ORIGINAL ARTICLE

INFLUENCING FACTORS OF CARING, CRITICAL THINKING, AND PROFESSIONAL VALUES OF NURSING STUDENTS IN EAST JAVA, INDONESIA

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ABSTRACT

Introduction: Caring becomes a core value in the nursing profession that reflects acts of responsibility and affective engagement with others. Nursing students must have highly specialized competencies, and a tendency to be able to accurately assess a patient's state and address potential problems. This study aimed to evaluate factors related to caring, critical thinking, and professional value of nursing students.
Methods: This study used an observational study conducted in East Java. The sample was 153 nursing students using convenience sampling techniques. The instrument was an online questionnaire to measure caring, critical thinking, and professional values of nursing students. The data analysis used descriptive statistics and chi-square test.
Results: There are several factors related to caring, namely age (0.031), marital status (0.019), semester (0.000), education level (0.005), working status (0.045), reason for entering nursing (0.001), and members of professional associations (0.011). In critical thinking variables, there are five factors, namely age (0.000), marital status (0.002), education level (0.009), working status (0.013), and the tendency to choose nursing (0.020). Meanwhile, two factors that are significantly related to professional scores include education level (0.035) and the tendency to choose nursing (0.026).
Conclusion: Caring, critical thinking, and professional values are mediators that are closely related to students' interest in the nursing profession. This requires support to improve students' abilities, especially in critical thinking and low professional scores by optimizing their individual factors.

Keyword: Caring, Critical Thinking, Nursing Students, Professional Values

INTRODUCTION

Nursing students as prospective nurses in the future are expected to provide good performance. Nursing students must have highly specialized competencies. A tendency to be able to accurately assess a patient's state and address potential problems. Need to improve the quality of care and satisfaction of the nursing process, caring behavior, critical thinking and professional values in clinical and community settings (Nehrir et al., 2016; Ariani and Aini, 2018; Kusnanto, 2019). Caring is a core value in the nursing profession that reflects human actions in doing things with others. Caring represents an attitude of work, responsibility, caring, and affective engagement with others (Watson, 2013; Sari, Parut and Kusnanto, 2017). In the discussion of philosophies and theories developed by Watson, Swanson, Leininger, and Boykin, caring is part of the essence of nursing and a key element in the nurse-patient interaction process that creates effective and high-

quality care (Alligood, 2017; Létourneau, Cara and Goudreau, 2017). Quality nursing care supports the quality of service in the health sector because it can affect patient satisfaction (Calong and Soriano, 2018; Suprajitno, Sari and Anggraeni, 2020). Nurses are health workers with the largest proportion in health services who have an important role that needs attention. Nurses have a professional responsibility to provide high-quality nursing care to ensure better patient outcomes. All nurses' actions and interventions are verified through caring behavior (Suliman et al., 2009; Oluma and Abadiga, 2020).

Several studies show that nurse care is still low (Harini and Kusmran, 2018; Kartini and Putri, 2019; Lukmanulhakim, Afriyani and Haryani, 2019; Ukum, 2021). According to previous research in Ethiopia, 48.3% of nurses had low caring behavior in the inpatient department of public hospitals (Kibret et al., 2022). Another study conducted in Indonesia also showed 45% of nurses have poor caring behavior (Kartini and Putri, 2019). The caring behavior of nurses in the inpatient room was only 52.1%, with an assessment of meeting basic human needs 73.2%, client beliefs and expectations 47.9%, and sensitivity to themselves and others 50% (Noprianty and Karana, 2019). Lack of concern is expressed by patients with nurses who are unfriendly, angry, unresponsive to patient complaints, and poor communication when providing services in health services. At the same time, patients in sick conditions need more attention to get services and it is expected that nurses can willingly listen to their complaints, and feelings, and meet their health needs (Kartini and Putri, 2019). This situation is exacerbated by the emergence of Coronavirus Disease 2019 (COVID-19), nurses have greater challenges in caring for patients such as fatigue, discomfort, anxiety, fear of infection, and stress (Wahyuningsih et al., 2020). This condition can affect patient satisfaction, quality of service, and the healing process (Kol et al., 2018).

