



The Learning Needs of Nursing Students in Digital Simulation Based Spiritual Care: A Qualitative Study

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Abstract

Spiritual care is an essential component of holistic nursing, yet many nursing students still lack confidence in providing it. Digital simulation has emerged as an innovative strategy to address learning needs and enhance competencies in spiritual care. This exploratory qualitative study aims to explore nursing students' learning needs regarding spiritual care through digital simulation and its contribution to the development of self-efficacy. Semi-structured in-depth interviews were conducted with 11 senior-year students (5 in clinical stages and 6 in academic stages) who had participated in digital simulations. Participants were recruited purposively until data saturation was achieved. Thematic analysis using the Braun and Clarke framework with the assistance of NVivo 12 yielded four main themes: (1) learning needs encompass spiritual assessment, empathetic communication, and cross-cultural understanding; (2) self-efficacy is still developing, reinforced by peer and faculty support; (3) digital simulations enhance self-confidence, though limited to cultural contexts; and (4) development expectations include more diverse scenarios, automated feedback, and reflective discussions with faculty. This demonstrates the potential of digital simulations in identifying learning needs and strengthening students' spiritual care competencies. Nursing education institutions are advised to integrate them into the curriculum by strengthening faculty capacity and incorporating scenarios sensitive to cultural and religious diversity. Further quantitative research is recommended for a more objective evaluation.

Keywords: Islamic Education; Digital simulation; learning needs; nursing students; spiritual care

Abstrak

Perawatan spiritual merupakan komponen esensial dalam keperawatan holistik, namun banyak mahasiswa keperawatan masih kurang percaya diri dalam memberikannya. Simulasi digital muncul sebagai strategi inovatif untuk menjawab kebutuhan pembelajaran serta meningkatkan kompetensi dalam perawatan spiritual. Penelitian kualitatif eksploratif ini bertujuan untuk mengeksplorasi kebutuhan belajar mahasiswa keperawatan terkait perawatan spiritual melalui simulasi digital serta kontribusinya terhadap pengembangan self-efficacy. Wawancara mendalam semi-terstruktur dilakukan terhadap 11 mahasiswa tingkat akhir (5 pada tahap klinik dan 6 pada tahap akademik) yang telah mengikuti simulasi digital, dengan teknik purposive sampling hingga mencapai kejenuhan data. Analisis tematik menggunakan kerangka Braun dan Clarke dengan bantuan NVivo 12 digunakan untuk mengidentifikasi pola temuan. Hasil penelitian menunjukkan empat tema utama: (1) kebutuhan belajar meliputi asesmen spiritual, komunikasi empatik, dan pemahaman lintas budaya; (2) self-efficacy mahasiswa masih berkembang dan diperkuat oleh dukungan teman sebaya serta dosen; (3) simulasi digital mampu meningkatkan kepercayaan diri, meskipun masih terbatas pada konteks budaya tertentu; dan (4) harapan pengembangan mencakup penyediaan skenario yang lebih beragam, umpan balik

otomatis, serta diskusi reflektif bersama dosen. Temuan ini menegaskan bahwa simulasi digital memiliki potensi signifikan dalam mengidentifikasi kebutuhan belajar sekaligus memperkuat kompetensi perawatatan spiritual mahasiswa. Oleh karena itu, institusi pendidikan keperawatan disarankan untuk mengintegrasikan simulasi digital dalam kurikulum dengan memperkuat kapasitas dosen serta mengembangkan skenario yang sensitif terhadap keragaman budaya dan agama, serta didukung oleh penelitian kuantitatif lanjutan untuk evaluasi yang lebih objektif.

Kata kunci: *digital simulation, Islamic education, learning needs, nursing students, spiritual care*

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Introduction

Spiritual care is an integral component of holistic nursing that integrates physical, psychological, social, and spiritual dimensions to comprehensively meet patients' needs, improve quality of life, and reduce stress and depression (Hu et al., 2025; Rabiei Vaziri et al., 2025). However, many nursing students still exhibit low levels of confidence in providing spiritual care, due to a lack of formal training, unclear roles, and challenges related to cross-cultural and religious understanding (Cone et al., 2023; Timmins et al., 2025; Chan et al., 2016; Wu & Lin, 2017; Papadopoulos & Ali, 2016). In Indonesia's multicultural and religiously diverse context, patients' spiritual needs are often closely tied to religious values, yet nursing education still falls short in effectively integrating these elements.

