

Defining Caring Efficacy for Nursing Students in South Korea: A Mixed-Method Analysis

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Abstract

Introduction: Caring efficacy is a core nursing concept, but its application in nursing practice remains unclear.

Objective: This study analyzed the meaning and attributes of caring efficacy among nursing students, defined caring efficacy in this context, and identified the substantive constituents of the concept.

Methods: This hybrid study analyzed and compared data from a literature review and in-depth interviews with students in the clinical practice stage of a nursing program, according to the model suggested by Schwartz-Barcott and Kim.

Results: The results revealed five attributes of nursing caring efficacy and 17 indicators across two dimensions. Considering the attributes identified in theoretical work and fieldwork, this study defined nursing students' care efficiency based on their "qualifications and personality for caring" as "self-confidence in caring capabilities," rooted in their "growth through caring experience" and the conditions of their "educational environment for learning caring and social support."

Conclusion: The findings could guide the development of nursing caring efficacy scales. Future studies should explore caring efficacy among professional and student nurses in various clinical fields.

Keywords

caring efficacy, nursing students, self-efficacy, caring self-efficacy, South Korea

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Introduction

Caring is an ethical and moral ideal and a concept central to nursing practice (Watson, 1988, 2009). Caring efficacy provides a growth direction for professional nurses (Benner & Wrubel, 1989). Research is needed to clarify caring as an integrated term that differentiates nursing from other professions and to recognize it as a core nursing concept (Lee, 1996). Previous studies have focused on caring behaviors, attitudes, attributes, and efficacy based on caregivers' perceptions. Although caring ability, competency, experience, satisfaction, and assessment have been combined and evaluated from various perspectives, they have not been examined as an integrated concept (Kim & Park, 2018).

Caring efficacy comprises self-efficacy in expressing concern and care for patients and confidence in one's ability to develop professional relationships (Reid et al., 2015; Sadler, 2003). This study focuses on caring efficacy because the capacity for caring is dependent on an individual having developed moral sensitivity and compassion for others (Park, 2015). Moreover, Park (2015) suggests that self-measures of confidence in one's caring ability are more valid than measures that focus on caring behaviors.

Caring behaviors are usually measured by tools that conceptualize caring with a focus on therapeutic interventions (Morse et al., 1990). The view is to highlight work-centered and caring-related nursing capabilities and skills. Therefore, caring behaviors are limited to primary caregivers, such as social workers and teachers. As caring efficacy is about self-conviction regarding caring, this study considers caring efficacy to be widely applicable to not just professional caregivers but also nursing students, who learn about caring.

Social cognitive theory states that cognitive and psychological attributes, such as self-efficacy, should be examined to promote caring behavior (Bandura, 1977, 1997). It is linked to the principles in which the determinants of human behaviors are changed owing to individual–environment interactions, which changes self-efficacy and determines behaviors. For nursing students, caring self-efficacy is

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shaped by the nursing curriculum and is an important predictor of caring ability in clinical settings (Simmons & Cavanaugh, 2000). The National League of Nursing, an international organization, has indicated the need for a care-centered nursing curriculum that emphasizes humanistic values rather than technical skills (Bavier, 2015).

As prospective nurses, nursing students in college prepare to build therapeutic relationships with patients through learning and training (Chan, 2002). Engaging in nursing interventions can ease anxiety as nurses often experience negative emotions during clinical practice (Oh et al., 2015). According to nurses' experiences, while the basics about self-efficacy for caring began in their college years, they noted there was a clear gap between theory and practice (Alavi et al., 2015).

In South Korea, nursing students experience high levels of stress about clinical practice owing to maladaptation to unfamiliar clinical settings, a lack of expertise and skills, a lack of self-confidence, nervousness about caring for patients, and difficulties with interpersonal relationships. A high level of caring efficacy may reduce this stress, promote learning, and enhance self-confidence and motivation among nursing students during clinical practice (Kim & Do, 2019). This study thus analyzed the concept of caring efficacy among nursing students.

Until now, the only care-related concept analysis conducted in South Korea was Lee's (1996) study on the concept of care. A study exploring the relationship between caring efficacy among nursing students (Lee & Cho, 2021) identified differences in perceptions of care between nurses and nursing students, emphasizing the need to develop conceptual analysis methods and tools to measure nursing students' caring efficacy. Nursing students' caring efficacy is a key factor predicting their caring abilities in the clinical environment (Simmons & Cavanaugh, 2000). A high level of caring efficacy can reduce nursing students' clinical practice stress, promote learning, and improve confidence and motivation (Kim & Do, 2019; Lee, 2022). However, a tool to measure nursing students' caring efficacy has not been developed. In addition, it has been challenging to identify research specifically focusing on the concept of caring efficacy, which is the basic data needed for the caring efficacy measurement tool for nursing students and nurses. Another study examined the nursing implications of caring efficacy and the deduction of conceptual frameworks (Choi, 2022a). Additionally, a literature review analyzed domestic research on caring efficacy (Choi, 2022b) but did not sufficiently explore the concept from various angles. Consequently, previous work on the topic is limited. Therefore, this study identified the components of caring efficacy among nursing students in South Korea to provide a definition applicable to nursing students in the fieldwork stage of nursing education.

Methods

Design

This study utilized a hybrid conceptual analysis approach to examine caring efficacy among nursing students. It

comprised three cyclical stages: theoretical analysis, fieldwork, and final analysis (Schwartz-Barcott & Kim, 2000). In the first stage, a literature review was conducted. In the second stage, individual in-depth interviews were conducted. In the third stage, the results of the literature review and the data derived from the in-depth interviews were comprehensively compared and analyzed. Hybrid analyses generally include cases chosen for examination after field research has been conducted. However, this study replaced the field research with in-depth interviews of students in the clinical practice stage of the nursing program, as the concept of caring efficacy is difficult to observe directly in the field.