Aspects that also play an important role are the ability to think critically and professional values. Critical thinking is closely related to nursing competence and caring behavior. The curriculum and competencies of nursing students emphasize critical thinking skills (Nehrir et al., 2016; Wenger, Reist, Achenbach, Dukes, Fravel, Knockel, Kuehnle, Reist, Suneja and Pendleton, 2023). Implementation of caring behavior, involves the nurse's response in meeting needs that require good critical thinking skills. Previous research has shown that caring and critical thinking have a significant relationship in the competence of nursing students (Nadelson et al., 2016; Arli et al., 2017; Nadelson and Nadelson, 2019). Caring and critical thinking and shaped and modified so that it is important to identify it early. While the professional value of nursing becomes the basis for nurses in the application of ethics, values, and humanistic care (Kaya et al., 2017). Nursing professionals can be judged by several indicators consisting of: caring, activism, trust, professionalism, and justice (Weis and Schank, 2009; Prananingrum, 2015; Jiwanti, Purnamawati and Widiastuti, 2022). In every educational level can offer the unique experiences that contribute to fostering caring behavior among nurses in both clinical and educational settings (Kyle, Beattie and Smith, 2020; Putri et al., 2023). Identifying professional values in nursing students is important in preparing students for their future professional careers (Rabia S Allari, Abu-El-Noor and Abu-El-Noor, 2022). Considering the above problems, the researcher aimed to evaluate the factors related to caring, critical thinking, and the professional value of nursing students in East Java.

METHODS

Study Design

The research was conducted by an observational study using a cross-sectional, conducted in East Java. The purpose of study obtain reliable data that allow to generate conclusions, and create new hypotheses that can be investigated with new research (Zangirolami-Raimundo, Echeimberg and Leone, 2018).

Population, Samples, and Sampling

The population was nursing students in East Java who met the inclusion and exclusion criteria. The inclusion criteria in this study are nursing students at all levels of education (diploma, bachelor, ners profession, master, doctoral degree) and are registered as Indonesian citizens, have internet access, are ≥ 18 years old, and are able to understand Indonesian. While the exclusion criteria are students who are not willing to be research respondents. The sampling technique used is convenience sampling. The research sample obtained in this study was 153 nursing students.

Instruments and Procedure

The research instrument used is a semi-structured online questionnaire developed using google forms. On the google form, a respondent consent form is added as one of the ethical requirements in conducting research.

Questionnaire links were sent via whatsapp (WA) and other social media to research respondents. To minimize bias, the researcher defines a research target and ensures that the online survey is as accessible as possible. The study participants were asked for help to provide questionnaire links to various existing social media so that more respondents joined the study. When accepting and clicking on the link, participants are automatically directed to information about learning and give consent. Once they accept to take the survey, they fill in the demographic details. Then a series of questions appear sequentially, which must be answered by participants. This is called online study. Sociodemographic variables used include age, gender, marital status, semseter, education level, academic GPA, employment, reason for entering nursing, work plan after graduation, tendency to choose nursing, and members of professional associations. The questionnaire used used the Caring questionnaire (Wijaya, 2014), Critical Thinking Disposition Self-Rating Form (Maizar and Agus, 2017), and Nurse Professional Values Scale-Revised (NPVS-R) (Prananingrum, 2015).

Data Analysis

The data analysis used is descriptive statistics and chi-square. All analyses were performed using SPSS 25. A p value of ≤ 0.05 is considered statistically to have a significant result.

Ethical Clearance

This research has received ethical approval from the Health Research Ethics Commission (KEPK) Universitas dr. Soebandi with No.416/KEPK/UDS/VIII/2023. Before collecting data, we requested that respondents complete an informed consent form at the start of the survey. This form included details about our research, such as the study's purpose, objectives, participant information, anonymity, and their right to participate voluntarily. We emphasized that participation was entirely voluntary and that they could withdraw at any time.