Preliminary data from this study support the existence of this issue. From semi-structured in-depth interviews with 11 senior nursing students, 8 respondents (72.7%) reported a lack of confidence in conducting spiritual assessments, particularly with patients from different cultural backgrounds, as expressed: "I hesitate to start a conversation without offending their beliefs." Observations during initial digital simulations showed that only 45% of students were able to effectively integrate empathetic communication. Additionally, a preliminary questionnaire (n=15) recorded an average self-efficacy score of 2.8 on a 5-point scale, indicating a gap between theoretical knowledge and practical skills.

Recent developments in nursing education indicate an increased focus on spiritual care competencies through innovative approaches, particularly simulation. A literature review covering the period 2015–2025 reveals an evolution from foundational understanding and heightened awareness toward structured, competency-based interventions. Studies such as Timmins et al. (2015) highlight that core nursing textbooks often provide minimal coverage of spiritual care concepts, leaving students ill-prepared to provide holistic care. Frouzandeh et al. (2015) demonstrate that a three-phase training

program significantly enhances nursing students' self-efficacy in providing spiritual care. Subsequent studies from 2017–2023 identified moderate to low levels of spiritual care competence among nurses and students, primarily due to a lack of formal education and curriculum integration (Adib-Hajbaghery et al., 2017; Guo et al., 2023). Further developments from 2023 to 2025 highlighted the effectiveness of competency-based programs, such as the EPICC model (Education, Practice, Integration, Competence, Collaboration) incorporating simulation, which resulted in significant improvements in competency scores (Cone et al., 2023; Sitefane-Afonso et al., 2025). Cone and Giske (2017) present a literature review on the teaching of spiritual care to nursing students, emphasizing the importance of integrating concepts of spirituality into the curriculum to enhance students' readiness for holistic practice.

The primary gap lies in the lack of exploration of culturally adapted digital simulations in religious contexts such as Indonesia, where the global literature is predominantly focused on the West or the Middle East. The valid and saturated preliminary data from this study (interviews, observations, and questionnaires) indicate a need for cultural adaptation in simulations to enhance their relevance and effectiveness. This study addresses this gap through an exploratory qualitative approach that emphasizes digital simulations grounded in the Indonesian context, contributing to nursing science through innovative curriculum recommendations, enhanced student self-efficacy, and the promotion of holistic care that is inclusive and culturally sensitive.

The purpose of this study is to explore nursing students' learning needs regarding spiritual care through digital simulation and to examine its impact on self-efficacy in spiritual care competencies. The novelty lies in the integration of digital simulation with the Indonesian religious context (the majority of students are Muslim), which has not been deeply explored, differing from previous studies such as Cone et al. (2023), which were general in nature, or Sitefane-Afonso et al. (2025), which did not focus specifically on local cultural adaptation.

Methods

This study employed an exploratory qualitative design to explore nursing students' experiences with spiritual care through digital simulation. The data analysis technique was thematic analysis, following the six-step process outlined by Braun and Clarke (2006): (1) familiarizing oneself with the data through re-reading the transcripts; (2) systematically generating initial codes for relevant data segments using NVivo 12. The study participants were 11 senior nursing students from the Nursing Science

program at Syarif Hidayatullah University, Indonesia. Participants were recruited purposively based on inclusion criteria: being actively enrolled in academic or clinical programs, having prior exposure to spiritual care material through coursework, and being willing to participate fully. Exclusion criteria included students on academic leave or those unable to complete the interview in full. Recruitment was conducted through classroom announcements and internal university emails until data saturation was reached, defined as the point when no new themes emerged from additional interviews.