To validate the results, the first author analyzed and provided the results to participants, who were asked to confirm whether the results reflected what they meant. Furthermore, the first author discussed and reviewed the names of subcategories and categories analyzed in the results with two nursing professors with ample experience in qualitative research. This increased the reliability and validity of the results, and the agreement rate was 92%. By transcribing participants' statements, the reliability of the data was increased. To further ensure reliability, the first author repetitively read the transcripts and considered other possible interpretations. Moreover, this study achieved auditability by describing in detail how participants were recruited and how data were collected. Statements made by participants were included to demonstrate the relevance between the extracted topics and the raw data. By providing diversity to the phenomenon and describing the phenomenon in depth as much as possible, this study increased fittingness.

Procedures

First, the literature was reviewed, and the conceptual definition, attributes, and dimensions of caring efficacy were analyzed (Schwartz-Barcott & Kim, 2000). Second, in-depth individual interviews were conducted to clarify the provisional definition and develop a theoretical framework. Third, the collected data were compared and analyzed to provide a definition for the consolidated concept that embodies the attributes and dimensions of caring efficacy for student nurses.

Data Collection and Analysis

Theoretical Stage. The literature on caring efficacy among nursing students was reviewed. South Korean studies were sourced from the Korea Citation Index, Research Information Service System, DBPIA, and Korea Institute of Science and Technology Information. International studies were sourced from Embase, Cumulative Index to Nursing and Allied Health Literature, and PubMed. The search terms included "caring efficacy," "caring self-efficacy," and "nursing students." Studies published between 1997, the year when the measurement tool for caring efficacy was

developed (Coates, 1997), and March 2022 were included. After deduplication and selection, 53 South Korean dissertations, 31 South Korean academic studies, and 102 international studies were retrieved. Finally, 26 South Korean and 49 international studies were selected for the analysis.

Fieldwork Stage. Nursing students unrelated to the researcher, with more than three semesters of clinical practice, were recruited for in-depth interviews. Participants underwent a single-blind test, with information about the interviewer concealed. To recruit participants, the researcher explained the study's purpose and sought permission from professors in the nursing college. One nursing student was recommended, and additional participants were gathered through snowball sampling. The researchers recruited 10 senior nursing students (eight women, two men) aged 22–42 years until saturation was reached (Table 1).

This study was approved by K University (no. **IRB-344). Written informed consent was obtained from all participants. Participation was voluntary, and confidentiality and anonymity were ensured. Interviews were recorded with participant consent, and participants received gift certificates as compensation.

Based on the results of the first stage, in-depth individual interviews were conducted to clarify the definition and attributes of caring efficacy according to nursing students' individual characteristics and the environment. Nursing student interviews and analyses were conducted cyclically, with data collection determined based on the analysis results. Content analysis was conducted to systemize and simplify complex data into meaningful topics or categories (Graneheim & Lundman, 2004).

Interviews were conducted from September 1 to November 30, 2022, including 3-month follow-up interviews. The interviews were conducted in a coffee shop near the participants' residences or another location conducive to comfortable conversations. Interviews lasted 50–90 min and were conducted once or twice per participant. Data collection continued until saturation was reached. Nonverbal language, such as participants' attitudes and emotional changes, was noted as a reference for analysis. Semistructured open-ended questions developed for this study, based on the literature review, the researcher's experience as a nursing professor, and advice from qualitative research experts, were utilized. At the time of this study, the primary researcher had worked in university hospitals for approximately 20 years and taught undergraduate and graduate university nursing courses for 9 years. Questions included "When you hear 'caring efficacy,' what comes to mind first?" "When have you experienced positive or negative emotions during clinical practice in caring for patients?" and "During your experience providing care to patients (clinical practice) so far, in what cases have you felt that caring was a good fit?"

Interviews were transcribed by the researcher, and missing portions in participants' responses to the question list were used as a guide for subsequent interviews with those participants. The transcripts were read repeatedly to ensure a comprehensive understanding of participants' experiences and to gain insights into the research phenomenon (Graneheim & Lundman, 2004). Significant data were abstracted and analyzed for coding, including meaning units, connotation units, subordinate themes, and topics. To confirm the validity of the methods and results, derived data and topics were reviewed by two experts and two senior nursing students from another university. The results were then revised based on their feedback.

Final Stage

The findings from the literature review and interviews were integrated and analyzed. The dimensions and properties of caring efficacy among nursing students were verified, leading to the construction of an overall definition of caring efficacy.

Results

Theoretical Stage

According to the Oxford English Dictionary (2008), "caring" involves being "kind, helpful and showing that you care about other people," while "self-efficacy" is "the ability of something to produce the results that are wanted." Moreover, the Standard Korean Language Dictionary (2022) defines "caring" as "the act of maintaining or promoting a healthy life and helping to recover health, regardless of whether one is healthy or not" and "self-efficacy" as "one's belief or expectation of their ability to solve problems through appropriate behaviors in a specific situation." Therefore, this study defined "caring efficacy" as a belief in or expectation of problem-solving with appropriate behavior in a situation of maintaining and improving health and assisting restoration.

The combined and dictionary meaning of "self-efficacy for caring (taking care of someone)" (Kim, 2008) was similar in the fields of social welfare, in which research on caring efficacy is active, and nursing; however, the meaning of the definitions of this term differs slightly across these fields (Choi, 2022a). In social welfare, care has been mainly used to refer to specific services provided in the community, such as care for older adults and children (Kim, 2017). In nursing, definitions of care primarily focus on "physical care," situating care as labor performed by those who care for a specific dependent group, a social activity required for the maintenance and reproduction of social members, and essential physical labor (Daly, 2002). Therefore, "care" is a comprehensive and multidimensional concept (Choi, 2022b). Contrastingly, the common characteristic of "care as practice and ethics" (Kim et al., 2020)

Table 1. Participant Characteristics (N = 10).

