



The Impact of the Quranic Teachings on the Resilience and Caring Behaviors of Nursing Students Amid Crises Such as the COVID-19 Pandemic

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Abstract: This research examined the impact of the Quranic teachings on the resilience and caring behaviors of nursing students amid crises such as the COVID-19 pandemic. This quasi-experimental study was conducted on 87 nursing students. The participants were randomly divided into intervention and control groups. For the intervention group, Quranic teachings were taught and the control group attended the clinical environment according to the routine. Before and after the intervention, the groups completed the resilience and caring behavior questionnaire. The findings of the study show a statistically significant difference in the resilience score before and after the training in the intervention group compared to the control group. The results also show a statistically significant difference in the care behavior score before and after the training in the intervention group compared to the control group. Findings illustrate how health organizations and their leaders may improve nurses' resilience and caring behaviors by integrating religious teachings in their training programs. More specifically, results provide insights into the advantages of including Quranic teachings in nursing education as these may foster resilience and caring behaviors that are essential in providing quality of nursing care especially amid health crises.

Keywords: Quran, nurse, care, resilience, COVID-19

Impact and Implications: The importance of “substantially increasing health financing and the recruitment, development, training, and retention of the health workforce in developing countries” (WHO, n.d.) is emphasized in the 2016–2030 United Nations Sustainable Development Goals (SDGs; SDG 3.C). This research highlights that Quranic teachings can play significant role in enhancing the resilience and caring behaviors of nursing students, particularly during crises such as the COVID-19 pandemic. This could be particularly valuable in crisis situations where emotional and psychological support is crucial for both healthcare providers and patients.

One of the most important abilities, which help an individual cope with changes and stressors in difficult conditions, is resilience (Brailovskaia et al., 2018). As a psychological skill, resilience is integral to achieving peace and mental health. Resilience enables an individual to maintain equilibrium in stressful situations (Wang et al., 2020). Resilience is a characteristic noted as important in both Islamic teaching and positive psychology (Feroozanfar, 2020). Caring is the essence of nursing and the profession's underlying disciplinary core, which is best expressed and practiced interpersonally (Ashagere et al., 2023).

There is a scarcity of studies on the impact of the teachings of the Quran on the resilience and caring behaviors of nursing students in clinical environments. While studies report low to moderate levels of resilience among

nurses (Afek et al., 2021; Aqtam et al., 2023), researchers maintain that resilience and satisfactory caring behaviors are essential to success in the nursing profession and that nurses must actively improve their resilience to cope with problems in the workplace (Kyani et al., 2020). Research shows that resilience plays a key part in increasing nurses' job satisfaction as well as improving the quality of care provided by them (Hasani et al., 2022; Salmani et al., 2023).

Extant studies (e.g., Jeon et al., 2023; Sharif Nia et al., 2017) have examined the relationship between religion and resilience; religion and caring behavior and the impact of religion on resilience and caring behavior (e.g., Balay-Odao et al., 2025; Chang et al., 2021). Quran is the holy book for Muslims and fewer studies have focused on the direct influence of the Quranic teachings on stress

especially due to the COVID-19 pandemic. The finding of this study can provide insights into the advantages of including Quranic teachings in nursing education as these may foster resilience and caring behaviors that are essential in providing quality nursing care especially amid health crises.

Resilience in the Nursing Profession

Resilience is important for nurses who encounter many risk factors in their work life since they have to provide professional care to patients under challenging conditions (Hart et al., 2014; McCann et al., 2013). The nurses must learn to overcome these difficulties and develop better coping mechanisms and resilience to address stress as they are constantly exposed to difficult working situations and environments (Stephens et al., 2017). Nursing students with higher levels of resilience have a better perception of their quality of care and educational environment. It is thus necessary to improve nursing students' resilience because they will be facing stressful and emotionally demanding situations (Choi & Lee, 2020; Cooper et al., 2020).