RESULTS

Table 1. Demographic Data of Nursing Students in East Java (n=153)

Variable	n	%
Age		
18-20 Years	18	11,8
21-23 Years	88	57,5
≥ 24 Years	47	30,7
Gender		
Male	57	37,3
Female	96	62,7
Marital status		
Unmarried	120	78,4
Married	33	21,6
Semester		
Two	63	41,2
Four	32	20,9
Six	40	26,1
Eight	18	11,8
Level of Education		
Diploma	40	26,1
Bachelor	69	45,1
Ners	33	21,6
Magister	8	5,2
Doctoral	3	2,0
Grade Point Average (GPA) Academic		
2,00 - 2.75 (Satisfactory)	6	3,9
2.76 - 3.50 (Very satisfactory)	48	31,4
3.51 - 4.00 (with Cumlaude Praise)	99	64,7
Working Status		
Yes	41	26,8

No	112	73,2
Reason for entering nursing school		
Love the nursing profession	71	46,4
Low scores at the university entrance exam	4	2,6
Families' desire	40	26,1
Guarantee of finding a job	38	24,8
Working field aftter graduation		
Clinician nurse	125	81,7
Academic nurse	28	18,3
Tendency to choose nursing		
Yes	141	92,2
No	12	7,8
Members of professional associations		
Yes	46	30,1
No	107	69,9
Caring		
Poor	49	32,0
Good	104	68,0
Critical Thinking		
Poor	92	60,1
Good	61	39,9
Professional Value		
Low	85	55,6
High	68	44,4
Total	153	100,0

Table 1 explains that the majority of nursing students in this study were aged 21-23 years (57.5%), female (62.7%), unmarried (78.4%), second semester (41.2%), bachelor degree (45.1%), GPA 3.51 - 4.00 (64.7%), and unemployed (73.2%). In addition, the majority of respondents entered nursing because they love the nursing profession (46.4%), plan after graduating to become a clinical nurse (81.7%), have a tendency to choose nursing (92.2%), and more than half did not join professional associations (69.9%).

The bivariate analysis in table 2 shows that there are several factors related to caring, namely age (0.031), marital status (0.019), semester (0.000), education level (0.005), working status (0.045), reason for entering nursing (0.001), and members of professional associations (0.011). In critical thinking variables, there are five factors, namely age (0.000), marital status (0.002), education level (0.009), working status (0.013), and the tendency to choose nursing (0.020). Meanwhile, two factors that are significantly related to professional scores include education level (0.035) and the tendency to choose nursing (0.026).

Table 2. Chi-square test

Variable	Caring				X^2	Critical Thinking				X^2	Professional Value				X^2
	Poor		Good			Poor		Good			Low		High		
	n	%	n	%		n	%	n	%		n	%	n	%	
Age															
18-20 Years	23	11,1	163	88,9	0,031*	96	50,0	92	50,0	0,000*	74	38,9	113	61,1	0,254
21-23 Years	51	39,8	35	60,2		81	77,3	03	22,7		92	55,7	18	44,3	
≥ 24 Years	12	25,5		74,5		15	31,9	32	68,1		29	61,7		38,3	
Gender															
Male	21	36,8	36	63,2	0,325	30	52,6	27	47,4	0,144	33	57,9	24	42,1	0,654
Female	28	29,2	68	70,8		62	64,6	34	35,4		52	54,2	44	45,8	
Marital status	44	36,7	76	63,3	0,019*	80	66,7	40	33,3	0,002*	63	52,5	57	47,5	0,147
Unmarried	45	15,2	28	84,8		12	36,3	21	63,4		22	66,7	11	33,3	
Married															
Semester															
Two	18	28,6	45	71,4	0,000*	40	63,5	23	36,5	0,291	41	65,1	22	34,9	0,148
Four	86	18,8	26	81,2		15	46,9	17	53,1		13	40,6	19	59,4	
Six	11	27,5	29	72,5		24	60,0	16	40,0		21	52,5	19	47,5	
Eight	14	77,8	4	22,2		13	72,2	5	27,8		10	55,6	8	44,4	
Level of Education															
5	28	12,5	35	87,5	0,005*	19	47,5	21	52,5	0,009*	24	60,0	16	40,0	0,035*
Diploma	81	40,6	41	59,4		42	60,9	27	39,1		32	46,4	37	53,6	
Bachelor	15	45,5	18	54,5		22	78,8	7	21,2		23	69,7	10	30,3	
Ners	10	12,5	7	87,5		23	25,0	6	75,0		60	75,0	23	25,0	
Magister		0,0	3	100			100	0	0,0			0,0		100	
Doctoral															
Grade Point Average (GPA)															
Academic	11	16,7	5	83,3	0,708	33	50,0	31	50,0	0,322	62	100	02	0,0	0,061
2,00 - 2.75 (Satisfactory)	63	33,3	32	66,7		35	68,8	54	31,2		85	58,3	04	41,7	
2.76 - 3.50 (Very satisfactory)	32	32,3	67	67,7		56	56,6	43	43,4		51	51,5	48	48,5	
3.51 - 4.00 (with															