The principal investigator is a nursing faculty member with experience in spiritual care education and the development of simulation-based learning. To minimize potential interpretive bias, the data analysis process was conducted collaboratively with other members of the research team. In addition, the researcher engaged in ongoing reflection throughout the data collection and analysis process to identify perspectives and assumptions that might influence the interpretation of findings. The second and third researchers had no direct academic relationship with the participants at the time the study was conducted.

The primary instrument is a semi-structured interview guide developed by the researchers based on a preliminary literature review of spiritual care and digital simulation. This guide consists of 10–12 open-ended questions, such as “What has your experience been like using digital simulations to learn about spiritual care?” and “What are your unmet learning needs regarding spiritual assessment?” Interviews were conducted online via the Zoom platform to facilitate access, with each session lasting 30–60 minutes. All interviews were audio-recorded with participants’ consent and transcribed verbatim by the researchers to ensure accuracy.

The digital simulation used in this study is a scenario-based digital simulation designed to train students’ skills in providing spiritual care to patients. The simulation is presented in the form of interactive computer-based scenarios that depict clinical situations involving patients with specific spiritual needs. Students are asked to analyze the patient’s condition, select an appropriate communication response, and reflect on the decisions made. Each simulation session lasts approximately 30–40 minutes and is followed by a reflective discussion with the instructor.

The research protocol was submitted to and approved by the Research Ethics Committee of the Faculty of Health Sciences at Syarif Hidayatullah University (Un.01/F.10/KP.01.1/KE.SP/05.08.008/2025). Afterward, participants were contacted individually to explain the study, including its objectives, minimal risks (such as

emotional discomfort), benefits, and the right to withdraw at any time. Written informed consent was obtained via a digital form before the interviews began, and confidentiality was ensured through the use of anonymous codes (e.g., Participant 1–11) and the storage of data on a secure server accessible only to the researchers. Data collection took place from March to June 2025. Interviews were conducted one-on-one, beginning with an opening question to establish a trusting relationship, followed by core questions, and concluding with an opportunity for the participant to add comments. After each interview, the researcher took reflective notes to document potential biases or nonverbal observations (such as facial expressions via video). Transcripts were created within 24 hours of the interview using automatic transcription software, which were then manually verified.

The data analysis technique is a thematic analysis consisting of six stages: (1) familiarizing oneself with the data by rereading the transcripts; (2) systematically generating initial codes on relevant data segments using NVivo 12 to organize the codes; (3) identifying potential themes by grouping similar codes; (4) reviewing the themes to ensure their consistency with the original data and the entire dataset; (5) clearly defining and naming themes; and (6) compiling an analysis report with supporting citations (Pradono, Marta & Suwandono, 2018).

Data trustworthiness was ensured through member checking and discussions among researchers. All steps were documented in the research journal to allow for verification. The trustworthiness of this study was ensured through several strategies (Korstjens & Moser, 2018). Credibility was enhanced through member checking by asking participants to review summaries of interview results and through discussions among researchers regarding the coding process. Dependability is maintained by systematically documenting the entire research process, including data collection and analysis procedures. Confirmability is strengthened through audit trails and researcher reflection to minimize interpretive bias. Transferability is supported by providing detailed descriptions of the research context and participant characteristics so that readers can assess the relevance of the findings to other contexts.

Result and Discussion

This study identified four main themes from a thematic analysis of semi-structured interview data with 11 final-year nursing students (5 students in the clinical phase and 6 in the academic phase). The participants consisted of 9 women and 2 men,

with an average age of 22.5 years (range 21–24 years), and all had prior exposure to spiritual care material through the curriculum. These themes reflect learning needs, perceptions of self-efficacy, experiences with digital simulations, and expectations for development, with supporting quotes from participants to illustrate the emerging patterns. No raw data is presented; only meaningful analysis results are included. Table 1 summarizes the main themes along with their subthemes and frequency of occurrence in the interviews.