Resilience in Religious Teachings

Islamic literature's claims about religious teachings as a resource for coping with life's difficulties align with other scholarly perspectives (Chamsi-Pasha & Chamsi-Pasha, 2021). For example, in the Holy Quran, the concept of resilience is highly related to patience (Al-Baqara/153). Resilience, the ability to adapt and recover from challenges and adversity, is a vital skill that every individual needs to develop to thrive in life. Islam provides a unique perspective on resilience, emphasizing the importance of trust in Allah, patience, and perseverance in facing life's challenges. The Quran states, "And seek help through patience and prayer, and indeed, it is difficult except for the humbly submissive [to Allah]" (Al-Baqara/45). This verse emphasizes the importance of patience and prayer in seeking help during times of difficulty. Muslims are encouraged to turn to Allah and seek his guidance and support in facing life's challenges.

Furthermore, the concept of Sabr (patience) is central to resilience in Islam. Muslims are expected to demonstrate patience and perseverance in the face of adversity, trusting in Allah's plan for their lives. The Quran states, "Indeed, Allah is with the patient" (Quran, Al-Baqara/153). This verse highlights the importance of patience and perseverance in achieving success and overcoming challenges.

According to the Quran, patience is the most important coping strategy in the face of various physical and mental

pressures. Being in effect equivalent to tolerance and forbearance, patience strengthens an individual's will to achieve human ideals and fulfill one's duties so that despite immense pressure and dangers, one can have better professional performance and overcome problems. Resilient people are flexible problem solvers who can adjust to changes in their environment (Jabbari et al., 2020).

Caring Behavior in the Nursing Profession

Jean Watson's (2008) theory of human caring as the foundation for professional nursing practice notes how "Caring begins with being present, open to compassion, mercy, gentleness, loving kindness, and equanimity toward and with self before one can offer compassionate care to others" (Watson, 2008, p. 28). Caring behaviors consist of the ethics and deeds which the nursing professionals exhibit. These behaviors play a key part in nursing and can alleviate patients' pains, meet their predictable needs, and show concern for their comfort (Ghanbari-Afra et al., 2022). Nurses provide more than 70% of healthcare services. Being directly responsible for caring of patients, nurses had been in the frontline of the battle against crises such as the COVID-19 pandemic. Therefore, they are expected to display behaviors that contribute to the comfort of the infected (Xiaohuan et al., 2018). Since nurses have the most direct contact with patients in healthcare, their mental peace has a significant impact on the quality of care provided by them (Liu et al., 2020).

Nurses' Resilience and Caring Behavior in the Iranian Context

Iran is an Islamic country and the majority of nurses and patients in this country are Muslim. In Islamic countries, compared to other societies, much emphasis has been placed on the use of resilience and spirituality in nursing and medical professions (Mirzaee et al., 2022).

Studies illustrate how positive social relationships and spirituality have a positive impact on nurses' resilience level. Nurses with low resilience level experience more emotional exhaustion and job dissatisfaction (Han et al., 2023; Ren et al., 2018). The role of religion in fostering resilience is assessed in the literature (Chang et al., 2021; Fradelos et al., 2020). As mentioned before, most studies have examined the relationship between religion and resilience, caring behavior and resilience; or the impact of religion on resilience and caring behavior. Quran is the holy book for Muslims and fewer studies have focused on

the direct influence of the Quranic teachings on stressful healthcare situations such as amid COVID-19.

Statement of the Problem

The current study aimed to investigate the impact of the Quranic teachings on the resilience and caring behaviors of nursing students amid crises such as the COVID-19 pandemic. This study then posed the following research hypotheses:

1. The resilience and caring behaviors of nursing students will be significantly different before and after learning about Quranic teachings
2. The resilience and caring behaviors of nursing students will be significantly different between the intervention and control groups

Method

This is a quasi-experimental study with a pretest–posttest design to investigate the impact of the Quranic teachings on the resilience and caring behaviors of nursing students. Before describing the details of how the research was conducted, the succeeding section provides a description of the research setting as well as the participants of the study.