No.	Sex	Age (years)	Grade	Religion	Satisfaction with major	Satisfaction with clinical practice
1	F	23	4	No	High	High
2	F	42	4	No	Medium	Medium
3	F	22	4	No	High	High
4	F	22	4	No	High	High
5	M	25	4	No	High	High
6	F	22	4	No	High	High
7	F	23	4	Yes	Medium	Medium
8	M	26	4	Yes	High	Medium
9	F	22	4	No	Medium	Medium
10	F	23	4	No	High	High

F, female; M, male. Participants' satisfaction values were self-reported.

was found at the core of the professional relationship formed with clients (Kim, 2017). In education, a study on the caring efficacy of childcare teachers who care for children with attention-deficit/hyperactivity disorder (ADHD; Kim et al., 2020) found that the factors influencing teachers' caring efficacy were attitude toward ADHD, level of education, and recognition of the need for ADHD education. Self-confidence alone is not considered efficacy, but "caring efficacy" is defined as accurately recognizing one's care capabilities and making efforts to fill in what is lacking.

Studies on caring efficacy in nursing mainly focused on caring before 2000 and caring efficacy after 2000. Investigations of caring efficacy increased considerably after 2015. However, most descriptive studies were quantitative and focused on nursing students, using caring efficacy as an outcome or independent variable (Choi, 2022a). However, in domestic nursing research, there were no qualitative or concept analysis studies on caring efficacy or studies on the development of caring efficacy tools, and the definitions of caring efficacy from overseas studies were mainly borrowed. Among them, most used the translated, modified, and supplemented tools and definitions of the Caring Efficacy Scale (Form B) developed by Coates (1997) for American nurses, nursing students, administrators, and hospital supervisors. Furthermore, most overseas studies on caring efficacy were quantitative studies that verified the application or reliability and validity of Coates' tool for nurses (Gonzalez et al., 2019; Reid et al., 2015). In addition, some qualitative content analyses were conducted on factors influencing pediatric nurses' recognition of caring efficacy (Alavi et al., 2015), the effects of simulation-based educational programs on nurses' caring efficacy, and measuring the caring efficacy of nursing students (Genuino, 2018). In nursing science, caring efficacy is defined as the ability to convey a caring orientation and self-confidence in one's ability to build caring relationships with patients (Coates, 1997). According to Reid et al. (2015), caring efficacy is nurses' self-confidence regarding the ability to express interest and care and develop and continue therapeutic relationships with patients.

Caring self-efficacy is the confidence in one's ability to provide patients with physical or psychological care (Northouse et al., 2010).

Caring efficacy in nursing students, as represented in the reviewed studies, was divided into six attributes, 19 categories, and three dimensions: personal, environmental, and theoretical (Table 2). In this study, "caring" was based on Watson's (1988) human caring theory, and "self-efficacy" was based on Bandura's (1977) social cognitive theory. Human caring theory emphasizes interpersonal caring relationships that influence and are influenced by nurses, akin to the human relationship between nurses and patients, and includes 10 "carative factors" (Watson, 1988). In Bandura's (1977) social cognitive theory, self-efficacy is a person's particular set of beliefs that determine how well one can execute a plan of action in prospective situations. Self-efficacy is formed by four main sources of information: mastery experiences, vicarious experiences, social persuasion, and psychological-emotional states. These sources of information are variables that have a key impact on self-efficacy (Bandura, 1997).

Consequently, this study determined a preliminary definition of caring efficacy related to nursing students: "self-conviction in the ability to develop interpersonal caring relationships based on various levels of social and psychological well-being, caring personality, caring-related capabilities, educational environment for learning caring, and social support."

Fieldwork Stage

Meaningful data were extracted from the interview data and then compared, contrasted, categorized, and encoded. After the process of abstraction, data were analyzed for meaning units, connotation units, subordinate themes, topics, and categories. Three categories, five topics, 18 subordinate themes, and 51 meaning units were extracted preliminarily; and three dimensions (personal, environmental, and theoretical), seven attributes, and 21 categories were extracted (Table 3).

Table 2. Components of Caring Efficacy Among Nursing Students Obtained During the Theoretical Stage.

Dimension	Attribute	Category	Explanation and theme	Source
Personal	Social and psychological well-being and caring personality	Subjective perception of health status	Self-efficacy	Shrestha et al. (2021)
			Resilience	Kim and Do (2019) [A1]
			Subjective perception of health condition or physical fitness level	Lee (2022)
			Healthy sleeping habits	Lee (2022)
			Subjective perception of physical fitness	Hong (2020) [A2] Kim et al. (2021) [A3]
		Subjective perception of experience of negative feelings	Experiences of disrespectful behavior during clinical practice decrease caring efficacy	Lee (2022)
			Academic stress	Lee (2022)
		Clinical practice satisfaction and adaptation	Experiences of feeling low during clinical practice	Je and Kim (2020)
			Caring efficacy is helpful in maintaining close relationships with patients in clinical practice	Lee (2022)
			Caring efficacy is the most influential factor in satisfaction in clinical practice	Kim and Do (2019) [A1]
			Satisfaction with clinical practice influences caring efficacy	Hong (2020) [A2]
			High satisfaction with clinical practice results in positive caring experience and increases caring efficacy	Lee (2022) Kim and Do (2019) [A1] Kim et al. (2021) [A3]
		Satisfaction with university's reputation and major	Negative experiences during clinical practice decrease caring efficacy	Park and Shin (2018) [A4] Sadler (2003) Park (2015) Thistlethwaite (2011) [A5]
			Adjustment in clinical practice	Je and Kim (2020)
Satisfaction with university reputation and major increases caring efficacy	Lee (2022) Park and Shin (2018) [A4]			
Self-awareness of caring personality and care	Eight factors of caring (8Cs): compassion, competence, confidence, conscience, commitment, courage, culture, and communication		Pusari (1998) [A6]	
	Nursing is concrete patient care involving compassion, competence, confidence, conscience, commitment, and comporment.	Roach (2002) [A7]		
	Nursing students' caring personalities include respect, compassion, sincerity, courage, commitment, professional attitude, professional ethics, and identity	Kim (2018) [A8]		
	Consideration and sympathy	Wei et al. (2021) [A9]		
	Nursing students' lists of values for humanity	Care, compassion, commitment, trustworthiness, and honesty Sobriety, honesty, punctuality,	Sellman (2007) [A10] Jowett (1997) [A11]	

(continued)

Table 2. Continued.

