

Effects of Authentic Education Based on Watson's Theory of Human Care on Care Orientation in Nursing Students

Abstract

Background: Nursing education is instructor-oriented and influenced by traditional medicine. Such an approach to teaching may make it difficult for nurses to develop a humanistic understanding of care.

Aim: This study explored how authentic education, rooted in Watson's Theory of Human Caring, impacts nursing students' care orientation and perceptions in a Caring Behaviors course.

Methods: This mixed-methods study included 74 students, divided into intervention and control groups. The intervention group received a semester of authentic learning based on Watson's Theory. Quantitative data were collected via a Personal Information Form and the Caring Nurse-Patient Interaction Scale. Qualitative data were obtained through reflective writing and focus group interviews with 15 participants from the intervention group. The chi-square test, Mann-Whitney U test, and paired samples test were used for data analysis.

Results: The median age of the students was 20 years, with 89.2% of the intervention group and 86.5% of the control group being female. There were no significant demographic or personal differences between the groups. Following the training, the intervention group showed significant improvements in care orientation and applicability scores. Qualitative interviews identified key themes such as humanism, altruism, awareness, and authenticity.

Conclusion: Integrating Watson's Human Care Theory with authentic learning methods in caring behavior courses enriches instruction, broadens nursing students' understanding of care beyond physical needs, and aligns with the theory's humanistic principles.

Keywords: Authentic learning, care, care orientation, caring behaviors, nursing, Watson's Human Care Theory

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Introduction

Watson's Theory of Human Caring defines authenticity as recognizing reality, engaging in self-exploration, reaching personal potential, and taking autonomous action.^{1,2} Authentic learning, rooted in the concept of authenticity, is ideal for teaching the theory through exploration, interaction, collaboration, reasoning, discussion, problem-solving, and fostering creativity.^{3,4} Authentic learning is a learner-centered approach in which students co-construct knowledge by engaging in real-life tasks that require the higher-order thinking skills used by experts in their daily practice.⁵ Authentic learning supports the holistic development of learners by enhancing their cognitive, psychomotor, and affective domains.⁶ In this process, nursing students actively engage, giving meaning to knowledge for themselves, their patients, and the nursing profession.⁷ Authentic learning in nursing education involves creating experiences that closely mirror the challenges and complexities of real clinical settings.⁸ Therefore, students acquire sustainable skills such as decision-making, patience, flexibility, and the ability to think from different perspectives.⁴ Preparing nursing students to meet the complex challenges of their professional careers is crucial. Traditional didactic teaching methods have limitations in providing students with a deep understanding of clinical contexts and the practical skills required for effective nursing practice. Authentic learning is of great importance as it addresses the widely acknowledged global challenge of bridging the gap between theoretical knowledge and clinical practice.⁸ Watson emphasizes the importance of integrating care, nurturing relationships, relational ontology, holistic perspectives, love, and care awareness into education.⁹ Watson's theory, when applied, focuses on nurses and patients in care, and on educators and students in education. Sitzman adapted the theory to authentic learning, centering educational improvement strategies.¹⁰ Sitzman identifies key processes as altruism, respect, trust, authentic listening, problem-solving, accommodating needs, fostering a respectful environment, aligning care with needs, and believing in miracles. Watson emphasizes love and striving to know as essential for nursing fulfillment.⁹ Authentic education, aligned with Watson's theory, integrates emotion and knowledge. The literature shows that nurses often focus on technical aspects while neglecting compassionate care.¹¹ Nurses frequently emphasize technical tasks such as monitoring medication effects, vital signs, clinical procedures, and doctor consultations.¹² At this point, the questions "What is the purpose of nursing education?" and "What should be the purpose of nursing education?" naturally arise. Collier-Sewell and Monteux, who explored this issue, stated that nursing education serves as a standard for nurses entering the profession to ensure the provision of safe and effective care.¹³ In this context, incorporating perspectives from authentic education and Watson's theory into the

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educational process would foster care awareness in students. This study assumes that authentic learning supports the internalization of care practices to be applied in clinical settings. It is anticipated that students will both develop an awareness of the significance of care and reflect it in clinical practice by believing in its feasibility. This study aimed to assess how authentic education based on Watson's theory influences nursing students' care orientation and perceptions of caring behaviors.

