by educators in approaching students. As teaching techniques, applied knowing teaching

techniques were used. The principle of humanism was emphasized in every session of psychoeducation. In addition, psychoeducational steps focused on Kolcaba's comfort theory, being sensitive to physical, psychospiritual, sociocultural, and environmental dimensions, establishing supportive relationships, encouraging the expression of thoughts and feelings, identifying needs, solving problems for needs, and protecting hope by developing goals in meeting the needs were followed. While applying these teaching steps, the alpha and beta editions of each session were discussed. In this way, all sub-dimensions of developing care-oriented communication skills are included in psychoeducation as a principle.

### Communication Skills Development Psychoeducation Based on Kolcaba's Comfort Theory

In accordance with the purpose of psychoeducation, four skills developed to teach care-oriented communication skills are shown. These developed and demonstrated care-oriented communication skills, in turn, are the "Body Scan Meditation Practice" skill for the physical dimension: It has been developed to feel the body, embody, and relax the experiences of the body; "Circle Technique" for four dimensions: Emotions, thoughts, experiences, materials that will increase comfort in four dimensions are written into the relevant circle, developed to be noticed, concretized and to create goals; "Comfort Model" for 4 dimensions: Developed as a tool to help determine the most needed comfort zone and levels, with a score of 0–100 for comfort in 4 dimensions; "Practice of Compassion" for the Psychospiritual Dimension; it has been developed to accept what is happening and provide relief. The students were given training on the psychoeducation topics listed in Table 1. Based on Kolcaba's theory, the basic concepts of the theory, its 4-dimensional and 3-level taxonomic structure, its use in practice, and case examples were applied to the students participating in the research, and then, post-test measurements were made in the last session of psychoeducation.

### Data Analysis

The data were analyzed using SPSS 23. Parametric tests were used because the group showed normal distribution. Frequency, percentage, and mean values were calculated with the Shapiro–Wilk test, and t-test was performed in dependent groups. The distribution of the data was examined, and it was decided to perform parametric analyzes since the distribution was normal according to the kurtosis and skewness values and the Kolmogorov–Smirnov analysis.

### Ethical Issues

Before starting the research, permission was obtained from a University's Social and Human Sciences Ethics Committee with the decision dated October 22, 2021, and numbered 2021–792. Institutional permission was received from a Uni-