Dimension	Attribute	Category	Explanation and theme	Source
			truthfulness, and patience	
			Professional value in nursing and ethical sensitivity	Jin and Kim (2020) [A12]
			Ethical and moral sensitivity influences caring behavior	Han et al. (2008) [A13]
			Nursing professionalism	Je and Kim (2020)
			Attitude regarding caring and self-awareness	Reid et al. (2015) Coates (1997) Gonzalez et al. (2019)
			Positive relationship between self-awareness and self-efficacy	Hong (2020) [A2] Kim et al. (2021) [A3]
			Perception of caring and acceptability of patients	Sadler (2003)
	Caring-related capabilities	Caring experience	Positive caring experience	Sadler (2003) Park (2015) Wade and Kasper (2006) Milliken (2018) Ma et al. (2013)
		Professional knowledge of caring	Negative caring experience Professional knowledge of caring Knowledge of caring	Alavi et al. (2015) Shrestha et al. (2021)
		Ability to act in specific situations	Seeking social support and problem-solving are positively correlated with caring efficacy Avoidance is negatively correlated with caring efficacy Acting appropriately in challenging circumstances	Lee (2022) Shrestha et al. (2021)
		Clinical work competency	High clinical performance produces high caring efficacy, including problem-solving abilities, clinical judgment skills, leadership capabilities, and adaptability	Lee (2022) Lee and Hong (2020) [A14]
		Interpersonal relationship and communication skills	Social problem-solving abilities Interpersonal relationship	Park (2019) [A15] Kim et al. (2021) [A3] Lee and Hong (2020) [A14]
			Interpersonal competence	Yeo (2017) Park and Shin (2018) [A4] Song (2020) [A16] Lee and Cho (2021) [A17]
			Communication skills	Jeong and Kim (2019) [A18]

(continued)

Table 2. Continued.

Dimension	Attribute	Category	Explanation and theme	Source
		Emotional intelligence and empathy	Emotional intelligence	Yeo (2017). Kim and Do (2019) [A1] Hong (2020) [A2]. Kim et al. (2021) [A3] Park and Shin (2018) [A4] Song (2020) [A16] Jeong and Kim (2019) [A18] Gerry et al. (2012) [A19] Oh and Lee (2021) [A20]
			Empathic ability	Reid et al. (2015) Lee and Cho (2021) [A17] Jeong and Kim (2019) [A18]
Environmental	Educational environment for learning about caring	Educational environment and nursing education program that increases caring efficacy	Efficient education system influences perceptions of factors associated with caring self-efficacy Influence of the nursing curriculum Educational environment based on mutual trust between professors and students Supportive and knowledge-sharing atmosphere between professors and students and among students Respect and trust between professors and students Caring behavior displayed through interaction with students Caring projects and education programs Training on the use of caring code tools during clinical practice Role model teaching and learning methods Work environment that values caring thinking and emotion management Curriculum focused on caring Education programs based on caring theory	Alavi et al. (2015) Sadler (2003) Beck (2001) Simmons and Cavanaugh (2000) Tanner (1990) Park (2015) Lee-Hsieh et al. (2005) [A21] Sadler (2003) Ma et al. (2013) Wu et al. (2009) [A22] Noddings (1984) [A23] Nelms et al. (1993) [A24] Gonzalez et al. (2019) Lee-Hsieh et al. (2004) Ryan (2005) Sitzman (2007) Wu et al. (2009) [A22] Bent et al. (2005) [A25] Glembocki and Dunn (2010) [A26]

(continued)

Table 2. Continued.

Dimension	Attribute	Category	Explanation and theme	Source	
Theoretical	Interpersonal caring relationship	Educational environment for clinical practice that increases caring efficacy	Education programs on empathy	Jeong and Kim (2019) [A18]	
			Education programs that increase caring experience and perceptions	Ma et al. (2013)	
			Teaching and learning methods that connect experience to learning	Swanson (1999) [A27]	
			Nursing education programs that improve sensitivity intelligence	Kim et al. (2021) [A3]	
			Critical self-reflection programs	Sadler (2003) Cara (2003) [A28] Schaefer (2002) [A29]	
			Atmosphere and organizational climate in hospital wards for clinical practice	Han (2010)	
		Social support	Preceptor's attitude and positive feedback	Education in clinical practice to experience caring	Kim and Do (2019) [A1]
				Nurses as role models in caring	Je and Kim (2020)
				Clinical learning environment with caring practice through modeling nurses	Kim and Do (2019) [A1]
			Relationship of mutual trust and respect between professors and students	Attitude of and communication with the clinical preceptor	Han (2010)
				Professors' positive feedback	Shrestha et al. (2021)
				Relationships between professors and students based on respect and trust	Beck (2001)
Family support	Reciprocal relationships between professors and students in a supportive and knowledge-sharing atmosphere	Respect, trust, and ethicality between professors and students	Beck (2001)		
		Respect, trust, and ethicality between professors and students	Simmons and Cavanaugh (2000) Simmons and Cavanaugh (1996) [A30]		
		Social support	Lee and Cho (2021) [A17]		
	Caring relationship	Subjective perception of family support	Sadler (2003)		
		Honest communication with patients	Park (2015)		
		Self-growth through caring for patients			
Carative ^a factors	Internalized caring	Formation of humanistic and altruistic value systems	Watson (1988)		
		Inspiring belief and hope			
		Development of sensitivity in oneself and others			
		Development of support and trust in relationships			
		Emotional acceptance of negative and positive emotions and enhancement			
		Systematic use of creative problem-solving			
		Personal education and cultivation of learning competence			
Supportive, protective, and corrective educational environment					
Satisfaction with support for human needs					
Embracing existential, phenomenological, and spiritual power					

(continued)

Table 2. Continued.

Dimension	Attribute	Category	Explanation and theme	Source
	Self-efficacy	Four sources of self-efficacy	Mastery experiences Vicarious experiences	Bandura (1977, 1997)
Social persuasion				
Psychological and emotional states				

^aCarative is a contrastive term of existing concepts of caring presented by Watson (1988).

[A1–A30]: Appendix number.

Personal Dimension. The interviewed nursing students recognized qualities suitable for caring, such as a strong desire for growth, an outgoing character, and physical and mental health. These traits improved their confidence in caring. Moreover, they considered a caring personality to involve an attitude of listening carefully to clients and a commitment to recognizing a care recipient's position.