Research Setting

In Iran, the length of the bachelor's degree in nursing is four years and includes general, basic, main, specialized, and internship courses. Students spend the first three years taking theoretical and clinical courses, and the fourth year is dedicated only to clinical courses (practice in the field). This study was conducted in the clinical wards of Amiralmomenin Hospital affiliated with Gerash University of Medical Sciences (Gerash is a city located in the south of Fars Province) from September to October 2020. The clinical wards are areas where nursing students receive their field training according to the curriculum for each semester as determined by the faculty of the nursing school.

Participants

The participants of the study were second- to fourth-year undergraduate nursing students. Sample size was calculated using the software MedCalc with type I error

probability of $\alpha = .01$ and power ($\beta - 1$) of 99% (O'Sullivan & Lindsay, 2023). Accordingly, each group was determined to consist of 20 participants, which was raised to 45 to increase power and to reduce the potential impact of losing some participants in the process of data collection. Thus, 90 students were selected for the study. The participants were selected via convenience sampling. Initially, the researchers acquired a list of all the undergraduate nursing students who were receiving clinical training in the fall semester of 2022 from the faculty education office. The sampling unit was the clinical training groups. Students are placed in small groups (eight–nine student per group) by the head of education to enter the clinical environment; therefore, some groups entered the clinical environment at the beginning of the semester and some in the middle of the semester. This is due to the limitation of departments and clinical wards that cannot accept all students at the same time and also the normative process of educational planning. Therefore, since many of the students lived in the same dormitory, to prevent the students from sharing information, students who received training at the start of the semester were assigned to the control group, while those who were assigned to training groups at a later part were assigned to the intervention group. After the completion of the study for the control group (five groups with nine students in each group = 45) and their posttest evaluation, the intervention based on the teachings of the Quran was implemented for the intervention group (five groups with nine students in each group = 45). The inclusion criteria of the study were as follows: being a second- to fourth-year nursing student in a continuous bachelor's degree program (with experience of practice in clinical environments), having taken a training course in the fall semester of 2020, having access to high speed internet, owning a cell phone to install and use the application Rubika, not having a history of mental illness (based on self-declaration), and not having attended any courses on resilience. The exclusion criteria were: being on a leave of absence; failure to be present in clinical environments in the course of the study; missing more than one session of the online course; experiencing an unforeseen crisis, e.g., contracting COVID-19 during the study; and being unwilling to continue one's participation. Eighty-seven nursing students (divided into a control and an intervention group) participated in this quasi-experimental study. From the intervention group, two students were excluded because of their absence or tardiness in the educational sessions; from the control group, one student was excluded because of her infection with COVID-19. All participants were Muslim. Seventy percent of the participants in the control and experimental groups were female. According to Table 1, the participants were homogenous in terms of demographic variables at the

Table 1. Baseline characteristics of the intervention and control groups in terms of their demographic variables

Variable	Group	Frequency (percentage)		χ^2 test results
		Experimental (n = 43)	Control (n = 44)	
Gender	Female	30 (69.7)	31 (70.4)	$p = .35$
	Male	13 (30.2)	13 (31.8)	$\chi^2 = 0.00$
Marital status	Single	36 (83.7)	38 (86.3)	$p = .65$
	Married	5 (11.6)	3 (6.8)	$\chi^2 = 4.28$
	Divorced	2 (4.6)	3 (6.8)	
Year of study	2	12 (27.9)	13 (29.5)	$p = .74$
	3	18 (41.8)	20 (45.4)	$\chi^2 = 2.12$
	4	13 (30.2)	11 (25.0)	
Quantitative variables		Mean \pm SD	Mann-Whitney U test results	
Age		22.76 \pm 6.19	21.96 \pm 6.23	$p = .29$

beginning of the study. There were not any statistically significant differences between the two groups in terms of gender ($p = .35$), marital status ($p = .65$), and year of study ($p = .74$; Table 1).

Data Collection Instruments

The data collection instruments consisted of a demographics survey, a resilience scale, and a caring behaviors inventory.