Table 1. Weekly modular plan

Module week	Name of the module	Content	Aim	Educational method/ technique	Duration
Module 1	Let's Find comfort in communication	<ul style="list-style-type: none"> <li>-Getting to know each other</li> <li>-Information about the psychoeducation to develop care-oriented communication skills based on Kolcaba's theory</li> <li>-What is assertive behavior?</li> <li>-Characteristics of assertive behavior</li> </ul>	<ul style="list-style-type: none"> <li>-The purpose of this session is to make the group members adapt to each other and the psychoeducation program by making an introduction and warm-up interviews with the participants.</li> </ul>	<p>Materials: Group rules form, psychoeducation group life program characteristics form, psychoeducation goal development form, personal goal setting form, psychoeducation program participation agreement, session evaluation form</p> <p>Techniques: assertive communication and therapeutic communication techniques development presentation</p>	90–120 min
Module 2	Let's learn about Kolcaba and her theory	<ul style="list-style-type: none"> <li>-The background of the Theorist</li> <li>-Historical Background of the Theory</li> <li>-The Importance of the Theory for the Nursing Profession</li> <li>-Definitions of Important Terms</li> </ul>	<ul style="list-style-type: none"> <li>-The purpose of this session is to develop care skills based on Kolcaba's theory.</li> </ul>	<p>Materials: Psychoeducation goal development form, personal goal setting form</p> <p>Techniques: warm-up game, lecture, question-answer, discussion, four-dimensional taxonomic presentation of the theory and the theorist, body scan meditation practice accompanied by music.</p>	90–120 min
Module 3	Let's experience four-dimensional comfort	<ul style="list-style-type: none"> <li>-Assumptions of the Theory</li> <li>-Basic Concepts of the Theory</li> <li>-Health Care Requirements</li> <li>-Nursing Interventions</li> <li>-Increased Comfort</li> </ul>	<ul style="list-style-type: none"> <li>The purpose of this session is to increase the participants' knowledge level by presenting them more detailed information about Kolcaba's theory, to apply, evaluate, and demonstrate the four-dimensional circle technique.</li> </ul>	<p>Materials: four-dimensional taxonomic presentation of the theory, four-dimensional circle technique (skill development),</p> <p>Techniques: warm-up game, lecture, question-answer, discussion, four-dimensional circle application, group alpha, and beta pressure analysis.</p>	90–120 min
Module 4	Let's Look through the Four-dimensional communication window with comfort	<ul style="list-style-type: none"> <li>-Propositions of the Theory</li> <li>-Nursing Metaparadigms</li> <li>-Basic Concepts (Nursing-human-environment-health)</li> <li>-Nurse Theorists Who the Theorist Benefitted from in Developing the Theory</li> <li>-Use of the Theory in Practice</li> </ul>	<ul style="list-style-type: none"> <li>-The purpose of this session is to provide the participants with information about the propositions of the theory, its metaparadigms, and the factors that affect the development of the theory</li> <li>-To apply and evaluate the four-dimensional comfort model technique based on Kolcaba's theory</li> </ul>	<p>Materials: psychoeducation goal development form, personal goal setting form, psychoeducation program participation agreement, session evaluation form</p> <p>Techniques: warm-up game, lecture, question-answer, discussion, four-dimensional comfort model application, group alpha and beta pressure analysis</p>	90–120 min
Module 5	Let's focus on comfort in healthy and sick individuals look with comfort, goodbye!	<ul style="list-style-type: none"> <li>-Theoretical framework-based case formulation and discussion of nursing interventions</li> <li>-Evaluation Session: Ending Group Sessions</li> </ul>	<ul style="list-style-type: none"> <li>-The aims of this session are to evaluate what has been learned during the whole psychoeducation and to ensure that the members are willing to implement what they learned in the group sessions,</li> <li>-To improve the use of the theory in practice with four-dimensional case analysis and presentation, and to improve care-oriented communication skills in the psychospiritual dimension</li> </ul>	<p>Materials: four-dimensional case analysis (skill development), compassion practice, group rules form, psychoeducation group life program characteristics form, psychoeducation goal development form, personal goal setting form, psychoeducation program participation agreement, session evaluation form</p> <p>Techniques: warm-up game, lecture, question-answer, discussion, four-dimensional case study, compassion practice, group work</p>	90–120 min

versity's Faculty of Health Sciences Dean's Office. Permission to use the CNPIS was received through e-mail. Written and verbal consent of the participants was obtained through the Voluntary Consent Form. The study was conducted in accordance with the Declaration of Helsinki and the ethical standards of the National Research Committee.

## Results

The mean age of the students was  $21.74 \pm 0.76$ . 92.6% of the students were female, and 85.2% had a nuclear family structure. In our research, it was determined that there was no significant difference between age, gender, and family structure variables and scale scores (Table 2).

Table 3 shows the CNPIS total and subscale mean scores of the nursing students before and after the communication skills development psychoeducation based on Kolcaba's theory. While the CNPIS total mean score was  $297.22 \pm 34.29$  before the program, it was found to be  $329.14 \pm 22.46$  after the program. This difference is statistically significant. The humanism subscale mean score of the CNPIS was  $26.07 \pm 3.07$  before the program and  $28.29 \pm 1.95$  after the program. The mean score for the hope subscale was  $29.96 \pm 4.15$  before the program and  $32.85 \pm 3$  after the program. The sensitivity subscale mean score before the

**Table 2. Distribution of students' descriptive characteristics (n=27)**

Features	SD	Min-max	p
Average age	$21.74 \pm 0.76$	21-23	0.622
	n	%	
Gender			
Female	25	92.6	0.774
Male	2	7.4	
Family type			
Extended	23	85.2	0.475
Wide	4	14.8	

SD: Standard deviation.

program was  $23.40 \pm 3.81$  and it increased to  $26.88 \pm 2.81$  after the program. The mean score for the helping relationship subscale was  $31.22 \pm 3.60$  before the program and  $33.85 \pm 1.76$  after the program. The expression of emotions subscale mean score was  $24.85 \pm 3.54$  before the program and  $28.37 \pm 2.09$  after the program. The mean score for the problem-solving subscale was  $24.25 \pm 3.68$  before the program and  $28.22 \pm 2.35$  after the program. The pre- and post-education program mean scores for the remaining subscales are as follows: Teaching (pre:  $38.66 \pm 4.76$  post:  $42.77 \pm 2.84$ ), environment (pre:  $30.66 \pm 3.60$ ,

