Effect of Caring Behavior Based Training Program on Nurses' Culture Competence: A Quasi-Experimental Study

Khalid Hamad Abdulaziz Alsulmi[1], Hala Gabr Mahmoud[2]

[1] Msc of Nursing, King Saud University; Nursing Senior Specialist & Supervisor of Mhodc, Buraydah Central Hospital, Saudi Arabia.

[2] Professor of Nursing Administration, Faculty of Nursing - Mansoura University, Egypt.o

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Abstract:

Background: *Nurses' caring behaviors vary in different conditions and it is influenced by different factors. Cultural competence has become one of the principal foundations of clinical nursing for providing quality care for patients from different cultural backgrounds. When these differences are inadequately cared for by nurses, cultural diversity may lead to maladaptive behaviors, interpersonal conflicts, and miscommunication.* ***Aim:*** *to determine the effect of caring-based training program on nurses' cultural competence and caring behaviors at Buraydah Central Hospital, Saudi Arabia.* ***Method:*** *Quasi experimental research design in all inpatient units at Buraydah Central Hospital, Saudi Arabia on 140 nurses using two tools will be used for data collection in the present study namely, Caring behavior knowledge questionnaire and nurse culture competence scale.* ***Results:*** *there was statistically significant improvement in caring behaviors knowledge level through training program phases. In pretest phase staff nurses' knowledge was unsatisfactory level (84.3%), while in immediately posttest and after 3 months follow up test phases were at satisfactory level (90.7%) and (89.3%), respectively. Before the program, most nurses (57.9%) exhibited a moderate level of caring behaviors, immediately after the training, the number of nurses with a high level of caring behaviors increased to (35.0%) accompanied by a substantial reduction in the low-level group from (33.6%) to (2.9%). At the pre-intervention phase, none of the studied nurses demonstrated a high level of cultural competence (0.0%), with the majority having a moderate level (61.4%) and (38.6%) had low level. Immediately after the training, two thirds of the studied nurses (66.4%) reach a high level of cultural competence and none of them remain at the low level (0.0%). Nurses' overall caring behaviors were positively correlated with their knowledge. Similarly, overall cultural competence*

was positively associated with knowledge, with correlations ranging from pre intervention to post intervention and at follow up. ***Conclusion****: it was concluded that there were highly positive statistically correlations among studied nurses` caring behavior knowledge, perception caring behavior culture competence after implementing training program of caring behavior.* ***Recommendation:*** *Participating in training activities that target culture sensitivity and caring behavior for culturally diverse patients and to develop nurses' culture competence.*

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Keywords: *Caring behavior, Cultural competence, Nursing care, Patient care, Training program.*

Introduction

Caring is the heart an integral part of the provision of health services. The practice of care (Alikari, et al., 2024) assists nurses in promoting the health and dignity of patients and facilitating self-actualization. Caring behavior is essential in nursing practice, integrating science, art and humanism. The term caring conduct encompasses the actions and attitudes of healthcare personnel demonstrating concern for the well-being of patients, including active listening, emotional support, and respectful interactions (Almutairi, et al., 2025). (Ansariniaki, et al., 2025). (Figure 1).