The Resilience Scale

Developed by Connor and Davidson (Connor & Davidson, 2003), this scale consists of 25 items scored on a five-point Likert scale. Each item can earn a score of 0 to 4: *not true at all = 0, rarely true = 1, sometimes true = 2, often true = 3, and always true = 4*. The total score range is between 0 and 100. The total resilience score is divided into four levels, 0–25, 26–50, 51–75, and 76–100, with higher scores indicating greater resilience. The resilience scale is comprised of five factors: personal competence, trust in one's instincts, positive acceptance of change and secure relationships, control, and spiritual influence. The validity and reliability of the scale have been verified in studies. In Miller et al.'s study, exploratory and confirmatory factor analysis was used to determine validity. EFA identified three factors with eigenvalues >1.0 and an explained variance of 59% and CFI = .93. Cronbach's α coefficient was also reported as $a = .90$ to determine internal consistency (Mealer et al., 2016). In Kyani's study with Iranian participants, the face validity of the tool was confirmed by 10 experts and the content validity was confirmed by calculating the content validity index and the content validity ratio was .80 and .71, respectively. The Cronbach's α coefficient of the scale was .89.

The Caring Behaviors Inventory

The caring behaviors inventory (CBI) evaluates nurses' caring behaviors. The inventory consists of five subscales, namely: respectfulness, assurance of human presence, positive connectedness, professional knowledge and skills, and deference to others' experiences. Items 1–33 measure the psycho-emotional aspects and Items 34–42 measure the physical aspects of caring behaviors. Each item is scored on a six-point Likert scale: *never = 1, rarely = 2, occasionally = 3, sometimes = 4, often = 5, and always = 6*. To calculate the mean score of each subscale, the scores of the items are added up and divided by the number of the items. In CBI, higher scores indicate better caring behaviors. The validity and reliability of the inventory have been verified (M. Akgün et al., 2020; Zahaki Arasteh et al., 2023). In Akgun et al.'s study, the content validity index for the items was between .97 and 1, and the content validity index of the whole tool was reported as .99. Also, internal consistency using Cronbach's α was $a = .98$ (Akgün et al., 2020). In another study, Soltanian et al. confirmed the content validity of the tool according to experts' opinion (CVI = .8). The retest reliability result was .89, and Cronbach's α coefficient was $a = .92$ (Soltanian, 2016). In the present study, $a = .90$.

Data Collection Procedures

The research project for the present study was approved by Shiraz School of Nursing and Midwifery and Gerash School of Nursing. The students in the intervention and control groups were informed about the objectives of the study and asked to give written informed consent. On the first day of their clinical training, the students in the control group completed the caring behaviors and resilience questionnaires. Then, after going through their

routine clinical training (5 weeks), they completed the questionnaires again. In the next stage, after having completed the same questionnaires on the first day of their clinical training, the students in the intervention group were exposed to the education. The educational program for this group consisted of 30- to 35-min online and offline sessions which were held twice a week on Rubika. The content of the education was presented through video clips, lectures, and podcasts. To prevent the intervention from interfering with the students' theory classes and clinical training, the researchers implemented the educational intervention from 20 to 20:30 in the evening. The intervention was designed to last 10 sessions to match the length of the students' clinical training (5 weeks). The researchers used the application Rubika for the following reasons: It is a national messenger application, completely supports Persian, is easy to use, and allows for interaction.

On Rubika, it is possible to make live voice and video calls, and during a meeting, the audience can participate in the discussion. To answer the students' potential questions, the researchers had the lessons from the Quran designed and presented by a group of Quran scholars at Imam Hadi Daraltahfiz (consisting of the manager, his assistant, a Quran psychologist, and two other experts) in the city of Jahrom under the supervision of the researchers (see Table A1 in the Appendix). In each session, some verses from the Quran, which were related to the topic of that session, were recited, translated, and explained. The education took the form of lecturing, group discussion, critical thinking, playing relevant video clips, recapping, and assigning a task for the next session. Some of the sessions were offline. A typical session began with a recitation of some verses from the Quran (2–3 min), followed by a greetings message and presentation of a