Research Hypotheses

H0: There is no difference in care-oriented nurse-patient interaction between the training group who took the Caring Behaviors course and the control group.

H1: There is a difference in care-oriented nurse-patient interaction between the training group who took the Caring Behaviors course and the control group.

Research Question

How does authentic education based on Watson's Theory of Human Caring, implemented in the Caring Behaviors course, shape nursing students' experiences and perceptions of caring?

Materials and Methods

This study used both quantitative and qualitative methods to ensure comprehensive insights and minimize research bias.^{14,15} The study's quantitative component was a quasi-experimental pretest-posttest design with a non-randomized control group, while the qualitative component employed phenomenology to explore students' perceptions.¹⁶ The study group consisted of 74 volunteer students—37 who took the elective Caring Behaviors course and 37 who did not—selected from among 124 second-year nursing students at a large state university in northern Türkiye between October 2020 and January 2021. The sample size was determined using power analysis with the G*Power 3.1.9.7 program. The effect size assumption was based on Cohen's guideline values, and a large effect size [Cohen's $d=0.80$] was adopted.¹⁷ In the analysis, the significance level was set at $\alpha=0.05$, and the statistical power [$1-\beta$] at 0.90. Accordingly, with 37 participants in each group [74 total], the study was determined to have adequate statistical power based on the specified parameters. Inclusion criteria were second-year nursing students without psychiatric problems who were taking the course for the first time. Students who missed more than two weeks of classes or who did not wish to participate in the research were excluded. The Caring Behaviors course is an elective course designed to cover the concepts and caritas processes of Watson's Theory of Human Care, delivered in weekly two-hour sessions over 14 weeks. The course was conducted online, synchronously, throughout this period. The intervention group comprised 37 students who enrolled in the course, whereas the control group consisted of 37 students who did not participate. For the qualitative component, volunteers were purposely selected from the 37 students who took the course. Almost all students volunteered; however, due to the nature of qualitative research, the interviews were concluded after the second focus group, with a total of 15 students, at which point data saturation was achieved.

Data Collection Tools

This study used both qualitative and quantitative methods. Quantitative data were gathered using a *Personal Information Form* with six questions and the *Care-oriented Nurse-patient Interaction Scale*. Qualitative data were collected via a Semi-Structured Questionnaire.

Personal Information Form

This questionnaire consists of seven items, including age, gender, place of residence, voluntary admission to the department, hospitalization experience, presence of a major illness in the family, and personal definitions of care.

Caring Nurse-patient Interaction Scale (CNPI-70)

Developed by Cossette et al.¹⁸ and validated in Turkish by Atar and Aşti¹⁹ in 2012, this scale is based on Watson's theory. It includes 70 items across ten sub-dimensions, assessing attitudes and behaviors in clinical practice using a 5-point Likert scale. Scores range from 70 to 350, with higher scores indicating more positive attitudes towards care-oriented nurse-patient interaction. The Turkish version's Cronbach's alpha values are 0.99, 0.98, and 0.99 for importance, adequacy, and applicability, respectively. In this study, Cronbach's alpha values for importance and applicability were 0.98 and 0.99, respectively.