Table 1. Research Results

Main Theme	Sub-Themes	Representative Quotes
1. Learning Needs in Spiritual Care	<ol style="list-style-type: none"> 1. Spiritual Assessment 2. Empathetic Communication 3. Cross-Cultural and Interfaith Understanding 4. Integration of Local Religious Values 	<p>“I still need to learn how to conduct a sensitive spiritual assessment. I can see when a patient appears anxious or spiritually distressed, but I’m not confident about starting a conversation without offending their beliefs, especially if the patient comes from a different cultural or religious background.”</p>
2. Nursing Students’ Perception of Self-Efficacy	<ol style="list-style-type: none"> 1. Still in the developmental stage 2. Strengthened by support from peers and faculty 3. More confident with patients of the same faith 4. Fear of making ethical mistakes 	<p>“My confidence is still growing. I feel more comfortable when patients share my beliefs, but I get hesitant when they don’t. Support from professors and classmates has been very helpful, because their guidance helps me not be so afraid of making mistakes.”</p>
3. Digital Simulation Experience	<ol style="list-style-type: none"> 1. Boosting confidence and understanding 2. Useful for practicing empathetic communication Limited by a lack of local cultural context 3. Technology accessibility is quite good 	<p>“Digital simulations have boosted my confidence because they demonstrate how to communicate empathetically in spiritual care situations. However, some scenarios don’t fully align with our cultural context, so I need additional explanations from the instructor to adapt the appropriate responses.”</p>
4. Expectations for Digital Simulation Development	<ol style="list-style-type: none"> 1. More diverse case scenarios (cultural & religious) 2. Automated feedback after simulations 3. Reflective discussions with instructors - More comprehensive interactive “ ” features 	<p>“I hope the simulation can include more diverse case scenarios and provide automatic feedback. It would be easier to learn if I could immediately see which response is correct and how to improve it. Reflective discussions with the instructor would also be very helpful.”</p>
5. Learning Needs in Spiritual Care	<ol style="list-style-type: none"> 1. Spiritual assessment 2. Empathetic communication 3. Cross-cultural and religious understanding 4. Integration of local religious values 	<p>“I still need to learn how to conduct a sensitive spiritual assessment. I can tell when a patient seems anxious or spiritually distressed, but I’m not confident about initiating a conversation without offending their beliefs, especially if the patient comes from a different cultural or religious background.”</p>

This study explores nursing students’ experiences with learning spiritual care through digital simulations, focusing on their learning needs, perceived self-efficacy, experiences using digital simulations, and expectations regarding the development of

this learning method.

The first theme highlights the dominant learning need regarding the ability to conduct sensitive spiritual assessments and engage in unbiased communication, particularly within the context of Indonesia's multicultural and multireligious society. Nearly all participants reported difficulties when interacting with patients of different faiths. The second theme describes the participants' perceived levels of self-efficacy, which generally ranged from low to moderate. In this exploration, social support—particularly from faculty and peers—emerged as a factor perceived to aid in building self-confidence. Participants also stated that they tended to feel more confident when dealing with patients who shared the same religious background.

The third theme reflects participants' experiences in using digital simulations as a medium for spiritual care education. In general, simulations were viewed positively because they provided a safe and relatively realistic practice environment. However, participants also highlighted limitations in the representation of local cultural contexts, such as Islamic religious values, Javanese customs, and other Nusantara traditions; consequently, in some situations, they felt the need to seek additional explanations outside the simulation. The fourth theme describes participants' hopes for the future development of digital simulations. Participants emphasized the importance of immediate feedback, a wider variety of cases, and the integration of reflection sessions with instructors to deepen the learning process.

Overall, these findings illustrate how students perceive the use of digital simulations in spiritual care education, while also identifying aspects they consider important for supporting more context-sensitive learning in nursing education in Indonesia.

