The influence of caring-based character learning interventions on the practical competencies among nursing students

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Article Info

ABSTRACT

This study aimed to assess the impact of an educational intervention centered on fostering a caring-based character on the practical nursing competency related to ethics, law, and cultural sensitivity. The research employed a quasi-experimental approach with a pre-post design, incorporating a control group. Purposive sampling was used to select 33 respondents for both the intervention and control groups (n=66). The competency measurement instrument was validated and deemed reliable. The intervention, carried out over 12 weeks, utilized a module. Data analysis involved the Wilcoxon match pairs test and Mann-Whitney U-test. The intervention group exhibited a significant improvement in practical nursing competency concerning ethics, law, and cultural sensitivity before and after the caring-based character learning intervention (p<0.001), whereas the control group showed no notable difference (p=0.065). Significant competency differences were observed between the intervention and control groups (p=0.023). The implementation of a caring-based character learning module has the potential to enhance nursing students' competency, particularly in practical aspects related to ethics, law, and cultural sensitivity. It is suggested that nursing education incorporates character learning modules into the curriculum, training programs, or extracurricular activities.

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1. INTRODUCTION

Nursing competencies encompass a combination of knowledge, attitudes, and skills, comprising both soft and hard skills. Practical nursing competency, specifically focused on ethics, law, and cultural sensitivity, is identified as one of the five competency areas outlined in the domains of the ASEAN Nursing Common Core Competencies established by the Indonesian Ministry of Health [1]. Additional competencies encompass professional nursing practice, leadership and management, education and research, as well as the development of personal and professional qualities. Attaining nursing competency involves students meeting specified learning outcomes through classroom, laboratory, and clinical learning experiences. In clinical settings, students actively deliver nursing care to patients or clients, albeit occasionally encountering errors in interactions and procedures [1].

Prospective nurses, as students, continue to face challenges in attaining their nursing competencies, specifically in critical thinking, time management, communication, and collaboration [2]–[5], interpersonal relationships, and communication [6], a decline in self-confidence, elevated stress levels, fear [7], inadequate respect, deficient nursing ethics [8], a lack of skills in meeting the psychosocial and emotional needs of patients. Multiple studies have highlighted the occurrence of errors made by students during clinical practice. Rubisch *et al.* [9] found that students frequently made reproduction mistakes, with varying levels of elaboration and correction time. Swinfen *et al.* [10] emphasized the need for more training in error disclosure, as many medical students reported infrequent teaching in this area. Rankin's study revealed that students were better at self-judgment than self-monitoring and self-reactions, reacting differently based on who committed the error [11].

Students identify obstacles in implementing nursing care, attributing them to a lack of sufficient knowledge about the code of ethics and the absence of role models who teach the code of ethics in nursing practice [12]. The research outcomes indicate that nurses possessing a positive and caring attitude inherently apply ethical principles when delivering nursing care to patients [13]. Students commonly make errors, with the most frequent ones being related to communication, medication, and procedural aspects [14]. The research findings indicate that students commit medical errors primarily because of insufficient knowledge about procedures and inadequate supervision during clinical practice [15]. Another report highlights a substantial prevalence of medical errors among nursing students, with approximately half of them making such errors during their educational program [16]. The emotional consequences for students who make mistakes include experiencing disorders such as fear and anxiety [17].

Additional research reveals challenges in implementing nursing care, particularly related to cultural differences, with language variances being a prominent issue. Inadequate availability of language translators and insufficient education and training contribute to these obstacles [18]. Approximately one-third of nurses self-identify as culturally incompetent, while nearly half consider themselves culturally competent in providing nursing care. The level of cultural diversity training experience and self-perceived cultural competence significantly influence nurses' overall cultural competence [19]. Summarily, the issues among students encompass deficiencies in attitudes/soft skills, interpersonal relationships, professional values, limited knowledge about ethics, occurrences of medical errors, cultural barriers in executing nursing care, and an underdeveloped capacity for caring behavior, specifically in expressive or emotional caring.

The challenges experienced by students can impede the attainment of competencies during the learning process. Hence, adequate preparation is crucial to ensure students are well-equipped for clinical learning. Caring behavior plays a significant role in influencing the achievement of student competencies [20]. Additionally, various factors impact the realization of nursing competencies, including practical experience, the learning environment, individual characteristics, the learning process, and caring behavior. Affective readiness in students is vital to optimizing their knowledge and skills. Educational institutions must design learning environments that support the enhancement of student competence [21]. To enhance readiness for practice in nursing education, there is a need to focus on improving attitudes and soft skills. Implementing character learning, which enhances affective skills, proves effective when complemented by prior cognitive and psychomotor learning experiences [22]. Incorporating character learning is crucial in student education as it significantly influences their affective behavior.