Semi-structured Questionnaire

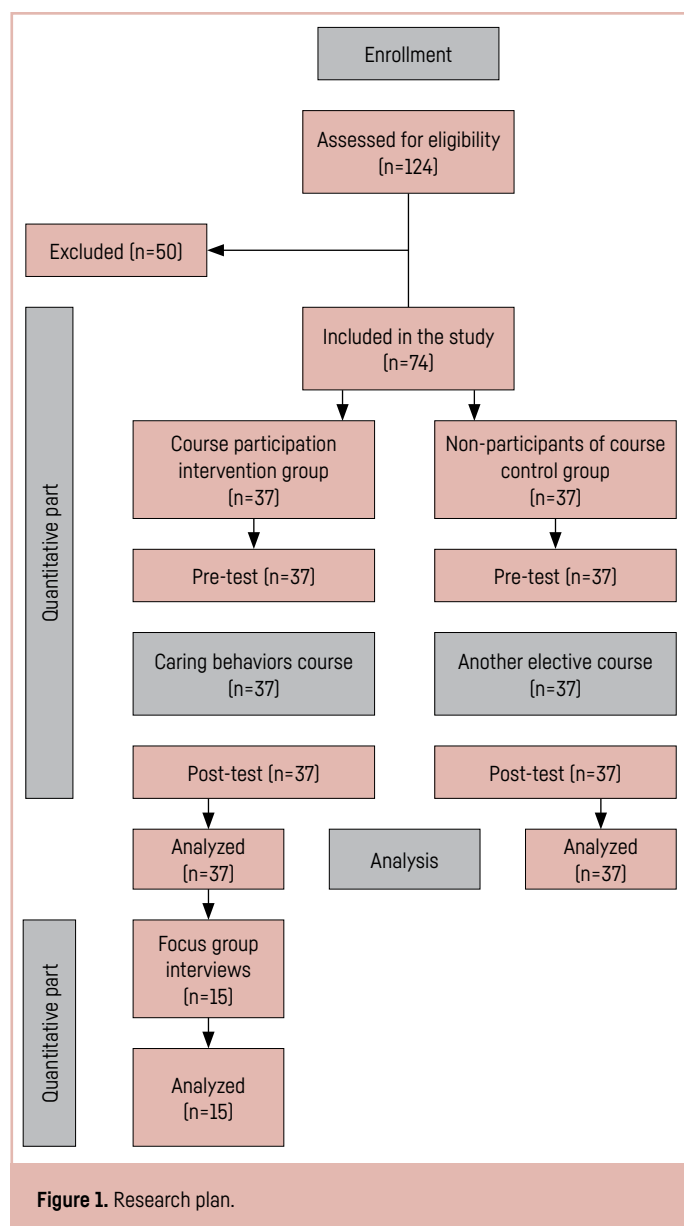
This form consists of six open-ended questions designed by the researchers to explore nursing students' perceptions of authentic education based on Watson's Theory of Human Care. It was prepared under the guidance of an experienced researcher who has been teaching qualitative research and theory courses at the doctoral level for many years. Additionally, five faculty experts from various fields of nursing were consulted for their opinions. Example questions include: "What does 'being care-oriented' mean to you?" and "How have your views on 'being care-oriented' changed after this course?"

Procedures

The elective Caring Behaviors course was structured and conducted over one semester based on Watson's theory. This course was taught synchronously online during the 2020–2021 Fall Academic Semester, spanning 14 weeks and totaling 28 hours. At the beginning of the semester, 124 second-year students were interviewed. Of these, 40 enrolled in the elective Caring Behaviors course, while 84 chose other elective courses. A total of 74 students completed a voluntary informed consent form, including 37 students from the Caring Behaviors course and 37 from other electives. All volunteer students completed a pre-test before the courses began and a post-test at the end of the semester. At semester's end, the 37 students who had taken the Caring Behaviors course were reminded about the qualitative interviews and invited to volunteer again. All agreed to participate. However, as data saturation was achieved with 15 students over two sessions, the study was concluded. The research plan is presented in Figure 1. Qualitative interviews were conducted on the same day as two focus group sessions via the online platform used for the course. The first session included eight students and lasted 82 minutes; the second included seven students and lasted 66 minutes. Data were collected by a researcher who was not responsible for teaching the course. Students were coded to ensure confidentiality. The first researcher, who had attended various care courses, conducted the course itself. The other two researchers had no teaching responsibilities, and all data were collected by researchers not directly responsible for the course.