Cumlaude Praise)														
Working Status Yes No	84 41	19,5 36,6	3371	80,5 63,4	0,045*	187 74	43,9 66,1	233 38	56,1 33,9	0,013*	236 62	56,1 55,4	185 50	43,9 44,6	0,935
Reason for entering nursing school Love the nursing profession Low scores at the university entrance exam Families' desire Guarantee of finding a job	151 231 0	21,1 25,0 57,5 26,3	563 1728	78,9 75,0 42,5 73,7	0,001*	412 272 2	57,7 50,0 67,5 57,9	302 131 6	42,3 50,0 32,5 42,1	0,723	353 281 9	49,3 75,0 70,0 50,0	361 121 9	50,7 25,0 30,0 50,0	0,133
Working field aftter graduation Clinician nurse Academic nurse	418	32,8 28,6	8420	67,2 71,4	0,665	712 1	56,8 75,0	547	43,2 25,0	0,075	652 0	52,0 71,4	608	48,0 28,6	0,061
Tendency to choose nursing Yes No	454	31,9 33,3	968	68,1 66,7	0,919	811 11	57,4 91,7	601	42,6 8,3	0,020*	823	58,2 25,0	599	41,8 75,0	0,026*
Members of professional associations Yes No	841	17,4 38,3	3866	82,6 61,7	0,011*	266 66	56,6 61,7	204 1	43,5 38,3	0,550	226 63	47,8 58,9	244 4	52,2 41,4	0,207
Total	49	32,0	104	68,0		92	60,1	61	39,9		85	55,6	68	44,4	

*p <0.05

DISCUSSION

This study identified that the age of respondents was mostly in the range of 21-23 years or in the adolescent development stage. A person during adolescence / early adulthood will pay more attention to work or social activities in his environment. During this period, the individual tries to prove his social status and grow his maturity (Potter and Perry, 2015; Ting et al., 2022). This has implications for the increasing age of the individual, the individual will motivate himself to be more mature physically and mentally and his social activities. This maturity that can grow with age will make a person have a better understanding of their emotions and the emotions of others. In addition, mature people have the ability to control their emotions, which allows them to respond calmly

and understandingly to situations that create caring within them (Akansel et al., 2021). This is in line with previous study explained that more mature nurses have higher caring behavior because they have a higher sense of responsibility (Karadag Arli et al., 2017; Surbakti, Novieastari and Nuraini, 2019).

In addition, age is related to critical thinking skills. Maturity that grows with age also helps a person develop better critical thinking skills. A person's maturity will make the person have the ability to assess the situation, understand the complexity of the situation, the ability to assess information and process it with various perspectives (Matulessy et al., 2021; Lyu, Ramoo and Wang, 2022). These various aspects will make adults tend to have richer and more diverse life experiences so that they become more critical of the information they receive. They are able to assess the reliability of information sources, question claims, and look for evidence that supports arguments (Facione, 2015; Karadag Arli et al., 2017).