The results of this study reveal that nursing students have learning needs in spiritual care, particularly in spiritual assessment and cross-cultural-religious communication, which aligns with the findings of Sitefane-Afonso et al. (2025) showing improved competencies through EPICC-based digital interventions, although their Portuguese context placed less emphasis on religious adaptation than in Indonesia. A critical analysis highlights that low self-efficacy (theme 2) can be addressed through social support from faculty and peers, similar to the study by Rabiei Vaziri et al. (2025), which found a positive correlation between spiritual sensitivity and competence, indicating the need for faculty support to reduce fear of ethical errors

Digital simulation experiences (theme 3), while effective, are limited by a lack of

local cultural context; they highlight the scarcity of representations of Indonesian religious and traditional values in educational technology. This is supported by Bush et al. (2023), who found that simulations improved competencies by up to 30% among psychiatry students, but require adaptation to ensure relevance. Development prospects (theme 4) involving diverse scenarios, automated feedback, and critical reflective discussions can enrich the curriculum

Development expectations emerging from the fourth theme—including more diverse case scenarios, automated feedback, and critical reflective discussions—highlight the importance of learning strategies capable of supporting the more systematic development of spiritual care competencies in nursing education. Spiritual care is recognized as an integral part of holistic nursing practice because it relates to patients' needs for meaning, hope, and faith in coping with health conditions. Several previous studies have also highlighted the urgency of strengthening these competencies in nursing education. For example, Cruz et al. (2025) reported that students' spiritual well-being significantly correlates with spiritual care competencies, indicating that personal readiness and the learning process play a crucial role in the development of these competencies. In this context, the findings of this study provide an exploratory understanding of students' experiences and perceptions regarding the use of digital simulations in spiritual care learning, while also identifying aspects that need to be developed so that this learning method is more contextual and relevant for nursing students in Indonesia. These findings also open opportunities for future quantitative research to test this relationship more objectively.

These findings are also consistent with a national study in Indonesia that highlights similar challenges among nursing students. For example, students' perceptions of spiritual care are often still low or moderate, with the main barrier being a lack of confidence when dealing with patients from diverse backgrounds (Azzahra et al., 2018). Additionally, students' personal spirituality is positively correlated with the implementation of spiritual care, although its application remains suboptimal due to a lack of specialized training (Gayatri et al., 2023). Another study found that students possess good spirituality, but the implementation of spiritual care needs to be strengthened through the addition of curriculum materials (Putri, 2023). These findings align with national and international studies, including Yun (2022), who identified a convergent relationship between spiritual well-being, spiritual nursing competence, and attitudes toward death among nursing students. Furthermore, the readiness of new

nurses, including recent graduates, to provide spiritual care requires acclimatization beginning during their education. Spirituality in the nursing context is generally understood as a dimension related to the search for meaning, life purpose, values, and an individual's relationship with oneself, others, nature, or transcendental beliefs. In clinical practice, this aspect is often linked to religious beliefs, hopes, and how patients interpret their experiences of illness. Therefore, the development of spiritual care competencies (Baldacchino, 2015; McSherry & Jamieson, 2017; Caldeira et al., 2017) is

crucial from the educational stage, particularly in a religious society such as Indonesia. Previous research indicates that Muslim nursing students often face limitations in adapting spiritual care practices to diverse religious contexts, necessitating contextualized learning and adaptation processes (Setiowati & Ahmad Said, 2024).

Conclusion

Digital simulations effectively explore nursing students' learning needs regarding spiritual care while also being perceived as enhancing their self-efficacy in spiritual care competencies. Digital simulations provide a safe practice environment for honing spiritual assessment, empathetic communication, and cross-cultural and interfaith understanding, thereby supporting the development of their evolving self-confidence, particularly through the support of faculty and peers. The primary novelty lies in the application of digital simulations within the religious and multicultural context of Indonesia, which emphasizes the importance of adapting to local cultures—an aspect that has yet to be deeply explored. Conceptually, the findings of this study indicate that digital simulations serve not only as a medium for learning clinical skills but also as a reflective space that helps students develop sensitivity and self-confidence in providing spiritual care.

This study has several limitations. First, the sample size was relatively small, so it may not be representative of all nursing students. Second, the study was conducted at a single institution, so the results may not be generalizable to other nursing education contexts. Third, participants' experiences with digital simulations may have been influenced by individual factors that the researchers could not fully control.

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