Intervention Group

The elective Caring Behaviors course was structured and conducted over one semester based on Watson's theory. It was taught synchronously online during the 2020–2021 Fall Academic Semester, spanning 14 weeks and totaling 28 hours. The course focused on the moment of care, call for care, healing processes, interpersonal care relationships, and examples of good care and caring behaviors. The relationship between students and the educator was shaped in line with authentic learning processes integrated into Watson's theory. These processes, outlined above, were used whenever a student interacted, both in and out of class, to create a culture of care and ensure that students reflected this humanistic relationship in their caring behaviors. Students participated in the course not as passive listeners but as active participants drawing on real-life experiences. In line with the nature of authentic learning, students were asked to prepare reflective writings and share real-life and personal experiences on the weekly topics before class, and all students actively participated by discussing these preparations during the lesson. Reflective writing, through the reading and responding to students' reflective narratives, facilitates the development of clinical reasoning. This is achieved by promoting mindfulness during clinical encounters, which includes exploring patient narratives and initiating diagnostic reasoning. The process also involves challenging existing assumptions, examining the emotional responses of both patients and students, and encouraging the consideration of alternative perspectives.²⁰ In this study, reflective writing was used to bring life experiences, an important component of authentic learning, into the classroom. Students were asked each week to write about their own, their families', or their loved ones' illness or hospitalization experiences and bring them to class. These real-life experiences were discussed by the whole class, with at least two writings tied to the weekly topic. The current situation was explored in depth, especially through "slowing down," a core element of reflective writing. First, the student who prepared the writing read it aloud to the whole class. Then, the rights and wrongs of the situation were discussed. Students whose ideas and feelings were most engaged were asked further questions, such as: "How would you want to be treated if you were this person?," "What would you do if you were caring for this person?," "What are



the essentials in caring for him/her?" and "What diagnoses would you consider, and what would you do?". They were then asked to write down their ideas and feelings. The writings were read aloud in class by volunteers. Reflective writings related to each dimension of the process were discussed weekly, and the training schedule is presented in Table 1.

Control Group

No intervention was applied to the control group; students in this group took other elective courses that did not include topics related to caring behaviors.

Ethical Dimension

Ethical approval [No. 2021/280] was granted by the Ethics Committee. Students were informed about the study at the outset, and it was conducted with those who consented to participate. To avoid bias, quantitative and qualitative data were collected by researchers who were not responsible for the course. No identifying information was requested to ensure anonymity. Qualitative data were labeled as S1, S2, and so on. The study was conducted in accordance with the Declaration of Helsinki principles. Artificial Intelligence (AI)-supported technologies were used to edit the translation of the manuscript from Turkish into English.

Data Analysis

Quantitative data were analyzed using IBM SPSS v.23 [IBM Corp., Armonk, NY, USA]. Data were presented with descriptive statistics such as numbers, percentages, arithmetic mean, standard deviation, median, and minimum and maximum values. The conformity of the data to a normal distribution was examined. The chi-square test was used for categorical variables, and the Mann-Whitney U test for continuous variables, to verify differences in demographic and personal characteristics within and between groups. Caring Nurse-Patient Interaction Scale [CNPI-70] scores were compared between groups using the Mann-Whitney U test and within groups using the paired samples test. The statistical significance level was set at $p < 0.05$.

Qualitative data were analyzed using Creswell's [2017] six-step thematic analysis: transcribing interviews, reading and noting data, categorizing and coding, creating themes, presenting themes, and interpreting data.¹⁴

Assignments were evaluated using content analysis following Strauss and Corbin's [1998] method: combining writings, analyzing them in detail, and integrating the results with focus group data.²¹

Validity and Reliability

Following Morse's²² approach, validity and reliability were addressed throughout the entire research process, from design to interpretation, rather than only at the final stage. Before implementation, the semi-structured questions were reviewed by five experts. After the focus group discussions, data were analyzed separately by two researchers using Creswell's six-step qualitative data analysis approach. First, the audio data were transcribed, prepared, and organized for analysis. Then, all the data were read, coded, and analyzed to generate themes and explanations. These themes were subsequently transformed into narratives, and the findings were interpreted.¹⁴ The codes and themes generated by both researchers were compared, and similarities, overlaps, and differences were evaluated. The final version of the themes was determined through consensus on the differing points, with most themes showing a high degree of similarity and harmony. The Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist was used to report the manuscript.²³

Results

The median age of the students was 20, with 89.2% of the intervention group and 86.5% of the control group being female. In the intervention group, 59.5% of students reported that they had willingly chosen their department, compared with 54.1% in the control group. Most participants in both groups reported family health issues. There were no significant demographic or personal differences between the groups ($p > 0.05$). The results are shown in Table 2.