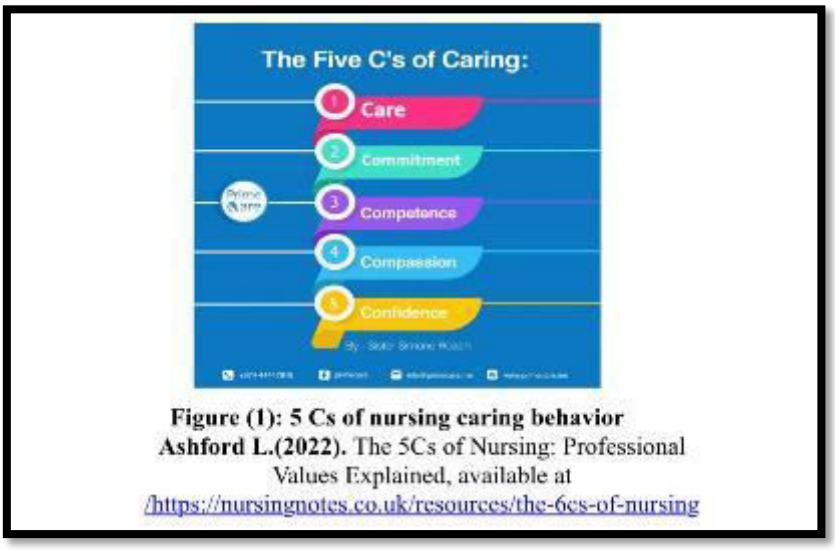


Figure (1): 5 Cs of nursing caring behavior
Ashford L.(2022). The 5Cs of Nursing: Professional Values Explained, available at /https://nursingnotes.co.uk/resources/the-6cs-of-nursing

Caring behaviors encompass two aspects, namely instrumental (technical and physical care) and expressive (psychosocial support) dimensions (Zahaki, et al., 2023). The technical aspect emphasizes meeting patients' physical and treatment needs through some means like treatment methods, monitoring the physical environment, education, informing, and problem-solving (Almutairi, et al., 2025). (Albano, et al., 2025). (Figure 2).

Figure (2): 10 creative factors of Watson's Theory

Dropstat (2024).How Caring in Nursing Influences Patient Outcomes. https://dropstat.com/blog/healthcare-/management/caring-in-nursing

Furthermore, with the increase in globalization and human mobility between countries, societies are becoming multicultural. As a result, nurses are increasingly caring for patients with health beliefs, languages, and life experiences that are very different from their own. Therefore, the provision of care with mutual respect in a multicultural environment is very important, especially for nurses who provide individual care for patients in the health field (Akman, et al., 2026).

The concept of it has been identified as one of the main foundations of delivering quality care to patients from diverse cultural backgrounds in clinical nursing. Cultural competence in nursing is defined as the ability of a nurse to provide effective, safe, and equitable care to individuals from diverse cultural and ethnic backgrounds (Nazari, et al., 2025). The concept of cultural competence embraces cultural awareness, cultural knowledge, cultural sensitivity, cultural skill, cultural proficiency, and dynamicity. Competence means that nurses understand and respect cultural differences and provide culturally competent care. The provision of culturally competent care by nurses has the potential to improve the quality of care, improve patient satisfaction, and reduce racism in healthcare, all of which leads to better health outcomes among culturally diverse patients (Aldkhayel& Alharbi, 2025) (Figure 3).

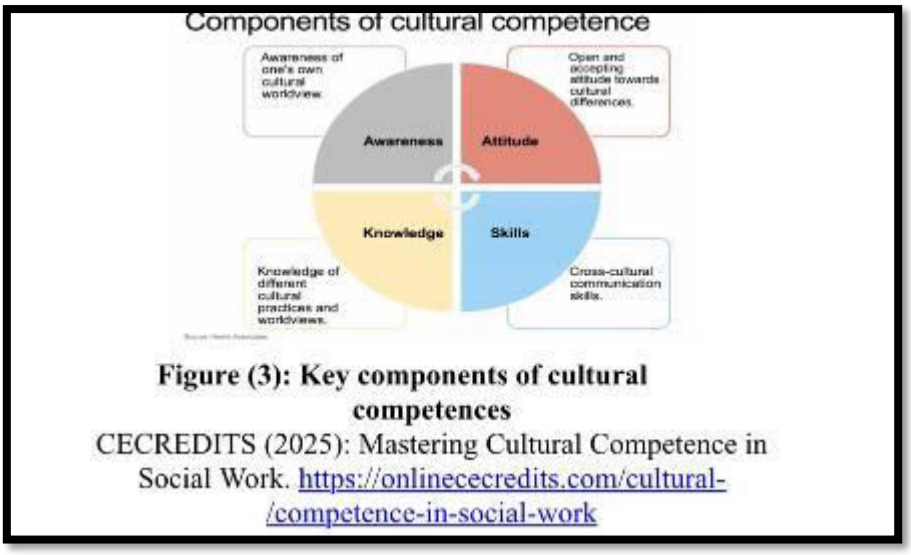


Figure (3): Key components of cultural competences

CECREDITS (2025): Mastering Cultural Competence in Social Work. https://onlinececredits.com/cultural-/competence-in-social-work