**Table 3. Comparison of students' pre-test and post-test CNPIS mean scores (n=27)**

Scale and factors	Application (pre and post-training)	Mean $\pm$ SD	Test	p
Humanism	Pre-test	$26.07 \pm 3.07$	-3.288	0.003
	Post-test	$28.29 \pm 1.95$		
Hope	Pre-test	$29.96 \pm 4.15$	-2.996	0.006
	Post-test	$32.85 \pm 3.04$		
Sensitivity	Pre-test	$23.40 \pm 3.81$	-3.726	0.001
	Post-test	$26.88 \pm 2.81$		
Helping relationship	Pre-test	$31.22 \pm 3.60$	-3.423	0.002
	Post-test	$33.85 \pm 1.76$		
Expression of emotions	Pre-test	$24.85 \pm 3.54$	-4.362	0.000
	Post-test	$28.37 \pm 2.09$		
Problem-solving	Pre-test	$24.25 \pm 3.68$	-4.609	0.000
	Post-test	$28.22 \pm 2.35$		
Teaching	Pre-test	$38.66 \pm 4.76$	-3.835	0.001
	Post-test	$42.77 \pm 2.84$		
Environment	Pre-test	$30.66 \pm 3.60$	-2.510	0.019
	Post-test	$32.77 \pm 2.54$		
Needs	Pre-test	$43.11 \pm 5.83$	-2.608	0.015
	Post-test	$46.81 \pm 4.16$		
Spirituality	Pre-test	$25.00 \pm 3.33$	-4.194	0.000
	Post-test	$28.29 \pm 2.44$		
Total	Pre-test	$297.22 \pm 34.29$	-4.053	0.000
	Post-test	$329.14 \pm 22.46$		

CNPIS: Caring nurse-patient interactions scale; SD: Standard deviation.

post:  $32.77 \pm 2.54$ ), needs (pre:  $43.11 \pm 5.83$ , post:  $46.81 \pm 4.16$ ), and spirituality (pre:  $25.00 \pm 3.33$ , post:  $28.29 \pm 2.44$ ). All differences between subscales were statistically significant and the post-education scores were found to be significantly higher than the pre-education scores ( $p < 0.05$ ).

## Discussion

The aim of this study is to evaluate the effect of Kolcaba theory-based communication skill development psychoeducation program on nursing students' nurse-patient interaction levels regarding care. According to the findings of the study, it was observed that the applied psychoeducation program increased the total and subscale scores of nursing students' patient-nurse interaction.

This study revealed that the communication development psychoeducation based on Kolcaba's theory increased the CNPIS total score and all subscale mean scores of the students ( $p < 0.05$ ). When the studies on psychoeducation given within a theoretical framework are examined, it is seen that some research results are in parallel with our research findings.<sup>[16-18]</sup> Thus, it can be concluded that a psychoeducation program with a theoretical basis provides individuals with care behavior skills and caring nurse-patient interaction skills.

When the nursing research based on Kolcaba's comfort theory is examined, it is seen that the theory is used in many disease approaches from pain in women who underwent hysterosalpingography to individuals diagnosed with breast cancer.<sup>[19]</sup> According to the results of the qualitative research on Kolcaba comfort theory conducted with nursing students, it was found that Kolcaba comfort theory provides very positive results in many aspects of patient practice.<sup>[20]</sup> Following the meditation program created by Aktaş (2015) within the framework of Kolcaba theory, it was observed that it had a positive effect on reducing the anxiety levels of university students experiencing dysmenorrhea.<sup>[21]</sup> These research results support existing research results. The research findings revealed that the approach based on the comfort theory reduces level of pain and increases the level of comfort.<sup>[5,14,22]</sup> When the international and national literature is reviewed, it is seen that there are a limited number of studies based on nursing theories and the number of studies based on Kolcaba's Comfort Theory is also limited.<sup>[5,19,22]</sup> In the literature, no research findings were found regarding the psychoeducation given to nursing students based on Kolcaba's comfort theory. In this context, this study represents the first work conducted in the national literature as a psychoeducation program based on Kolcaba's comfort theory applied to nursing students to evaluate patient-nurse interaction.