dominant verse from the Quran on the topic. Next, a relevant clip or podcast were played (up to 5 min), and then the lecturer made a live voice or video speech about the content of the verse and the clip or podcast (up to 20 min) and answered the students' questions if there were any (10 min). The session ended with a final clip related to the topic (intended to recap the main points; up to three minutes) and assignment of a task to the participants (the assigned tasks were practical as the purpose of the intervention was to encourage the students to use their learning in clinical environments). The students had one week to perform the assigned tasks. At the end of the session, a farewell message, a verse from the Quran, appeared on the screen (God is the best protector and He is the most merciful). The content of the educational sessions was selected and verified by Quran scholars. To collect data, the researchers gave a link to the questionnaires on ePoll to the participants in the control and intervention groups and asked them to complete the scales at the beginning and end of their clinical training. For ethical reasons, the content of the educational intervention was made available to the control group at the end of the study. The resilience scale and the caring behaviors inventory were completed by all participants before and after completing the program.

Ethical Considerations

The participants were assured that all information would remain confidential and that they were free to withdraw from the study at any time. At the end of the study, the content of the education presented to the intervention group was made available to the control group as video files. Written informed consent was obtained from all the participants.

Table 2. A comparison between the pretest and posttest mean scores of the experimental and control groups for resilience and its subscales

Variable	Group	<i>M</i> ± <i>SD</i>		Mann-Whitney <i>U</i> test Results
		Experimental (<i>n</i> = 43)	Control (<i>n</i> = 44)	
Before intervention	Personal competence	18.6 ± 3.5	15.4 ± 2.5	<i>p</i> = .42
	Trust in one's instincts	15.1 ± 3.6	9.1 ± 2.1	<i>p</i> = 1.02
	Positive acceptance of change	10.0 ± 2.2	5.3 ± 2.1	<i>p</i> = .92
	Control	6.1 ± 1.8	6.2 ± 1.7	<i>p</i> = .15
	Spiritual influence	6.9 ± 1.9	15.4 ± 2.5	<i>p</i> = .84
	Total Resilience Score	57.1 ± 5.2	54.6 ± 4.6	<i>p</i> = .62
After intervention	Personal competence	21.4 ± 3.3	15.2 ± 2.9	<i>p</i> < .001
	Trust in one's instincts	17.4 ± 2.7	7.6 ± 1.8	<i>p</i> < .001
	Positive acceptance of change	10.2 ± 2.6	6.7 ± 1.6	<i>p</i> < .001
	Control	6.8 ± 1.9	6.3 ± 1.8	<i>p</i> < .001
	Spiritual influence	7.9 ± 2.1	15.4 ± 1.5	<i>p</i> < .001
	Total Resilience Score	64.2 ± 6.3	53.2 ± 5.3	<i>p</i> < .001

Table 3. A comparison between the pretest and posttest mean scores of the experimental and control groups for caring behavior and its subscales

Variable	Group	<i>M</i> ± <i>SD</i>		Mann-Whitney <i>U</i> test results
		Experimental (<i>n</i> = 43)	Control (<i>n</i> = 44)	
Before intervention	Respectfulness	5.81 ± 0.72	5.3 ± 0.82	<i>p</i> = .35
	Assurance of human presence	17.1 ± 2.4	15.1 ± 1.8	<i>p</i> = .43
	Positive connectedness	13.0 ± 1.0	12.4 ± 1.4	<i>p</i> = .74
	Professional knowledge and skills	25.0 ± 0.3	24.3 ± 3.2	<i>p</i> = .62
	Deference to others' experiences	10.0 ± 1.2	9.9 ± 1.1	<i>p</i> = .38
	Total Caring Behavior Score	70.9 ± 2.2	68.0 ± 1.6	<i>p</i> = .60
After intervention	Respectfulness	7.60 ± 1.0	5.2 ± 0.84	<i>p</i> < .001
	Assurance of human presence	21.6 ± 3.2	15.2 ± 10.2	<i>p</i> < .001
	Positive connectedness	15.2 ± 2.5	12.3 ± 1.8	<i>p</i> < .001
	Professional knowledge and skills	31.9 ± 5.1	24.2 ± 3.1	<i>p</i> < .001
	Deference to others' experiences	12.3 ± 2.2	8.8 ± 3.3	<i>p</i> < .001
	Total Caring Behavior Score	88.2 ± 3.5	66.2 ± 2.3	<i>p</i> < .001

Data Analysis Procedures

The collected data were analyzed using SPSS v. 16. The Kolmogorov-Smirnov test was used to assess the normality of the data. The results of this test showed that the variables were not normal in the pretest and posttest of each group and in the two control and intervention groups. The Mann-Whitney *U* test was used to compare the two study groups in terms of the independent variables and the Wilcoxon test was used to compare the two groups' pretest and posttest scores. To compare the frequencies between the two study groups, the researchers used the χ^2 test. The level of significance was set at 0.05.