Competence is not something you are born with; it development that can be enhanced through education, self-reflection, and professional responsibility. Competence includes skills (e.g. patience, adaptability), attitudes (e.g. respect, tolerance), motivations (e.g. curiosity for cultures) and emotional abilities (e.g. cultural sensitivity, empathy) (Červený, et al., 2022). So, nurses need to get qualified theoretical education in intercultural nursing (Theodosopoulos, et al., 2025).

Significance of study

Caring is a fundamental concept for understanding humans as individuals and social beings (Tesema, et al., 2025). However, accelerating globalization and demographic changes in society and the incidence of patients from different cultural backgrounds are factors that affect the quality of nursing care. (Alharbi, et al., 2025). The increasing cultural diversity in healthcare in gulf countries, including Saudi Arabia, has highlighted the need to enhance nurses' cultural competence (Aldkhayel& Alharbi, 2025). (Nazari, et al., 2025). Training is one of the strategies to improve nurses' performance of culturally competent care. (Akman, et al., 2026). Therefore, this study was conducted to evaluate the effect of caring behavior based training program on nurses' culture competence at Buraydah Central Hospital, Saudi Arabia

Aim of the study

This study aimed to determine the effect of caring-based training program on nurses' cultural competence and caring behaviors at Buraydah Central Hospital, Saudi Arabia.

Research hypotheses:

The specific research hypotheses are:

H1. knowledge regards nurses' knowledge of caring improves after implementing caring-based training program at Buraydah Central Hospital, Saudi Arabia

H2. cultural competence improves after implementing caring-based training program at Buraydah Central Hospital, Saudi Arabia

H3. Caring behaviors as perceived by nurses improves after implementing caring-based training program at Buraydah Central Hospital, Saudi Arabia.

Methods:

Design:

Quasi experimental (pretest–posttest) research design was used to achieve the aim of this study. **(Miller, Smith & Pugatch, 2020).**

Setting:

This study conducted in all inpatient units at Buraydah Central Hospital, Saudi Arabia that affiliated to Qassim Health Cluster

Participants:

A convenient sample (140) nurse working in all inpatient units at the previous mentioned study setting

Tools of data collection

I. Caring Behavior Knowledge Questionnaire

It consists of three parts:

The first part: was used to identify personal characteristics of nurses as: age, gender, educational qualification, years of experience, and unit of work.

The second part was developed by researcher based on reviewing literature (**Elahi, et al., 2021& Susanti, et al., 2022& Bachtiar, et al., 2023)** to assess level of nurses' knowledge regards caring and culture competence. It composed of 24 multiple-choice questions concerning the awareness of nurses about caring and culture competence. The questions were score as "1" for correct answer, and "zero" for incorrect answer.

Scoring system: The total scores of knowledge were summed up (ranges from 0-20) where the higher score indicating better level of knowledge. The total scores categorized based on cut of point as following**: -**

- Unsatisfactory level <60 % (<15).
- Satisfactory level ≥60 % (15-24).

The third part is related to caring behaviors assessment was developed by Duffy (1992). It was adapted and modified by the researcher to determine the caring nurse–patient relationships of caring as perceived

by nurses. It includes 27-item that categorized under 8 dimensions namely; encouraging manner attentive reassurance (8 items), human respect (7 items), appreciation of unique meanings (4 items), enhancing family access and understanding (2 items), providing information (one item), Attending to basic human needs (2 items), Appreciation of unique meanings (2 items), and Encouraging manner Humor (one item). Response of participants were asked to five-point Likert scale (5=strongly agree, 4=agree, 3=uncertain, 2=disagree, 1=strongly disagree).