Mastering essential characteristics is crucial for nurses as competency necessitates strong interpersonal interaction skills with patients [23]. It is imperative to continue the nursing character education program during clinical learning [24]. This form of education shapes the personality required for providing care to patients [25] and contributes to fostering trust and confidence in the nursing profession within society [26]. In higher education, character education holds a strategic role in cultivating emotions and habits through the integration of caring behavior into daily life and the learning process [27]–[29]. The effectiveness of character education lies in the development of a well-structured character learning model that effectively conveys ideas and information throughout the learning process.

Character learning for nursing students involves acquiring knowledge of values and character (moral knowing), recognizing the significance of values and character (moral feeling), and aligning behavior with good values and character (moral behavior) [30]. It is crucial for character learning to be centered around caring, as it is essential for direct practice and patient interaction, holding significant meaning for patients and their families [31], [32]. Caring serves as the foundation for comprehensive nursing professional development, encompassing both instrumental aspects (related skills) and emotional aspects of caring (connected to emotions or professional values). Integrating character learning with caring in nursing practice has the potential to enhance the affective dimension and strengthen cognitive and psychomotor aspects. The development of a caring-based character learning model is rooted in the caring quality model for education, focusing on affective learning and character formation [33]–[35]. Therefore, this study aimed to identify the effect of a caring-based character learning intervention on practical nursing competency based on ethics, law, and cultural sensitivity.

2. METHOD

2.1. Study design

The research adopted a quasi-experimental design that involved measuring outcomes both before and after the intervention. This approach allowed for the comparison of changes over time within the study group. Additionally, a control group was included to provide a baseline for assessing the impact of the intervention by contrasting it with a group that did not receive the treatment.

2.2. Setting and sample

This research was conducted within a nursing professional study program in the city of Bandung, spanning from April to June 2023. The sample size for the study was determined using a 2-proportion difference test calculation, resulting in 33 respondents for both the intervention group and the control group [36]. Purposive sampling was employed as the sampling technique, with samples selected from a specific study program based on predetermined criteria. The chosen study program holds accreditation of B and very good and has expressed its willingness to conduct training programs aligned with the created modules. Inclusion criteria for this study encompassed students in the clinical stage of the nursing profession, enrolled in a nursing profession study program with B and very good accreditation, and possessing permission from the study program to partake in the training. Exclusion criteria included students who were unwell and unable to complete one clinical stage. Dropout criteria were defined as students who failed to attend training on more than two occasions or did not adhere to procedures in an orderly manner.

2.3. Variable and measures

In this study, the independent variable is the caring-based character learning module, while the dependent variable is practical nursing competency, specifically focusing on ethics, law, and cultural sensitivity. The instrument utilized for measuring competence is a modified version of the ethical and legal principles practice questionnaire, along with an adapted form of the transcultural self-efficacy scale questionnaire [37]. It is important to note that the instrument's validity and reliability have been established, with a correlation coefficient (r) ranging from 0.675 to 0.853, surpassing the critical correlation threshold (r table) of 0.361, and a Cronbach's alpha value of 0.950, exceeding the acceptable threshold of 0.700.

2.4. Intervention

The researcher conducted the intervention by implementing a module that covered various topics. The module comprised four parts:
- Part 1 focused on motivation and learning attitudes.
- Part 2 addressed character development, caring behavior, and key characteristics of nurses, including sincere work character, empathetic character, critical thinking character, responsible character, and tough character.
- Section 3 delved into nursing competency areas.
- Section 4 covered aspects related to the curriculum, libraries, laboratories, and educational facilities.

The intervention involved diverse learning methods such as lectures, discussions, brainstorming, storytelling, simulations, self-reflection, contextual learning, problem-based learning, collaborative learning, game-based learning, and experiential learning. The intervention spanned a duration of 12 weeks, with each session lasting 100 minutes. Ten meetings were conducted on campus, while an additional two weeks were dedicated to sessions at the students' practice sites.

2.5. Data collection

The researchers collected data after securing ethical approval and research permission from the relevant institution. Ethical approval for this research was granted by the Research Ethics Commission of the Faculty of Nursing, Airlangga University, with reference number 2697-KEPK, dated November 21, 2022. The researcher collaborated with the head of the study program to coordinate the sample selection and determine the schedule and location in accordance with the agreed-upon terms. The questionnaire was prepared online and administered to respondents before and after the intervention for both the intervention and control groups. Respondents who completed the questionnaire confirmed their participation with the researcher.