Findings of the Care-focused Nurse-patient Interaction Scale

A statistically significant increase was observed in the CNPI-70 importance scores within the intervention group, accompanied by a notable difference in post-test scores between the intervention and control groups ($U = 249.500$, $p = 0.000$). A statistically significant difference was found between the pre-test and post-test scores within the intervention group, indicating the effectiveness of the intervention ($t = -3.778$, $p = 0.001$). A statistically significant difference was also observed in post-test scores for the CNPI-70 applicability subscale, favoring the intervention group ($U = 251.500$, $p = 0.000$). Moreover, a significant within-group difference was observed in the intervention group ($t = -3.997$, $p = 0.000$). In the intervention group, no significant differences were found in pre-test scores across the CNPI-70 sub-dimensions [humanism, hope, sensitivity, helping relationship, emotion, problem-solving, teaching, environment, needs, and spirituality] ($p > 0.05$). However, post-test scores showed significant improvements ($p < 0.01$). No statistically significant within-group differences were observed in the control group for the CNPI-70 overall importance, applicability, or its sub-dimensions ($p > 0.05$) [Table 3].

Findings Related to Qualitative Data

Qualitative data included focus group interviews and reflective writing from 15 Caring Behaviors students (12 female and three male). Four themes emerged: [1] humanism, [2] altruism, [3] awareness, and [4] authenticity. The findings are summarized below.

Table 1. Watson's theory-based training program

Watson's theory-based subject headings	Concepts related to watson's care science curriculum (Hills et al., ⁹ 2021)	Authentic learning methods used
Week 1 Concept of care	Care: Developing caring knowledge is a philosophical and epistemic process. Nursing educators should support students' growth into compassionate nurses, valuing relationships and fostering development.	Students were warmly welcomed, introduced, and engaged in setting classroom rules. The concept of care was discussed to raise their awareness.
Week 2 Human care theory – moment of care	Relational Ontology: Connecting students by sharing and respecting their experiences and interpretations with the educator.	Each student shared a proud memory, discussed positive emotions, and received appreciation to reinforce their caring memory and self-belief.
Week 3 Being present, offering presence, authentic listening	Care Awareness: Nurse educators must be consciously aware of their intention both to protect students' dignity in the classroom and to support them on their learning journey.	Students shared their answers to "Who is a nurse?" in class, promoting group synergy and enhancing professional awareness through reflective writing.
Week 4 Accepting the individual, being person-centered, providing comfort	Integrity and Holism: These concepts teach students to view individuals holistically, considering both their environment and physical dimensions. Reflection: This component involves recalling practice experiences to gain insight through reflection.	Students shared their personal care experiences and expectations through responses to questions about their hospital treatments.
Week 5 Eye contact, calling by name, smiling, touching	Care Awareness: Nurse educators must be consciously aware of their intention both to protect the dignity of students in the classroom and to support them on their learning journey.	Students were invited to share positive and negative nursing examples from the media in class and to express their feelings openly.
Week 6 Student presentations (on caring behaviors)	Love: In nursing education, this concept involves ethically supporting and inspiring students to enhance their learning and success.	Students presented and discussed their pre-prepared writings on caring behaviors, highlighting the concept of love and its role in nursing.
Week 7 Humanitarianism dedication, hope, and sensitivity	Care: Developing caring knowledge is both philosophical and epistemic. Educators guide students to become compassionate nurses, supporting their growth and valuing their relationships.	Sample care practices emphasizing the healing power of nursing were shared in articles, read by students before class, and discussed during the session.
Week 8 Help, trust relationship, expression of feelings	Care Relationship: Rooted in respect, dignity, and freedom, caring relationships with instructors help students form similar bonds with patients and colleagues.	Each student was asked to write about the type of nurse they would want to receive care from, and prominent concepts were discussed in class.
Week 9 Problem-solving, teaching, and learning	Care Awareness: Nurse educators must consciously protect students' dignity and support their learning journey.	Awareness was raised through videos on individualized learning and teaching.
Week 10 Improvement processes – recovery environment	Integrity and Holism: These concepts help students recognize that individuals are interconnected with their environment and cannot be understood solely through their physical dimensions.	Students drew and discussed pictures of caring behaviors, focusing on how the care environment impacts recovery.
Week 11 Healing processes –helping with physical, emotional, and spiritual needs	Care Relationship: Grounded in values like respect for life, dignity, and freedom, caring relationships with instructors help students form similar connections with patients and colleagues.	Students imagined their hospitalization experiences and shared their needs, helping them recognize expectations and support individualized care.
Week 12 Healing processes –spirituality	Relational Ontology: Students connect with the educator by sharing and reflecting on their experiences, respecting each other's ideas, beliefs, and stories.	A real example of good care experienced by the trainer was shared with the class and discussed as a real-life experience.
Week 13 Student presentations	Reflection: This component involves recalling key aspects of experiences to gain insight and reflect on reactions and feelings.	Students' top three care-related articles were selected by class vote and published on the nursing department's website.
Week 14 Evaluation	Love: This concept emphasizes ethical practice and inspiring students by contributing to their learning and success.	Students freely evaluated the educational process.