Results

The pretest total resilience mean scores (the Mann-Whitney *U* test) of the nursing students in the intervention and control groups were 57.1 ± 5.2 and 54.6 ± 4.6 , respectively, which were not significantly different ($p = .62$). Thus, the two groups were homogeneous in terms of their pretest scores and the difference between their posttest mean scores was due to the intervention (education in the teachings of the Quran and other religious matters). After the intervention, the total resilience mean scores of the nursing students in the intervention and control groups were 64.2 ± 6.3 and 53.2 ± 5.3 , respectively, which showed a statistically significant difference ($p < .001$). The results also showed statistically significant differences between the two groups' posttest mean scores in all the subscales of resilience ($p < .001$): There was a significant increase in the intervention group's mean scores as compared to the control groups', which indicated that the educational

intervention was effective in improving resilience in the nurses (Table 2).

The pretest total caring behavior mean scores (the Mann-Whitney *U* test) of the nurses in the experimental and control groups were 70.9 ± 2.2 and 68.0 ± 1.6 , respectively, which were not significantly different ($p = .60$). Thus, the two groups were homogeneous in terms of their pretest mean scores for caring behavior and its subscales. However, after the intervention, the total caring behavior mean scores of the intervention and control groups were found to be 88.2 ± 3.5 and 66.2 ± 2.3 , respectively, which showed a statistically significant difference ($p < .001$). The caring behavior mean score of the nurses in the intervention group was significantly higher than that of the nurses in the control group. Also, with regard to all the subscales of caring behavior, there were statistically significant differences between the two groups' mean scores ($p < .001$): There was a significant increase in the intervention group's mean scores as compared to the control groups, which indicates that the educational intervention was effective in enhancing caring behavior in the nurses (Table 3).

Discussion

The findings of the study showed that the teachings of the Quran were effective in increasing resilience and caring behavior in nursing students amid crises such as the COVID-19 pandemic. The present study was conducted at the third peak of the coronavirus infection in Iran. Since the onset of the pandemic, nursing students who were in practice in hospital units assigned to care of COVID-19 patients showed great dedication and self-sacrifice despite their lack of information about the infection.

In Al-Ma'idah, verse 32, God says, "... whoever saved a human life shall be regarded as having saved all mankind." The intervention used in the present study showed that the teachings of the Quran proved effective in increasing resilience and all its subscales in the nursing students. Resilience is defined as a personality trait which facilitates coping with crises, making an effort to accomplish one's goals, having hope, and gaining control over difficult situations (Connor & Davidson, 2003). The findings of this study point to the significance of Islamic teachings in dealing with major crises such as the COVID-19 pandemic (Annalakshmi & Abeer, 2011).

In the nursing profession, resilience is one of the factors that increases endurance (Foster et al., 2019). For Muslim healthcare workers, resilience can be enhanced by praying, salat, reading, and listening to the Holy Quran. Based on the findings of this study, hospitals with Muslim healthcare workers can provide time and facilities to pray the Holy Quran to improve resilience at work (Malekiha & Olyanasab, 2021). Research showed that increased levels of resilience could be effective in retaining nurses and keeping them on the job (Yu & Lee, 2018).

As one of the most crucial jobs in hospitals, nursing involves direct contact with patients and thus plays a significant part in patients' recovery and satisfaction. Accordingly, nurses' mental peace and resilience can deeply influence their manner of providing care and, by extension, the quality of care provided by them (Dhungana et al., 2022).