2.6. Data analysis

The data analysis for this research employed descriptive statistics, including averages, frequency distributions, and percentages. In addition to descriptive analysis, inferential analysis was conducted. The nonparametric Wilcoxon match pairs test was utilized to examine the differences between pre-test and post-test scores within both the intervention and control groups. To test the post-test differences between the two groups (intervention and control), the nonparametric Mann-Whitney U-test was employed. The acceptance of the hypothesis was contingent on a significance value of <0.05.

3. RESULTS AND DISCUSSION

Table 1 indicates that both the intervention and control groups have a relatively similar average age, with a majority being female. Moving to Table 2, it elucidates that the intervention group, concerning practical nursing competency based on ethics, law, and cultural sensitivity, exhibited a high category of 72.7% before receiving the caring-based character learning intervention. After the intervention, there was a notable increase to 90.9%. Conversely, the control group showed a decrease in the high category from 87.9% to 84.8%.

Table 3 further expounds that the intervention group demonstrated a significant difference in practical nursing competency based on ethics, law, and cultural sensitivity before and after the caring-based character learning intervention, with a p-value of 0.000 (p<0.05). In contrast, the control group showed no significant difference (p-value=0.065; p>0.05). There were overall differences in practical nursing competency between the intervention and control groups (p=0.023; p<0.05).

Moreover, when considering competency sub-variables, the intervention group displayed a significant difference in ethical nursing competency (p=0.001; p<0.05), rule-based nursing competence (p=0.000; p<0.05), and culturally sensitive nursing competency (p=0.000; p<0.05) before and after the caring-based character learning intervention. Conversely, the control group did not show a significant difference for any of the sub-variables. In summary, there were differences in all competency sub-variables between the intervention and control groups.

Table 1. Demographic characteristics of phase 3 research respondents (n=66)

No	Characteristics	Intervention (n=33)		Control (n=33)	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1	Age mean	22.7		22.5	
2	Gender				
	Man	4	12.1	7	21.2
	Woman	29	87.9	26	78.8

Table 2. Description of nursing competency categories for the intervention and control groups before and after the caring-based character learning intervention

Variable/sub-variable	Group	Pre-test			Post-test		
		Category	Frequency (f)	Percentage (%)	Category	Frequency (f)	Percentage (%)
Practices are ethical, legal, and culturally sensitive	Intervention	Low	0	0	Low	0	0
		Moderate	9	27.3	Moderate	3	9.1
		High	24	72.7	High	30	90.9
	Control	Low	0	0	Low	0	0
		Moderate	4	12.1	Moderate	5	15.2
		High	29	87.9	High	28	84.8

Table 3. Results of different variable tests before and after the caring-based character learning intervention for the intervention and control groups

Variable/sub-variable	Group	Mann-Whitney test						Wilcoxon test	
		Pre-test			Post-test				
		Mean	SD	Sig	Mean	SD	Sig	Z	Sig
Practices are ethical, legal, and culturally sensitive	Intervention	60.58	8,295	0.104	64.45	6,285	0.023	-4,950	0.000
	Control	64.18	6,202		60.85	5,209		-1,843	0.065
Ethics	Intervention	13.64	1,901	0.937	14.00	1,620	0.006	-3,464	0.001
	Control	13.55	1,905		12.94	1,116		-1,704	0.088
Rules-based	Intervention	23,24	3,606	0.628	24.24	2,681	0.004	-3,787	0.000
	Control	23.79	2,781		22.48	2,033		-1,722	0.085
Culturally sensitive	Intervention	23.7	3,980	0.001	26.36	3,019	0.188	-4,891	0.000
	Control	26.85	3,447		25.30	3,264		-1,651	0.099

3.1. Discussion

3.1.1. Caring-based character learning module

Character learning is essentially character development, serving as the cornerstone in shaping students' positive character traits and laying the groundwork for a resilient personality. It is a gradual process that necessitates time for internalization, as it involves the transmission of values and the cultivation of positive habits to shape an individual's character, ultimately contributing to the formation of a distinct personal identity. Learning or character education is a time-consuming process, and its impact and effectiveness become evident over time. Through character learning, students not only acquire knowledge

about the main characteristics of nurses but also develop a sense of these qualities and, ultimately, cultivate the determination to embody positive habits in their daily practice [38]. Character learning aims to establish a systematic approach for imparting character values to students, encompassing components such as knowledge, awareness, will, and action to implement these values. These values extend towards one's relationship with God Almighty, self, as well as respect and courtesy towards others. Educators and lecturers need to exhibit patience, heightened awareness, and a deeper understanding, recognizing that character education is a gradual process that requires time for the internalization of positive values into one's personality traits. To facilitate the implementation of character education, a more operational guide, in the form of modules, proves essential. These modules serve as structured tools to guide and support the incorporation of character values into the educational process.