Theme 1. Humanism

Students who participated in the study reported that, before taking the course, they believed nursing focused only on the physiological aspects of the human being. After completing the course, they realized that nursing approaches the human being from a much broader perspective, viewing each person as a unique individual. They also came to understand the importance of recognizing, loving, and valuing the person while providing care. One student expressed the importance of understanding human beings in nursing care as follows:

"Care begins with understanding a person and their needs. Respect, love, and making them feel valued are crucial." [S12]

Students expanded their understanding of nursing care from focusing solely on physiological needs to embracing universal caring behaviors. It is evident from one student's reflective writing that care extends beyond physiological needs:

"I used to think of care as taking blood pressure, oral care, or foot care... But after this course, I think care is not looking, it is seeing, protecting, tolerating, welcoming, feeling good, making them feel good, and understanding." [S15]

Another student expressed a similar idea in their reflective essay, stating that two approaches to care exist:

"We have two ways of giving care: one is through routine tasks that are the same for everyone, and the other is through individualized care that we offer by bringing caring behaviors with us."

Students emphasized the importance of accepting human beings as a whole and providing holistic care. They highlighted love and respect for people as essential components of nursing care:

Table 2. Comparison of characteristics of intervention and control group

	Control group (n=37)		Intervention group (n=37)		t*	p
	Mean±SD		Mean±SD			
Age (mean±SD)	20.19±2.36		20.00±2.36		-0.403	0.927
	n	%	n	%	χ ²	p
Sex						
Female	32	86.5	33	89.2		
Male	5	13.5	4	10.8	0.126	0.722
Place of residence						
Province	20	54.1	14	37.8		
District	13	35.1	12	32.4		
Village	4	10.8	11	29.7	4.365	0.113
Willingness to come to the department						
Yes	20	54.1	22	59.5		
No	17	45.9	15	40.5	0.220	0.815
Previous hospitalization experience						
Yes	15	40.5	15	40.5		
No	22	59.5	22	59.5	0.000	1.000
A family member has a significant health problem						
Yes	22	59.5	23	62.2		
No	15	40.5	14	37.8	0.570	0.812

*: Independent samples t-test, χ²: Pearson chi-square. SD: Standard deviation

Table 3. Distribution of intervention and control group students' Caring Nurse-Patient Interaction Scale (Short Form) [CNPI-S] importance and applicability total mean/median scores before and after training

CNPI	Control group (n=37)	Intervention group (n=37)	Test ^a	p
	Mean±SD/median (min-max)	Mean±SD/median (min-max)		
CNPI-importance total				
Pre-test	287.35±33.09/ 284 [210–348]	298.16±35.73/ 295 [216–349]	U=578.000	0.249
Post-test	290.62±31.53/ 283 [212–344]	327.16±27.95/ 344 [278–350]	U=249.500	0.000
Test ^b ; p	t=-0.436; 0.665	t=-3.778; 0.001		
CNPI-applicability total				
Pre-test	285.41±33.62/ 276 [190–345]	295.14±38.26/ 297 [205–345]	U=572.000	0.222
Post-test	288.11±39.58/ 280 [213–350]	326.89±27.40/ 344 [279–350]	U=251.500	0.000
Test ^b ; p	t=-0.317; 0.753	t=-3.997; 0.000		

^a: Mann-Whitney U Test, ^b: Paired samples test. SD: Standard deviation

"We must first see the person as a whole, showing love and respect. Essential caring behaviors include establishing trust, smiling, helping, and keeping promises to make them feel genuinely supported."