The findings of the present study also showed that the teachings of the Quran about patience and resilience could increase caring behavior in nursing students. Caring behavior is a skill which can be acquired and the ultimate goal of education is learning and modifying behaviors. Application of the teachings of the Quran in the education and clinical training of nursing students can enhance caring behavior in this population (Hatami & Shekarchizadeh, 2022).

In the present study, the researchers addressed the important issues of therapeutic communication, interaction with patients, compassion-based care, respect, and positivity from the perspective of the Quran. The findings of Tavan study (2011) suggest that the familiarity with Quran workshop has been effective in reducing mental health scores and somehow, in improving the nurses' mental health status. On the other hand, participation in the familiarity with Quran workshop can improve the nurses' mental health and improving their performance in patient care (Tavan & Jahani, 2011). Another study put forth that if nurses will apply the Quranic guidelines in management, the existing gaps and problems would be minimized which may lead to improvement in quality of health services (Mohebbi et al., 2016).

Spiritual training helps a nurse to provide holistic care for patients and their families. Therefore, managers and policymakers should use guidelines from Quran and Hadis to help nurses become more spiritually sensitive as well as to meet spiritual needs of patients (Akbari et al., 2022). Jalili et al. (2020) in their study on the 'effects of spirituality training on the moral sensitivity of nursing students' concluded that the spirituality education increased the moral sensitivity of nursing students. This provides a new perspective on the role and effect of spirituality education on the ethical sensitivity of nursing students (Jalili et al., 2020).

The results of a study by Bachtiar et al. (2023) showed that education on caring behaviors contributes to nursing students' perception of care (Bachtiar et al., 2023). Given the important role of nurses in providing quality of care the need for a transformation in teaching contents in their curriculum has become more apparent (Kabir et al., 2018).

Limitations and Implications for Research

One of the limitations of the present study is its cross-sectional design. It is suggested that to measure the long-term impact of the teachings of the Quran on nursing students' resilience and caring behaviors, future research use a longitudinal approach with long follow-up periods. In addition, to increase the generalizability of the results, random sampling and a larger sample size are suggested. Another limitation was that we used paired t-test to compare the mean before and after scores of each group. We also used the independent t-test to compare the mean between two intervention and control groups. This may cause a type I error. Finally, the present study was conducted exclusively on undergraduate nursing students. The authors suggest that future research measure the impact of interventions based on the teachings of the Quran on postgraduate students in other fields of medical sciences.

Finally, we conducted this study for the first time to investigate the impact of Quranic teachings on a population of nurses who are facing psychological stress, especially during the COVID-19 period. This study can be applied to a larger sample size with a longer intervention period in normal conditions and other crises. It can also be used for other medical and paramedical professional groups.

Implications for Nursing Practice

One of the objectives of clinical training programs for nursing students is to equip them with the science and art

of nursing, and the students should be introduced to the concept of resilience and techniques for enhancing resilience in patient care. Evidently, higher levels of resilience correlate with better caring behaviors and ultimately improve the quality of nursing care (Saged et al., 2020).

Based on the findings of this study, it is necessary to focus on the cultivation of nurses' spirituality to improve the quality of caring behaviors. Leaders or health organizations are required to establish and sustain multifaceted strategies to improve nurse's caring behaviors. This can be done by adding Quranic training programs in nursing curriculum. By improving nursing students' resilience and caring behavior with patients, clinical learning environments may increase the quality of caring behaviors and, consequently, the quality of nursing care.

Conclusion

Findings illustrate how health organizations and their leaders may improve nurses' resilience and caring behaviors by integrating religious teachings in their training programs. More specifically, results provide insights into the advantages of including Quranic teachings in nursing education as these may foster resilience and caring behaviors that are essential in providing quality of nursing care especially amid health crises.

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Conflict of Interest

The authors declare that they have no conflict of interest.