Training modules serve as comprehensive guides for conducting training or learning activities. Within these modules, there is an inclusion of class-based character education, school culture-based character education, and community-based character education. This multi-faceted approach ensures that character education is integrated into various aspects of the learning environment, encompassing the classroom, the broader school culture, and connections with the community. The modules provide a structured framework to implement character education effectively across different settings and levels within the educational system [39]. Training or learning modules play a crucial role in enhancing lecturer competence, particularly in terms of professional competence. When it comes to fostering student character development, lecturers are tasked with creating modules that serve as valuable tools to facilitate learning, guide the implementation of educational activities, and assist students in comprehending the material effectively. These modules contribute to the overall effectiveness of the educational process by providing a structured and organized approach to teaching, ultimately supporting both the lecturer's competence and the students' understanding and internalization of the subject matter [40]. Character education modules play a pivotal role in enhancing the effectiveness of learning outcomes across affective, cognitive, and psychomotor aspects. These modules contribute to improvements in the affective domain, reflecting positive character attitudes observable in students' actions and attitudes during the learning process. Additionally, the cognitive aspect is positively influenced, evidenced by students' responses to lecturers' questions and their inquisitive attitude towards the discussed material. The psychomotor aspect, which evaluates students' practical practices and skills, is also positively impacted by the implementation of character education modules. In essence, these modules contribute to a more holistic and comprehensive development of students across various dimensions of learning [41].

Additional research demonstrates that the caring model (TCM) module has the capacity to enhance caring behavior among nurses, increase service satisfaction, and positively impact both the affective and technical aspects of nursing care interventions [38]. Moreover, there is further confirmation from other studies that learning through a module is an effective means to improve caring behavior. The module serves as a valuable guide, directing students in their studies and evaluations, thereby contributing to the enhancement of their skills and attitudes in the field of nursing [42]. An additional perspective highlights that the human caring module has both personal and professional impacts on students who engage with it. In the knowledge stage, students concentrate on understanding "what to do" and "how to do" caring in practical situations. Following the completion of the module, students reported adopting a more holistic approach to service delivery. They actively sought to understand patients on a deeper level to better meet their needs and demonstrated improvements in their overall caring practices. This suggests that the human caring module contributes to a transformative learning experience, influencing students' approaches to patient care in a more comprehensive and empathetic manner [43]. Several studies highlight the effectiveness of using modules in the learning process, emphasizing that they contribute to making character education more effective for both lecturers and students. The utilization of modules facilitates the achievement of affective, cognitive, and psychomotor aspects, ensuring a comprehensive and well-rounded character learning experience. This underscores the importance of structured and organized learning materials, such as modules, in enhancing the overall effectiveness of character education within the educational setting.

3.1.2. Practical competency based on ethics

Engaging in character education has the potential to enhance proficiency in ethical principles. According to Andersson [44], ethical competence encompasses the capacity to recognize ethical dilemmas, possess knowledge regarding the ethical and moral dimensions of service, engage in reflective practices concerning one's knowledge and actions, and demonstrate the ability to make informed and prudent choices while effectively managing ethically challenging work scenarios. This ethical competency is crucial for respecting patient rights and elevating the overall quality of services. Ethical competence stands as a foundational capability for nurses in delivering health services, enabling them to identify ethical considerations in decision-making and arrive at optimal solutions for patients [45].

Yoshioka and Kaneko [46] emphasized that enhancing proficiency in ethical competencies is essential, as it directly contributes to the enhancement of nursing practice quality, the cultivation of ethical standards, and the augmentation of autonomy within the nursing profession. Ethical competency serves to safeguard patient vulnerability, instill a sense of security, uphold objectivity, and demonstrate the nurse's commitment. This competency facilitates sensitivity in establishing trusting relationships, encourages objective and flexible actions, promotes a reflective decision-making process, and ensures the preservation of confidentiality and honesty [45]. Learning ethics in nursing is imperative as it equips students for clinical practice. The education undertaken by nurses and nursing students in delivering nursing services extends beyond mere knowledge and skills or adherence to guidelines. It also involves the incorporation of personal values, beliefs, and ethical orientation into their practice. This comprehensive approach ensures that ethical considerations are an integral part of the nursing profession, influencing decision-making and actions in patient care [47]. This underscores the significance of acquiring ethical competence through the learning of values and character. Enhancing ethical competence requires deliberate planning and implementation, involving the creation of conducive learning conditions, the design of effective learning strategies, and interactive engagement with others. The application of module interventions is enacted by establishing favorable learning conditions, which include the identification and exploration of ethical issues within real-world practice situations [47]. Reflection on nursing ethical values is conducted both in the classroom and during clinical practice, allowing students to cultivate ethical awareness in service and enhance their skills in ethical dilemma decision-making. Ethical competence is attained through a combination of knowledge and practical application, as it is intertwined with the development of character strength, ethical awareness, moral judgment skills, and the determination to act ethically [45].