Theme 2. Altruism

Most students reported changes in patient interactions and care orientation after the course, showing increased readiness to help, greater emphasis on altruism, and more enjoyment in helping relationships:

"We sense people's silent cries and rush to help. The feeling of touching a life and being a healer is indescribable. Their smiles and admiration make me feel like a hero." [S6]

In one assignment, another student described nurses are superheroes who appear in moments of danger and fear to provide support:

"In superhero movies, characters like Batman and Spider-Man are admired, but the real heroes are nurses. They show up in our most dangerous moments, thinking of patients at all times..."

Another student used a metaphor about care in their reflective writing:

"Care is about being the door that the individual trusts and making them feel that they can knock on that door at any time."

Theme 3. Awareness

The findings identified two sub-themes: individual awareness and professional awareness. Most participants reported positive developments in both areas.

Subtheme 1: Individual Awareness

All participants stated that the course fostered greater self-awareness as nurse candidates. Some sample statements include:

"Knowing that you will be a nurse, knowing that you will help people you don't know, being aware that you will do something to help someone regain their health is a feeling that makes you very happy and makes you proud of yourself." [S7]

Students also expressed that they realized they would be able to provide better care to patients after this course and felt proud of themselves:

"The basis of nursing is care. This course has been effective, as if completing a piece of the puzzle, and I do not doubt that we will be very good caring nurses in the future... I am proud of myself" [S12]

Subtheme 2: Professional Awareness

In their responses, students stated that the Caring Behaviors course helped them develop professional awareness of nursing. Sample statements are presented below:

"I understood, heard, felt, grasped nursing, and reached all these thoughts thanks to this course." [S15]

Many statements in the reflective writings emphasized professional awareness. Examples include:

"Nursing is an art. Just as an artist cares and values his art, a nurse approaches the individuals they care for with love and compassion... For many people, nursing is seen as a profession, a duty, but it is not just a duty; it is more than that."

Theme 4. Authenticity

Students emphasized authenticity, noting that care should not consist of standard, robotic behaviors but should instead be offered naturally and sincerely:

"I think care should be natural; being contrived does not change anything in the other person. On the contrary, they feel that they are not taken care of, and they may suffer emotionally and physically." [S5]

Some students spoke about the authenticity of caring behaviors, stressing that nurses acting like robots hinder good care, and highlighting the importance of authentic listening. Sample statements include:

"In my opinion, care... most importantly, even a smile can be giving care. If the nurse never smiles and acts like a robot, this is not an example of good care." [S1]

"Authentic listening means that the more authentic and sincere a person is, the more natural and personalized the care that results." [S8]

In another reflective writing, one student used the following statement:

"We are committed to healing through voice, touch, and expressions. Authenticity is crucial, as patients value genuine interactions."

Discussion

Historically, nurses have emotionally distanced themselves, focusing on treatment rather than engaging in patients' life journeys.²⁴ Nurses must graduate with the ability to provide holistic care that addresses both the disease and the person.²⁵ Educators should understand care concepts, use appropriate models, and apply pedagogical methods reflecting these models. Watson's theory offers a framework for this, and the authentic learning method aligns with its philosophy.^{9,26} The study found that combining Watson's theory with authentic learning improved students' care orien-