Scoring system: The total scores of caring behaviors were summed up (ranges from 27-135) where the higher score indicating the better caring behavior. The total scores categorized based on cut of point as following**: -**

- Low level of caring behaviors if total score <50 % (27-67).
- Moderate level of caring behaviors if total scores 50-75% (68-101).
- High level of caring behaviors if total scores > 75% (102-135).

II. Nurse Cultural Competence Scale (NCCS)

It was developed by Gözüm, Tuzcu, & Kirca, (2016) to assess culture competence among nurses. It includes 20 items that categorized under three subscales namely; cultural skills (12 items) that refer to the nurses' ability to carry out the cultural assessment for client, communicate with client by using resources and provide appropriate care without individual prejudice, cultural knowledge (6 items), that refers to the nurses' knowledge of obtaining information about diverse groups and their culture, such as health beliefs, cultural values; nine items measured this domain. and cultural sensitivity of nurses (2 items) that refers to the nurses' appreciation of the client's beliefs, valuing their culture and respecting its influence on client's behaviors; eight items measured this domain. Participants were asked to score each item on a five-point scale strongly disagree (1), disagree (2), not sure (3), agree (4), and strongly agree (5)

Scoring system: The total scores of culture competence were summed up (ranges from 20-100) where the higher score indicating the better culture competence. The total scores categorized based on cut of point as following**:-**

- Low level of culture competence if total score <50 % (20-49).
- Moderate level of culture competence if total scores 50-75% (50-75).
- High level of culture competence if total scores > 75% (76-100).

Validity and reliability

Study tools were tested for its face and content validity by five experts (three professors and two assistant professor) in the field of Nursing Administration. Based on the opinion of panel of expertise minor modifications were done (paraphrasing for some items and arranging it into domains) and then the final form was developed and used for data collection. The internal consistency, as indicated by Cronbach's alpha, was 0.809 for the caring behavior knowledge questionnaire, 0.918 for the caring behavior scale, and 0.935 for the nurse culture competence scale.

Pilot study:

A pilot study was conducted before performing the main study and before beginning data collection. Pilot study was carried out on 14 staff nurses on (10% of the total study sample) selected randomly to check and ensure the clarity and applicability of the tools, test clearness of the language and calculated the duration required to determine the time needed to fill-in questions. Participants in the pilot study was not included in the research.

Ethical consideration:

Prior study conduction, approval was obtained from Research Ethics Committee of Faculty of Nursing, Mansoura University and another approval was obtained from the director of Buraydah Central Hospital, Saudi Arabia after explanation of the purpose of the study and the schedule of data collection.

Data collection:

The collection of data and implementation of the training program was carried out from beginning of November 2024 to end of July 2025.

- The pre intervention (preprogram) phase lasted about two months from November 2024 until the end of December 2024. The researcher presented all the time of data collection three days a week (Saturday, Wednesday and Thursday) during the morning and afternoon shift (from 9.00 AM to 3.00 PM) for clarification, as well as distribution of data collection questionnaire (Caring behavior knowledge questionnaire and nurse culture competence scale) at the end of shifts
- Following the completion of the surveys, the training program was launched by researcher. The time plan of the program was implemented over the period start of January 2025 until the end

of April 202 .it 8 hours distributed as the following: four sessions for each group every session (2) hour.

Table (1): Time plan and distribution of the training program sessions among the studied groups.

Weeks	First week	Second week	Third week	Fourth week	Total number for each group	Total hours
Sessions	**First session (.hrs 2)**	**Second session (.hrs 2)**	**Third session (.hrs 2)**	**Fourth session (.hrs 2)**		
Saturday	Group A	Group A	Group A	Group A	staff 35 nurses	.hrs 8
Sunday	Group B	Group B	Group B	Group B	staff 35 nurses	.hrs 8
Tuesday	Group C	Group C	Group C	Group C	staff 35 nurses	.hrs 8
Wednesday	Group D	Group D	Group D	Group D	staff 35 nurses	hrs 8
Total	**staff nurses 140**					
.32 hrs (4group *8 hours)						

Source: Present study, Buraydah Central Hospital, 2025.