"To be good at caring, a desire for getting better and growth is required. My peers who want to take good care of patients study every day and share this the next day. Thus, mistakes are naturally reduced because they are conscious of things not to do" (Participant 1). "Those who have no desire for growth participate in clinical practice just to complete the course and do not consider how to make their patients feel more comfortable. They don't have sufficient recognition of caring for patients, I guess" (Participant 7). "I think that an outgoing, positive, and sympathetic person is good at caring because they have confidence and the power of optimism" (Participant 6). "I read in a book that a nurse should first take care of themselves. Physically and psychologically healthy nurses can look after others. I finally realized this only after I got sick a few days ago" (Participant 5). "Some nurses always respond to patients by saying, 'Please, wait.' But I think that a good nurse first listens to the patient once there is a request and tries to understand the patient's perspective" (Participant 3).

Participants gained confidence through positive experiences of caring and felt rewarded for being needed and thanked. They perceived growth after understanding and accepting patients' challenges.

"At first, I was afraid. I was worried about whether I could do well. I was even afraid of going into the hospital and wondered if I could get along well with my team members. However, the fear disappeared after I repeatedly experienced clinical practice" (Participant 2). "One patient felt lethargic like me, and we took walks for two weeks before my shift started. I felt great and gained confidence when I discovered that she talked more and looked brighter. I felt that I contributed to forming a relationship, although I was not giving her therapeutic or physiological medicine" (Participant 1). "Even when patients said something aggressive, I was able to go to the patients again without being influenced by them. This was perhaps growth in my caring ability" (Participant 8).

"At the beginning of clinical practice, I was easily hurt by the words that patients said to me, but now I can understand them from their side (laughs). Now, I feel that I have become a person like quartz" (Participant 4).

Participants believed that having diverse capabilities reflects self-confidence. They viewed caring capability as encompassing professional caring knowledge, volunteer experience, and problem-solving abilities to appropriately cope with patient demands using critical thinking. Confidence in building relationships with patients, communication skills, and empathy were the most frequently mentioned capabilities.

"Building rapport with clients is important, but I think that the most important thing is professional knowledge. With professional knowledge about diseases and symptoms, you can plan medical treatment and nursing. Therefore, expertise is the first thing, and rapport is the next. Knowledge about patients leads to attention and is connected to kindness" (Participant 2). "Volunteer work is helpful, too. I once did volunteer work. When I look back, even work like meal assistance was a helpful experience" (Participant 6). "When I first went to clinical practice, I felt that I was useless. Now, I know what to do, so I prepare and check everything in advance. By doing that, I can be helpful to nurses and patients in a busy work environment" (Participant 10). "I report important things to charge nurses after surgery even when not being asked to do so. They like it. Also, it is great when I voluntarily arrange medical supplies ahead of time. That is what I learned through experience" (Participant 6). "At the beginning of clinical practice, I had a hard time locating lines or equipment attached to a patient. Recently, I started checking them before I enter patients' rooms, so they feel more comfortable. That's how I learned the ropes" (Participant 9). "One time, a student lost a blood lancet, and I found it using the Binary Search Tree. I couldn't do that when I was new in clinical practice (laughs)" (Participant 3). "I think my caring capacity increased because I don't see patients based on a single aspect now. I try to think about what makes them suffer. When a patient says that they are sick, I ask them why and how it happened. I guess this attitude contributed to building caring capacity" (Participant 5). "I gained confidence in building good relationships with patients. I'm not yet competent enough while I am a student, but every semester, I feel

Table 3. Components of Caring Efficacy Among Nursing Students Obtained During the Field Work Stage.

Dimension	Attribute	Category	Theme in fieldwork
Personal	Qualifications and personality appropriate for caring	Internal and external attributes appropriate for caring	Strong desire for growth Outgoing and positive personality Physically and mentally healthy
		Respect and commitment to patients	Attentively listening to and prioritizing patients
	Growth through experience in caring	Gaining a sense of accomplishment and confidence through positive caring experience	Positive caring experience eliminates fear and increases confidence Positive feelings regarding satisfying patients' needs
		Becoming stronger through negative caring experience	Changes and growth in understanding and acceptance of patients' rudeness Resilience to patients' civility and strong internal attributes
	Caring-related capabilities	Professional caring knowledge	Professional caring knowledge is necessary
		Volunteer experience	Volunteer experience in caring is helpful
		Ability to react appropriately, critical thinking, and problem-solving skills	Obtaining abilities and tips to cope with situations in advance Ability to predict and manage patient needs in advance Problem-solving ability Ability to critically consider patients
		Confidence in interpersonal relationships	Gaining confidence in building rapport with patients Ability to form friendly relationships with patients
		Communication and empathy skills	Ability to communicate with strangers Confidence in communicating with patients Listening attentively to patients and showing empathy
			Patient-experience program Volunteer experience in caring is helpful
Environmental	Educational environment for learning caring	Environment for nursing education that improves caring	Theory classes related to the clinical field are needed Professors' experience in the clinical field is helpful
		Clinical practice that provides sufficient caring experience	Clinical practice environment associated with clinical fields Clinical practice environment with sufficient clinical experience is needed Diverse experience in clinical practice is crucial Opportunities for sufficient caring experience are needed
		Nurses as role models for caring	Preceptors' caring for patients provides a model Preceptors' receptive attitude to caring provides a model Preceptors' caring provides a model
		Social support	Nurses' positive attitudes and attention in clinical practice
	Positive experience of parental caring in a supportive relationship		Positive caring experiences, such as love and attention, help overcoming challenges Good relationships with parents are helpful in caring Parental attitude and caring toward others provide a model Parental attitude of allowing children autonomy influences caring

(continued)

Table 3. Continued.