tation. Quantitative results showed that students who took the course developed more positive attitudes toward care-oriented nurse-patient interaction. These students also recognized the importance and applicability of care in all sub-dimensions of the measurement tool derived from Watson's concepts. In the literature, studies on care orientation have generally focused on its quantitative dimension. One study reported that students' perception of caring behaviors improved as their academic year progressed.²⁷ The present study demonstrated that authentic education based on Watson's theory significantly improved care perception among the trained group compared to both pre-training and untrained groups, despite participants being second-year students with initially low care perception. Nursing students often prefer interactive, modern education over outdated, one-way didactic methods.²⁸ In this study, authentic learning methods replaced one-way knowledge transfer by incorporating weekly reflective writings, discussions of personal drawings, and sharing proud moments. These strategies enhanced students' real-life understanding, professional awareness, and care awareness. Writing clinical narratives has been shown to aid self-reflection and emotional expression.²⁴ The purpose of reflective writing in nursing is to help students organize their thoughts, reflect on experiences, and foster the growth of clinical judgment. Reflection enables students to better understand their patients' problems and prepare themselves for future patient encounters. Reflective writing assignments thus provide a structured platform for students to reflect on their clinical experiences.²⁹ This study suggests that reflective writing, an authentic learning method, is effective in broadening perceptions of care not only because it inherently supports clinical preparation but also because it is integrated into Watson's philosophy of care. In this context, Huang et al.³⁰ found that guided reflection-based education improved empathy, caring behaviors, and competence in first-year nursing students. Reflective writing allowed students to connect deeply with the concept of care through real-life experiences. In Norman et al.'s study,²⁴ a hospital where care is provided according to Watson's theory was examined. In this setting, nurses behaved authentically, guided by scientific articles reflecting examples of good care. They reported witnessing miracles through creating a healing environment and celebrated their compassionate hearts. Nurses in the same hospital were further motivated by receiving the "Compassionate Care Award," based on a patient's "thank you" letter.

Qualitative findings revealed themes of humanism, altruism, awareness, and authenticity. Watson claimed that reducing an individual to the status of an object is contrary to the philosophy, values, heritage, theories, and professional perspective of nursing.^{9,31,32} This study found that students developed a broader understanding of care beyond a mechanistic perspective. While no other study has used authentic learning specifically based on Watson's theory, similar results are supported in the literature. Smith and Kennedy found that authentic learning in an evidence-based practice course enhanced in-depth learning and supported both collaborative and independent work.³³ Another study reported that an authentic learning environment reduced nursing students' stress while improving their altruism and emotional intelligence.³⁴ In an oncology nursing course, students watched six videos by Ann, a nursing professor with breast cancer, as an authentic learning activity. The videos covered diagnosis, surgery, treatment, and survival. Students reported increased awareness of humanistic care, particularly the importance of compassion in patient interactions.³⁵ Our study, based on Watson's theory, showed that students developed humanism, altruism, awareness, and authenticity in care. The literature indicates that patients prefer authentic nurses and find them more reliable.¹ Authentic care involves nurses understanding both patients' words and feelings.²⁴ The course fostered authenticity by encouraging students to freely express their feelings and thoughts. In this context, reflective writing proved effective. A qualitative meta-synthesis study reported that reflective writing fosters reflection and self-reflexivity, which in turn support skill development, professional growth, and adaptability to change, while also cultivating empathic attitudes and sensitivity toward one's own and others' feelings. The same study emphasized the importance of incorporating reflective writing into education.²⁸

Nurse educators must also understand their own perceptions of care to effectively develop and enhance students' perceptions.^{31,36} In this study, the researcher observed essential caring behaviors, such as using names, smiling, showing empathy, and expressing appreciation. Both educators and students practiced these behaviors, fostering a supportive learning environment. This affective climate helped students realize that caring behaviors are both important and applicable, while also allowing them to feel proud of themselves. Hills et al.⁹ note that the caring interaction between students and educators closely resembles the caring interaction between patients and nurses. The concept of "Caritas" in Watson's healing processes

represents “loving, caring, appreciation, kindness, compassion, and generosity of spirit.”^{24,32} Caritas processes foster healing, honor, and humanity, with nurses viewing care as a calling rather than merely a job.^{2,24} In this study, the caring interaction between students and educators, facilitated through authentic learning methods, enhanced students' perception of care. By engaging in authentic listening, showing empathy, and providing sincere responses, students recognized the value and applicability of caring behaviors, thereby promoting a person-centered, holistic approach.⁹

Limitations of the Study

The study's limitations include the small number of students due to the elective nature of the course, the online education necessitated by Coronavirus Disease 2019 (COVID-19), and its being conducted at a single institution, which limits generalizability.

Conclusion and Recommendations

The Caring Behaviors course, based on Watson's Theory and authentic education, increased nursing students' awareness of care orientation and broadened their focus to humanistic concepts such as humanism, altruism, authenticity, and awareness. It is recommended that these concepts and processes be integrated into the nursing curriculum early on through authentic and active learning methods, as demonstrated in our study.

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Informed Consent: Written informed consent was obtained from the participants.

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