Table (2): Content of the caring behavior training program sessions (part 1)

Specific objective	Time (min)	Teaching / learning activities	Media use	Methods of evaluation
State the objectives of – the current training program	15	Discussion	Data show Video &	Interaction during discussion feedback (verbal and nonverbal) pre & post test
Know the program – schedule	30	Group Discussion lecture &	Data show Video &	
Display the contents of - the program	30	Discussion	Data show Video &	
Fill out the pre-test – questionnaires related to caring behavior and culture competence	30	lecture	Questionnaire	
Summary –	15	Discussion		

Source: Present study, Buraydah Central Hospital, 2025.

Table (3): Content of the caring behavior training program sessions (part 2).

Specific objective	Time (min)	Teaching / learning activities	Media use	Methods of evaluation
Define caring behavior in – .nursing	15	Discussion	Data show Video &	Interaction during discussion feedback (verbal and nonverbal) pre & post test
Discuss the basic goals of – .nursing care behavior	30	Group Discussion lecture &	Data show Video &	
Discuss the Standards of – nursing care conduct	30	Group Discussion lecture &	Data show Video &	
Enumerate the benefits of – applying nursing care behavior	15	Group Discussion	Data show	
Identify the obstacles – affecting effective nursing care behavior	15	lecture	Data show	
Summary –	15	Discussion		

Source: Present study, Buraydah Central Hospital, 2025.

- **Statistical evaluation:**

Data entry and statistical analysis was performed by (SPSS) version 27 and Microsoft Excel version 2016 and appropriate statistical test will be used.

Table (4): Personal characteristics of the studied nurses at Buraydah Central Hospital (n=140).

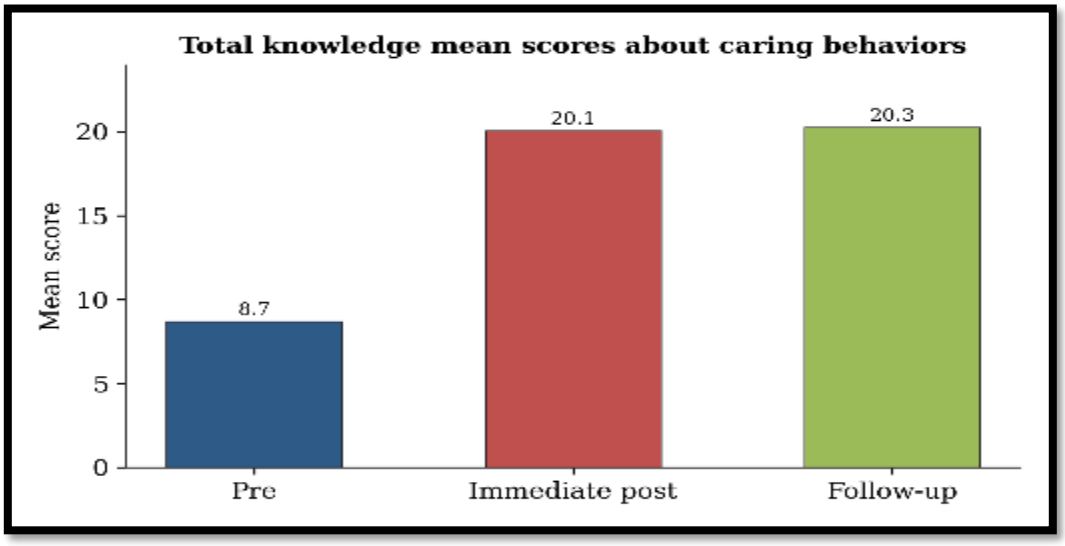
Personal Characteristics	No	%
Age in years:		
• 20 – 30	56	40.0
• 31 – 40	64	**45.7**
• > 40	20	14.3
Mean ± SD	**33.62 ± 6.89**	
Gender:		
• Male	28	20.0
• Female	112	**80.0**
Marital status:		
• Single	36	25.7