Dimension	Attribute	Category	Theme in fieldwork
Theoretical	Person-centered caregiving relationship	Relationship with colleagues	Experience of being refused by one's parents decreases confidence Feeling hard about unfaithful peers during nursing practice Having positive-minded and congenial colleagues is helpful Active and faithful colleagues provide good role models during nursing practice Colleagues' help during nursing practice provides an example of caring for others
		Understanding patients without bias Prioritizing patient needs and acting supportive	Trying to see, listen to, and understand patients as they are Accepting patients' emotions without prejudice Respecting patient needs and acting supportive Prioritizing patient needs
	Four sources of self-efficacy	Psychological-emotional states	Internal and external attributes appropriate for caring
		Mastery experiences Vicarious experiences Social persuasion	Gaining a sense of accomplishment and confidence through positive and negative caring experiences Nurses modeling positive caregiving in the clinical field Nurses' positive attitudes and attention in clinical practice Positive experience of parental caring in a supportive relationship

that my capacity is increasing" (Participant 9). "I was not able to build rapport with patients when it was my first clinical practice. I did not know when was the best time to come up to the patients. However, repeated clinical practice experience made me know it better and reach out to them with courage" (Participant 4). "In the past, I did not know anything, but as time went by, I began to feel empathy for patients with long hospital stays and no visitors during COVID-19. I thought that warm words, listening, and showing emotional empathy would be important to them" (Participant 6).

Environmental Dimension

Participants believed that theory classes and clinical practice, interconnected with professors' field experience and clinical fields, could provide sufficient and diverse caring experiences. Nurses in the clinical field had the most noticeable influence on nursing students, with their caring behavior and attitude toward patients serving as models for caring.

"My professors often told us about the details of their clinical experiences at the hospital. I could remember better than what I read in a book" (Participant 7). "There are a lot of limitations to what students can do in clinical practice. The limitations are so wide that the only things a student can do are vital signs and blood sugar tests. Students gain confidence if they can experience a lot of clinical practices" (Participant 2). "If nurses in the field give us chances to experience more

without being annoyed, students will gain more confidence, and caring capacity will increase" (Participant 10). "When I saw nurses connecting lines and pushing carts, they looked great. I have been thinking a lot about it, and I can't wait to do that. I also want to experience practical duties" (Participant 8). "Nurses in the medical field influence us more than our professors. If nurse preceptors are good listeners with patients, we think that we should do that, too. However, if we see nurse preceptors respond to patients like, 'I am too busy to listen to you. So please talk to me later,' we think that it is acceptable" (Participant 9).

Nurses' positive attitudes and attention had a considerable impact on students' caring behavior and attitudes, while nurses' rude attitudes discouraged caring behavior. Positive parental caring experiences and healthy supportive relationships were positive influences. Relationships with colleagues exhibiting positive behaviors were encouraging, and diligent colleagues provided good models. However, participants experienced difficulties if their colleagues were not reliable.

"During clinical practice, some head nurses are too busy to give us an explanation, so we have to read their minds. They look busy, so we cannot ask questions. If they took a little more time to give me attention, I would be happy because I would experience more duties" (Participant 4). "Actually, no one pays attention to nursing students during clinical practice. I felt like I would be scolded if I asked questions. We were like outcasts. So, most students decided to do just what our professors asked us to do. If nurse teachers who

Table 4. Components of Caring Efficacy Among Nursing Students, Final Version.

Dimension	Attribute	Category
Personal	Qualifications and personality for caring	Internal and external attributes appropriate for caring Respect and commitment to patients Understanding patients without bias Prioritizing patient needs and acting supportive
	Growth through caring experience	Gaining a sense of accomplishment and confidence through positive caring experience Getting stronger through negative caring experience
	Caring capabilities	Professional caring knowledge and volunteer experience Ability to react appropriately Critical thinking and problem-solving ability Confidence in interpersonal relationships Communication and empathy skills
Environmental	Educational environment for learning caring	Environment for nursing education that improves caring Clinical practice that provides sufficient caring experience Nurses modeling positive caregiving in the clinical field
	Social support	Nurses' positive attitudes and attention in clinical practice Positive experience of parental caring in a supportive relationship Relationship with colleagues during nursing practice

lead clinical practice were more concerned with us and asked even one question, like, 'What would this patient need?' it would make me pay more attention to patients" (Participant 2). "In many cases, our parents showed us a lot of caring. Caring can start by thinking about what our parents did for us when we needed them or were sick. If your relationship with your parents is positive, and you receive appropriate love and care from them, your pride and self-efficacy will be higher. Don't you think it correlates with confidence in caring and conviction?" (Participant 1). "My parents always told me to help others. They didn't tell me directly about it, but when I saw them do volunteer work for others, I automatically followed them. I was influenced by my parents when they helped other people" (Participant 4). "When my parents took care of us, I learned caring from them. My mother nursed my grandmother in the hospital without coming home, and eventually, my grandmother completely recovered. I thought that she was great, so I remember my mom when I have a hard time during clinical practice" (Participant 6). "Once I had to do vital signs with a friend. She was a big help after finishing her part quickly, so I was greatly encouraged and became more kind to patients" (Participant 10). "When I participated in clinical practice with friends who were positive-minded, I could work with a smile and enjoyed it, so I felt less tired" (Participant 9).

Theoretical Dimension

Participants recognized that an attitude focused on patients was important, including trying to understand patients without bias and prioritizing their needs.

"I used to avoid male patients who talked without thinking, and it scared me a bit. One day, I thought that this

wouldn't be the best way to do it... After [a male patient] became comfortable with me, he opened his heart and brought me food. Through that experience, I learned that I should see patients without bias, listen to them, and understand them as they are" (Participant 7). "I was self-centered when I had no confidence and space in my mind. I did not think about what patients would need but was just busy finishing what was asked of me before leaving the ward. After that, I realized that I treated patients like objects, while they have needs and personalities as humans. I felt so sorry. Now, I first ask patients what they need while looking into their eyes" (Participant 2).