3.1.3. Practical competency based on legal aspects

Proficiency in legal aspects is imperative for nurses and nursing students, given the substantial influence of nursing services on legal considerations. Legal protection for health workers is intricately tied to the adequacy of authority and the fulfillment of competence. The foundations for legal protection encompass the health law, nursing law, government regulations on health workers, minister of health regulations on licensing, implementation of nursing practice, and standard operating procedures (SOP) for services [48]. Nurses are required to navigate various aspects within the legal framework, including passing competency tests, holding a registration certificate, and obtaining a practice permit for nurse [49]. Additionally, considerations such as the type of service, practice authority, rights and obligations, sanctions, and adherence to existing regulations are crucial [50]. It is imperative for nurses to be cognizant of legal responsibilities, especially concerning negligence or malpractice, to prevent potential legal repercussions [51]. Health workers who fulfill their duties within the bounds of their authority and demonstrate competence are typically regarded as innocent, leading to the dismissal of charges against them. This underscores the importance of adhering to professional standards and legal regulations in the healthcare field to ensure the proper and lawful execution of duties [48]. Nursing students must grasp the legal dimensions of clinical practice as they deliver services in hospitals or health centers. Attention to learning legal aspects is crucial, and character learning imparts values related to nurses' responsibilities in nursing services.

Character learning enhances students' sense of responsibility toward serving patients, the nursing profession, and themselves. Oyetunde and Ofi [51], asserts that mastering professional accountability in nursing is essential for maintaining high service standards and preventing harm to patients. Understanding the legal aspect, particularly in cases of malpractice and negligence, is crucial, as these involve wrongful acts causing unintentional or intentional harm. Nurses well-versed in the legal aspects of nursing play a key role in upholding the rights of nurses, patients/clients, and adherence to practice standards.

3.1.4. Practical competency based on cultural sensitivity

According to Markey and Okantey [52], cultural competencies that students need to acquire for implementing nursing care for patients from diverse cultures include caring, compassion, commitment, effective intercultural communication, and cultural courage. Comprehending these values will influence the quality of services provided by qualified nurses and students to patients from the same or diverse cultures, as well as the impact of various cultures on public health. It is crucial to incorporate these values and characters into nursing learning and education. In this research, character learning has specifically instructed these values and behaviors aligned with cultural competence [53].

Providing nursing care that is culturally sensitive and attuned is a complex endeavor, emphasizing the need to adequately prepare nursing graduates through a comprehensive nursing curriculum [54]. Cultural competency is an essential aspect that must be integrated into the nursing curriculum [53]. Competencies that offer opportunities to apply theoretical principles underlying care in practical settings within a supportive environment are crucial for the development of cultural competence. The nursing curriculum is executed as

character learning, commencing with a self-reflection on one's capabilities regarding cultural competence. This aligns with previous study that emphasizing the importance of nurses having personal awareness. This awareness includes self-perception of their cultural competence level based on experience in patient care, identification of learning needs related to practical experience and exposure to patients from diverse cultures, and recognition of knowledge gaps in cultural competency issues [53]. The teaching and learning approach promote student exploration of how ethnicity, gender, class, sexuality, and age influence the utilization of health services in society. In nursing education, it is crucial to ensure the development and perpetuation of culturally compassionate care throughout both educational and clinical practice experiences [52]. Character learning for cultural competency is applied in interactions with patients and the community. It involves enhancing students' cultural knowledge by studying the patient's culture, understanding language differences, familiarizing themselves with cultural behaviors, and learning the patient's language terminology [54].

4.   CONCLUSION

The implementation of a caring-based character learning module has the potential to enhance the competency of professional nursing students, particularly in practical aspects related to ethics, law, and cultural sensitivity. This module focuses on cultivating qualities such as sincere work, empathy, toughness, critical thinking, and responsibility to bolster students' competency achievements. A robust character is seen as a facilitator for students to attain their competencies effectively in various learning environments-classroom, laboratory, and clinic. As part of nursing education, interventions like character learning modules can be incorporated into the curriculum, training programs, or extracurricular activities.

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