• Married	102	**72.9**
• Divorced	1	0.7
• Widow	1	0.7
Educational qualification:		
• Diploma of Nursing	21	15.0
• Bachelor of Nursing	113	**80.7**
• Master/Doctorate Degree of Nursing	3	2.1
• **Other**	3	2.1
Experience in years:		
• 1 – 5	49	**35.0**
• 6 – 10	46	32.9
• > 10	45	32.1
Mean ± SD	***7.54 ± 3.72***	
Unit of work		
• Medical	46	**32.9**
• Surgical	45	32.1
• Emergency	28	20.0
• ICU	21	15.0
Attending training courses		
• Yes	81	75.9
• No	59	42.1

Source: Present study, Buraydah Central Hospital, 2025.

Table (4) presents the personal characteristics of the studied nurses at Buraydah Central Hospital. Nearly half of the studied nurses (45.7%) were between 31 and 40 years old, with a mean age of 32.08 ± 5.77 score. The majority of the studied nurses were female (80.0%) and married (72.9%). Regarding educational qualifications of the studied nurses, most nurses (80.0%) held a bachelor's degree in nursing. In terms of experience, (35%) had 1–5 years of work experience. Additionally, (32.9%) were working in medical departments. More than half of the studied nurses (57.9%) reported attending training courses related to caring behaviors.

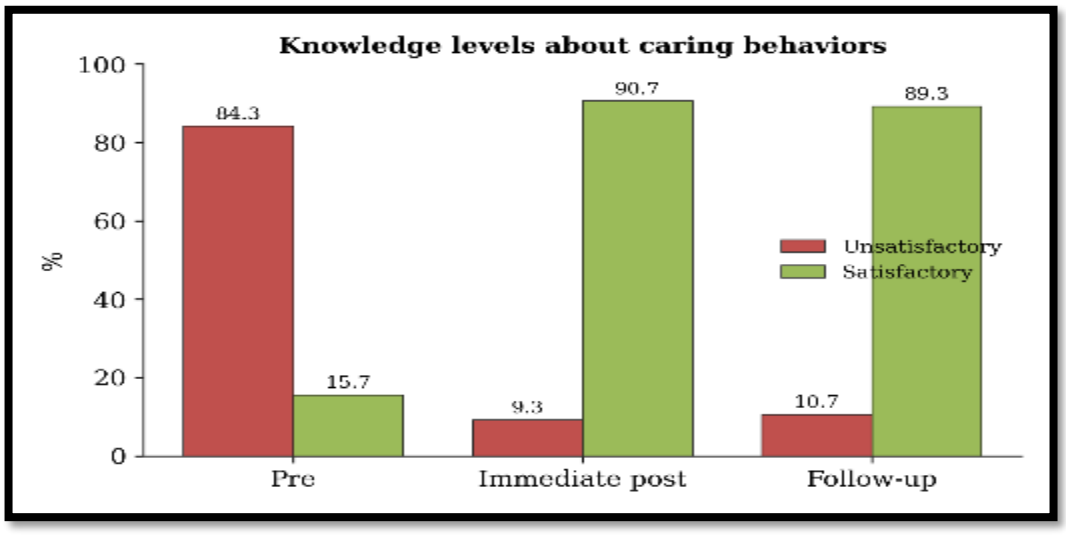
Figure (4): Total knowledge mean scores of the studied nurses about caring behaviors (n=140)



Source: Present study, Buraydah Central Hospital, 2025.

Figure (4) illustrates total knowledge mean scores of the studied nurses about caring behaviors throughout different phases of the training program. There was statistically significant improvement in nurses' mean scores about caring behaviors knowledge. It showed that total mean score of nurses' knowledges regarding caring behaviors at pretest phase is 8.71 and improved at immediately posttest and after 3 months follow up test phase to 20.06 and 20.26, respectively.