Final Stage

In the final stage of this study, the researchers constructed a definition of caring efficacy among nursing students based on a synthetic analysis of the results from the literature review and interviews. Most of the attributes identified in the theoretical stage had also been derived from the interviews. In the final stage, the contents of the theoretical dimension also appeared in the fieldwork stage, and the theoretical dimension was absorbed and integrated into the personal dimension and environmental dimension without separate distinction. Among the theoretical dimensions, the attributes "interpersonal caring relationship" and "self-efficacy" were integrated into the attribute "qualifications and personality for caring." "Growth through caring experience" and "educational environment for learning caring" were integrated into the attributes "social support." Among the four main factors of self-efficacy (Bandura, 1997), the "psychological and emotional states" factor appeared in "internal and external attributes appropriate for caring" in the personal

dimension. The “mastery experience” factor appeared in the personal dimension as “gaining a sense of accomplishment and confidence through positive caring experience” and “getting stronger through negative caring experience.” The “vicarious experience” factor appeared in “nurses modeling positive caregiving in the clinical field” in the environmental dimension. The “social persuasion” factor appeared in “social support”—that is, “nurses’ positive attitudes and attention in clinical practice” and “positive experience of parental caring in a supportive relationship” in the environmental dimension. After revisions and the addition of new categories, five attributes and 17 categories were derived in the personal and environmental dimensions (Table 4). The results of the comparative analysis are presented in Table 5. Thus, based on the attributes revealed in the theoretical and fieldwork stages, this study defined caring efficacy among nursing students as “self-confidence in caring capabilities,” which is dependent on the degree of “qualifications and personality for caring,” “growth through caring experience,” and “the educational environment for learning caring and social support.”

Discussion

This study developed a comprehensive definition of caring efficacy among nursing students. Most caring efficacy attributes identified through the literature review were also obtained through student interviews. Moreover, the interviews yielded additional attributes. Despite differences in personalities, universities, and clinical practice environments, participants gained similar levels of caring efficacy, earned through nursing education and clinical practice.

Bandura (1977, 1997) stated in social cognitive theory that self-efficacy is influenced by four major pieces of information: mastery experiences, vicarious experiences, social persuasion, and psychological and emotional states. These four major factors were used in the fieldwork stage of this study. All were confirmed at this stage, supporting Bandura’s theory. Coates (1997) developed an efficacy scale and defined caring efficacy as “self-confidence to express one’s caring orientation and own ability to develop a caring relationship with patients.” Her definition focuses on caregivers’ individual abilities, and the efficacy scale comprises a single factor. According to Reid et al. (2015), caring efficacy is self-confidence in expressing one’s concern and care and the ability to develop a professional relationship with clients. Northouse et al. (2010) defined caring efficacy as confidence in the ability to provide physical or psychological nursing to patients.

Previous studies revealed that factors influencing caring ability among nursing students and nurses in education and clinical practice comprise general features (Aström et al., 1995; Vandenhouten et al., 2012), environmental features (Beck, 2001; Simmons & Cavanaugh, 2000; Tanner, 1990), caring experience (Ma et al., 2013; Milliken, 2018; Wade & Kasper, 2006), and recognition of caring (Sadler,

2003). However, the complicated and dimensional aspects of caring were not fully reflected in the literature. Contrastingly, the definition developed in this study includes self-confidence in caring capability and innate individual features of “qualifications and personality for caring” and environmental features of “educational environment for learning caring and social support.”

This study identified the personal and environmental dimensions of caring efficacy, aligning with a previous study that identified individual and environmental dimensions (Choi, 2022a). Social and psychological health and individual capability derive from the individual level, while education and social support derive from the environmental level. A previous study on caring efficacy among primary caregivers of patients with progressive cancer identified resilience, self-maintenance, and sentimental connectivity as qualifications for caring; moreover, substantial caring was linked with caring capability (Ugalde et al., 2013). However, acquired caring capability and environmental factors were not included in this study.

The findings of this study regarding respect and commitment to the patient are similar to those presented by Sellman (2007), which include respect, commitment, and consideration as the virtues of nursing students’ caring personalities. Trying to understand patients without bias resonates with the 10 carative factors presented by Watson (1988). Caring can be achieved through interpersonal caring relationships using 10 carative factors (Watson, 1988) that instruct and direct behavior in caring practice. If this experience is motivational, it can enforce caring behavior and improve caring ability (Park, 2015).

The present study’s findings regarding growth through caring experience align with a previous study (Ma et al., 2013) that found that helping nursing students face reality and make critical judgments can contribute to improving their caring ability regardless of positive or negative experiences. These results also align with another study (Park, 2015) that found caring ability cannot be improved only via predetermined lectures or research procedures. Similar to scientific or technological abilities, teaching–learning methods to improve caring abilities must connect experiences with learning, rather than rely on one-sided lecture-based learning, as often emphasized in nursing education. As such, teaching must also include moral and empirical dimensions.

The attributes of caring capabilities align with a study that stated expert knowledge about caring should precede caring capability (Alavi et al., 2015; Shrestha et al., 2021). Developing confidence without knowledge is difficult, especially in the fieldwork stage. The ability to react properly in a situation, critical thinking, and problem-solving abilities were presented as the main nursing capabilities in several studies (Lee, 2022; Shrestha et al., 2021). However, the most frequently mentioned attributes in the literature and interviews were confidence in interpersonal relationships,

Table 5. Comparison of Caring Efficacy Among Nursing Students Between Stages.

Theoretical stage			Fieldwork stage			Final analysis stage		
Dimension	Attribute	Category	Dimension	Attribute	Category	Dimension	Attribute	Category
Personal	Social and psychological well-being and caring personality	Subjective perception of health status	Personal	Qualifications and personality appropriate for caring	Internal and external attributes appropriate for caring	Personal	Qualifications and personality for caring	Internal and external attributes appropriate for caring
		Subjective perception of experience of negative feelings			Respect and commitment to patients			Respect and commitment to the patients
		Clinical practice satisfaction and adaptation						Prioritizing patient needs and acting supportive
		Satisfaction with university's reputation and major		Growth through experience in caring	Gaining a sense of accomplishment and confidence through positive caring experience		Growth through experience in caring	Gaining a sense of accomplishment and confidence through positive caring experience
		Self-awareness of caring personality and care			Becoming stronger through negative caring experience			Becoming stronger through negative caring experience
		Caring experience		Caring-related capabilities	Professional caring knowledge		Caring-related capabilities	Professional caring knowledge and volunteer experience
		Professional knowledge of caring			Volunteer experience			Ability to react appropriately
		Ability to act in specific situations			Ability to react appropriately, critical thinking, and problem-solving skills			Critical thinking and problem-solving ability
		Clinical work competency						
		Interpersonal relationships and communication skills			Confidence in interpersonal relationships			Confidence in interpersonal relationships
	Emotional intelligence and empathy skills			Communication and empathy skills			Communication and empathy skills	

(continued)

Table 5. Continued.