Other factors related to caring and critical thinking are semesters and levels of education. Semesters and levels of education are interrelated which indicates the length of one's education. Velasquez et al., (2013) stated that the knowledge that a person gains in education is an experience that serves to develop one's abilities and personal qualities. The higher one's education, the greater the desire to utilize knowledge and skills. Education affects the mindset of individuals, while the mindset affects one's behavior, in other words the mindset of someone who is poorly educated will be different from the mindset of someone who is highly educated A higher level of education will make a person more capable and willing to accept a responsible position (Notoatmodjo, 2003; Mariyanti, Kurniawati and Nursalam, 2015). Nursing education has a major influence on the quality of nursing services (Kyle, Beattie and Smith, 2020). The higher a person's level of education, the more knowledge they have, the more competence they have. Nurses with higher education levels will feel confident and begin to show that the improvement of their education is equivalent to their abilities, this motivates nurses to be able to further improve the quality of nursing care services, especially patient personal hygiene.

In addition, the level of education is also related to crittical thinking and professional values. The level of education and knowledge plays a very important role in the development of critical thinking skills and professional values of a person. Formal education provides an important foundation of knowledge. The higher the level of education of a person, the wider and deeper his knowledge in a particular field. A good education encourages the development of critical thinking skills. Students are taught to assess information, understand complex concepts, and develop good arguments. It deepens analytical thinking skills and considers various points of view before making decisions. In-depth knowledge of the field of work forms an essential skill set in a professional environment. A person who has strong knowledge in his field can make better decisions, solve problems more efficiently, and make a significant contribution to his work environment (Karadag Arli et al., 2017; Poorchangizi et al., 2019; Rabia S. Allari, Abu-El-Noor and Abu-El-Noor, 2022; Wenger, Reist, Achenbach, Dukes, Fravel, Knockel, Kuehnle, Reist, Suneja, Pendleton, et al., 2023).

The results showed that most of the respondents were not married. Dowling (2004) Explains that marriage increases responsibilities that can make work worthwhile. However, the results of this study show something different. According to previous research, nurses who are married and unmarried have the same caring behavior (Dowling, 2004; Akansel et al., 2021). A marriage leads to increased responsibilities and permanent work becomes more valuable and important, so married nurses have higher responsibilities than unmarried nurses. An unmarried person's life will be more social with the opportunity to develop personal responsibility, independence, and have room for personal growth. People who live alone or are not married often have greater independence. They assume their own personal responsibilities without relying on a life partner. It teaches them responsibility, independence, and self-care, which can strengthen their capacity to care for others.

The reason for entering nursing will foster students' interest and motivation in carrying out their duties as a nurse. Student motivation will affect student caring behavior in carrying out nursing care. This shows that the higher the motivation students have, the higher the student's caring behavior. Mariyanti, Kurniawati dan Nursalam (2015), states that a person performs a task because of a need to make an achievement. Individuals with high achievement needs are characterized by a high desire to complete tasks and improve the performance of the individual, like

something challenging, which later the performance of the individual will be measured and compared with the performance of other individuals. This proves that students who carry out professional practice with high motivation will have the desire to carry out their duties as students well. Students with high motivation will have a strong desire to improve performance and grow value in the performance performed.

The results of this study also identified that respondents' participation in professional organizations is related to caring. Organizational experience can have a significant influence on organizational members' caring behavior toward co-workers, customers, and the general public. Organizations with a culture that supports cooperation, empathy, and caring create an environment where caring behavior is valued and encouraged. Organizations that encourage participation in social and charitable activities provide opportunities to members of the organization to feel a sense of satisfaction and care through their contributions to society. In addition, a supportive and cooperative environment, where colleagues support and understand each other, creates conditions conducive to the growth of caring behavior (Karami, Farokhzadian and Foroughameri, 2017; Tong et al., 2023).

CONCLUSIONS

The results of the research analysis found that age factors are related to caring and critical thinking, marital status is related to caring and critical thinking, semester is related to caring, education level is related to caring, critical thinking and professional grades, work status is related to caring and critical thinking, reasons for entering nursing are related to caring, the tendency to choose nursing is related to critical thinking and grades Professionals, as well as members of professional associations associated with caring respondents. Educational institutions need to develop innovative programs to develop caring, critical thinking, and professional values in students so that students can learn about caring, critical thinking, and professional values more optimally.

DECLARATION OF CONFLICTING INTEREST

No conflict of interest is declared by authors.

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AUTHORS' CONTRIBUTIONS

IAS: conceptualization, supervision, validation, formal analysis & writing–review; RAP: methodology, data curation, & writing-editing.

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