Although psychoeducation is a treatment method that integrates psychotherapeutic and educational interventions, it offers a theoretical and practical approach to understanding

the disease and coping with its consequences.<sup>[23]</sup> Psychoeducation also includes the dimensions of diagnosis, determination of needs, implementation, and evaluation. In this respect, psychoeducation given in a theoretical framework provides individuals with analytical thinking and practice skills. Many studies show that psychoeducation is very useful for nursing students in many subjects and provides students with different skills and gains.<sup>[24-26]</sup> Therefore, our findings indirectly prove the effectiveness of psychoeducation on the theory-based care received during school life.

The results of our study support the effectiveness and acceptability of theory-based care psychoeducation.<sup>[27,28]</sup> Our study revealed that the communication skill development psychoeducation program based on Kolcaba's theory significantly increased the communication and caring behaviors of the students.

Our study further revealed that the psychoeducation given to nursing students led to an increase in all the subscales of the CNPIS ( $p < 0.05$ ). Among these subscales, the concept of humanism is an important concept that constitutes the basic element of nursing profession education and practice and provides a holistic and quality delivery of care. Humanism, that is, people-oriented approach, is directly related to Kolcaba's comfort theory. The comfort theory is a holistic and positive theory with physical, psychospiritual, environmental, and sociocultural aspects. In accordance with the four-dimensional taxonomic structure of the comfort theory, psychotherapeutic techniques such as four-dimensional balance model and circle technique were studied one-on-one with the students in psychoeducation sessions, and then practice assignments were given. During the psychoeducation sessions, the goal-setting form and the session evaluation form were used for each session.

A study on humanism, which investigated nurses' attitudes and behaviors toward nurse-patient interactions, revealed that the total mean score of the nurses in the subscale of humanism was high ( $p < 0.05$ ).<sup>[29]</sup> Another study conducted by Kalender et al.<sup>[30]</sup> (2016) reported that the 2<sup>nd</sup>-year nursing students' humanism subscale mean score was higher than that of students in other classes. The study also made an evaluation according to internal and surgical sciences in which nurses had their practice. When the attitudes and behaviors of nursing students who had their practice in surgical sciences toward caring nurse-patient interaction were examined, hope, sensitivity, expression of emotions, and problem-solving subscale mean scores of these students were found to be higher than the students who had their practice in internal sciences ( $p < 0.05$ ). Wu et al.<sup>[31]</sup> (2009) investigated the effect of care education program based on Watson's theory of human caring in nursing students on the attitudes and behaviors of the students and found that the psychoeducation program led to a significant increase in the mean scores of all subscales including humanism and helping relationship. Our study also revealed that individual-oriented

humanistic practice has an important place in the care-oriented approach. An education program designed based on a theory or a model has a positive effect on students' attitudes and behaviors. Therefore, it can be concluded that the quality of care can be increased by helping nursing students adopt this theoretical-based approach through psychoeducation since the comfort theory is directly related to the subscales of CNPIS.

The psychospiritual dimension of the theory includes interventions that will directly support the concept of hope. The use of comfort in this way strengthens individual coping mechanisms, reduces stress and anxiety levels, and increases the level of tolerance for uncertainty.<sup>[4,10]</sup> It has been revealed that as experience increases in the nursing profession, nurses start to believe that caring nurse-patient interaction is important. It was found that nurses who know the definition of holistic care give more importance to the subscales of humanism, helping relationship, expression of emotions, problem-solving, environment, and to caring nurse-patient interaction. Another finding is nurses who include spiritual care in the definition of holistic care perceive themselves as competent in caring nurse-patient interaction.<sup>[29]</sup> The findings of our study and similar studies on developing care-oriented communication skills indicate that care behavior skills of nurses can be developed with a theory-based psychoeducation program.

### Limitation

The limitation of the study is that it was conducted with 4<sup>th</sup>-year intern nursing students from a single university's nursing department.

### Conclusion

Theory-based communication skill development psychoeducation including case analysis, four-dimensional psychotherapeutic techniques, group discussion, role-modeling, verbal expression, meditative techniques, self-compassion practice, role-play, and care-oriented teaching strategies is effective for nursing students as it increases the level of nurse-patient interaction. Our study provides evidence that a communication skill development psychoeducation program can be an effective tool for teaching nursing students the care behaviors that encompass both theory and practice. The psychoeducation program can help nursing students by establishing caring behaviors that can be adapted to clinical situations.

### Relevance for Clinical Practice

With this study, which is based on Kolcaba Comfort theory, it is seen that theory-based approaches, which are evidence-based nursing approaches, guide nurses who care for patients. In this direction, it is of great importance to increase the use of theory-based nursing approaches in the clinic.

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