Theoretical stage			Fieldwork stage			Final analysis stage		
Dimension	Attribute	Category	Dimension	Attribute	Category	Dimension	Attribute	Category
Environmental	Educational environment for learning caring	Educational environment and nursing education program that increases caring efficacy Educational environment for clinical practice that increases caring efficacy	Environmental	Educational environment for learning caring	Environment for nursing education that improves caring	Environmental	Educational environment for learning caring	Environment for nursing education that improves caring
	Social support	Preceptor's attitude and positive feedback Relationship of mutual trust and respect between professors and students Family support		Social support	Nurses' positive attitudes and attention in clinical practice Positive experience of parental caring in a supportive relationship Relationship with colleagues		Social support	Nurses' positive attitudes and attention in clinical practice Positive experience of parental caring in a supportive relationship Relationship with colleagues during nursing practice
Theoretical	Interpersonal caring relationship	Caring relationship Carative factors	Theoretical	Person-centered caregiving relationship	Understanding patients without bias Prioritizing patient needs and acting supportive Psychological—emotional states Mastery experiences Vicarious experiences Social persuasion			
	Self-efficacy	Four sources of self-efficacy		Four sources of self-efficacy				

communication, and empathy. Additionally, interpersonal capabilities, communication skills (Yeo, 2017), emotional intelligence, and empathy (Reid et al., 2015; Yeo, 2017) were the main caring capabilities presented in previous studies. Most participants reported great gains in confidence when they developed better communication capabilities. The ability to apply nursing knowledge and technology to clinical practice, the ability to perform nursing with critical thinking, and proficiency in therapeutic conversation and communication were included in learning outcomes and capabilities in the nursing curriculum presented by the Korean Accreditation Board of Nursing Education (2022), indicating that the subordinate categories derived in this study are attributes of caring capabilities.

The nursing education environment (Han, 2010; Je & Kim, 2020) can lead to enhanced caring similar to that of educated nurses working in clinical nursing fields (Alavi et al., 2015; Beck, 2001; Park, 2015; Sadler, 2003; Simmons & Cavanaugh, 2000; Tanner, 1990). Caring capability cannot be achieved through theoretical or lecture-based education methods alone. Therefore, clinical practice is necessary for gaining experience in caring and improving caring capability. Park (2015) posited that teaching and learning methods should be connected to learning and field experience should provide nursing students with sufficient opportunity for caring; however, participants reported limitations in real clinical practice. Therefore, this is a challenge that nursing education needs to address urgently.

Caring behavior and attitudes among supervisors also serve as examples for nursing students; likewise, professional nurses in the clinical field considerably influence nursing students as part of the human environment. These findings are similar to previous results (Hojat et al., 2009; Spencer, 2004), indicating that the absence of a role model in the practical environment decreases empathy and caring behavior.

Preceptors' attitudes and positive feedback in clinical field practice (Shrestha et al., 2021), mutual relationships of trust and respect between professors and students (Beck, 2001), and family support (Sadler, 2003) are relevant to caring. The present study's analysis yielded the importance of relationships with colleagues, aligning with Lee's (2022) findings that interpersonal relationships influence nursing students' caring efficacy. However, in the final stage of analysis, interpersonal relationships were integrated with the personal dimension, and this study demonstrated how Watson's (1988) 10 carative factors apply to clinical practice. The present study's results reconfirmed that education programs (Ryan, 2005; Sitzman, 2007) based on caring theory and curriculum (Lee-Hsieh et al., 2004) that focused on caring were effective in improving caring ability.

Strengths and Limitations

This study, representing the first concept analysis of caring efficacy focusing on nursing students, provides valuable

data for developing tools for caring efficacy. The findings offer a basis for a theoretical model, providing the framework for content categorization regarding caring efficacy. The results contribute to developing measurement tools and suggest a theoretical model that is appropriate for application in South Korea. However, participants were limited to students in the clinical field from certain nursing colleges; therefore, this study is not representative of the entire clinical field and cannot be generalized to all nursing students. Moreover, the latest databases from various sources were not examined during the literature review because of the limited nature of the target participants. Further research is needed, including an in-depth repetition study to identify caring efficacy in concrete situations focusing on nursing students and nurses in various sectors and to develop measurement tools for caring efficacy to be applied clinically.

Implications for Practice

The Korean Accreditation Board of Nursing Education periodically updates and standardizes essential competencies for nursing students (KABONE, 2022). If the subattributes of caring efficacy are identified through this study and a measurement tool for caring efficacy is developed, it can be used to evaluate and analyze nursing students' and nurses' relative caring competencies.

Conclusions

Upon analyzing the concept of caring efficacy among nursing students in college based on a mixed-method model, this study defined caring efficacy as "self-confidence in caring capabilities," rooted in their "growth through caring experience," and the conditions of their "educational environment for learning caring and social support" based on their "qualifications and personality for caring." The dimensions of caring efficacy in nursing students included five attributes and 17 categories in the personal and environmental dimensions: three attributes of qualifications and personality for caring, growth through caring experience, and self-confidence in caring capabilities in the personal dimension and two attributes of the educational environment for learning caring and social support in the environmental dimension. The current findings guide the development of robust nursing caring efficacy scales. Future studies should explore caring efficacy among professional and student nurses in various clinical fields.

Appendix I. List of Studies

A1. Kim, S. G., & Do, E. S. (2019). Effect of emotional intelligence caring efficacy and resilience on satisfaction on clinical practice in nursing students. *Journal of the Korea Academia-Industrial Cooperation Society*, 20(8), 231–239. <https://doi.org/10.5762/KAIS.2019.20.8.231>

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