Publication Ethics

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

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Appendix

Table A1. The content of the educational sessions

Week	Session	Content	Verses from the Quran used to elaborate on the topic
1	1	Introductions, informing the participants of the objectives of the study, having the participants complete the questionnaires (online)	Al-Ahzab (verse 35), Al-Rad (verse 28), Al-Talaq (verse 3), Al-Zumar (verse 36), Ghafir (verse 44), Yusuf (verse 64)
	2	Introduction to the concept of belief in God and resilience from the perspective of the Quran (online) The strategy of comparison to increase one's resilience from the perspective of the Quran (offline)	Al-Layl, Al-Insan (verse 13), Yusuf (verse 11) Al Imran (verse 8), Al-Qamar, Al-Sajdah (verse 40), Al-Qasas (verse 54), Al-Insan (verse 76), Yusuf (verse 64), Al-Jinn (16), Al-Isra (verse 61), Al-Baqara (verse 249)
2	3	Introduction to the virtues and personal qualities of those who were patient in human history as mentioned in the Quran (online)	Al-Talaq (verse 7), Al-Saff (verse 4), Al-Araf (verse 55), Al-Isra (verse 110), Al-Anbiya (verse 83), Al-Qasas (verse 24), Yusuf (verse 255), Al-Baqara (verses 64, 256, 257), Al-Sajdah (verse 7), Al-Rad (verse 28), Ar-Rum (verse 30), Ta ha (verse 124), Al-Zumar (verse 23), Al-Anbiya (verse 83), Al-Araf (verse 55), Al-Isra (verse 110), Yusuf (verse 64)
	4	The impact of praying on having more resilience and displaying proper caring behaviors (offline)	Al-Nahl, Al-Ma'idah (verse 32), Al-Naml (verse 59), Ya Sin (verse 58), Al Imran (verse 34), Fatir (verse 106), Al-Ma'idah (verse 119), Al-Baqara (verse 69), Al-Kahf (verse 31), Al Imran (verse 107), Muhammad (verse 15), Al-Hujurat (verse 13)
3	5	Suffering and resilience, the medicine of love from the perspective of the Quran (online)	Al-Taghabun, Ad-Dukhan (verse 32), Yusuf (verse 86), Fuṣṣilat (verse 34), Ibrahim (verse 4), Al-Baqara (verse 165), Al-Insan, Yusuf (verse 33), Al-Qamar (verse 55)
	6	The role of trust and friendship in increasing one's resilience and providing proper care and the role of authorities in maintaining healthcare professionals' peace from the perspective of the Quran (offline)	Adh-Dhariyat (verse 56), Al-Insan (verse 8), Yusuf (verse 33), Ta Ha (verses 25, 26, 29, 31, 32), Al-Fatiha, Al Imran (verses 31-32), Al-Nisa (verse 69), Al-Muddaththir (verses 38-47), Al-An'am (125), Al-Baqara (verse 195), Al-Ma'idah (verse 32), Al-Tawbah (verse 40)
4	7	Proper interaction with patients and the significance of therapeutic communication from the perspective of the Quran (online)	Al-Ma'idah (verses 17-18), Al-Nur (verse 45), Ya Sin (67), Al-Tawbah (verses 128, 103), Al-Isra (7), Al-Ahqaf (35), Al-Baqara (142), Al Imran (106), Abasa (39), Al-Zumar (verse 75), Al Insan (12), Al-Mursalat (27), Yusuf (64)
	8	Confidentiality, inspiring hope in patients, empathy, and compassion in providing quality care to patients from the perspective of the Quran (offline)	Ahqaf (35), Al-Baqara (142), Al Imran (106), Abasa (39), Al-Zumar (verse 75), Al Insan (12), Al-Mursalat (27), Yusuf (64)
5	9	Application of science and knowledge in clinical practice along with examples of good nursing and caring behaviors from the Quran (online).	Al-Isra (verse 9), Al-Zumar (verses 73-75), Yusuf (verse 64), Al-Zumar (verse 36)
	10	Wrap-up of the main points and having the participants complete the questionnaires again (offline)	

Note. The content of each session was designed and prepared by a panel of Quran scholars at Imam Hadi Daraltahfiz (consisting of the manager and other members) and subsequently presented by the staff of Ahsanol-Hadis under the supervision of the researchers in the form of lectures, video clips, podcast, photographs, etc.