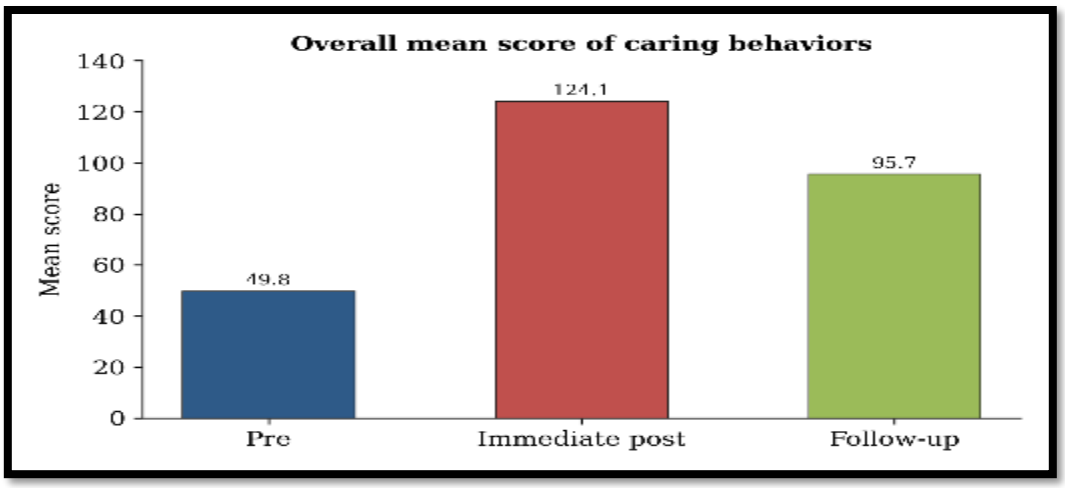
Figure (5): Knowledge levels of the studied nurses about caring behaviors (n=140)



Source: Present study, Buraydah Central Hospital, 2025.

Figure (5) illustrates levels of the studied staff nurse's knowledge caring behaviors. It showed that there was statistically significant improvement in caring behaviors knowledge level through training program phases. In pretest phase staff nurses' knowledge was unsatisfactory level (84.3%), while in immediately posttest and after 3 months follow up test phases were at satisfactory level (90.7%) and (89.3%), respectively.

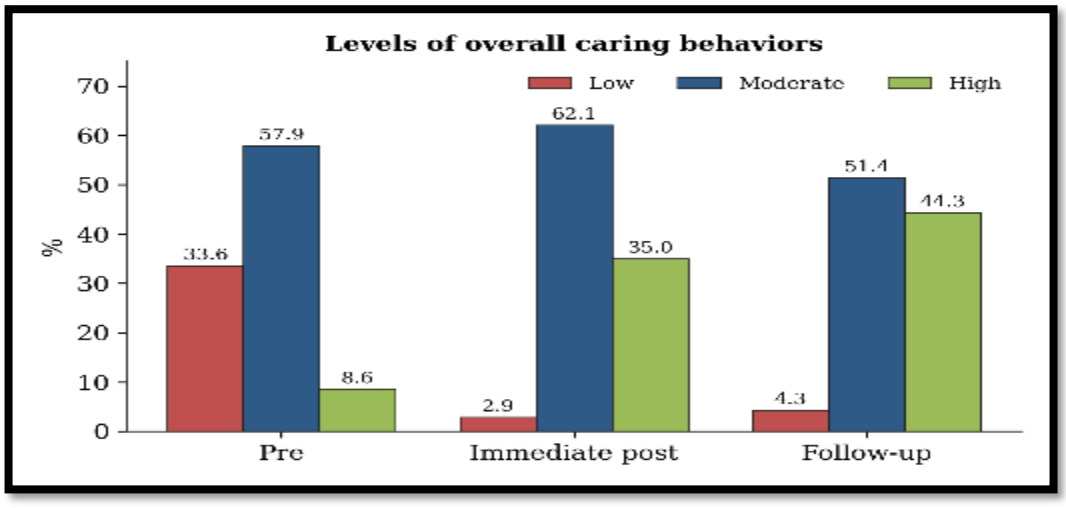
Figure (6): Overall mean score of caring behaviors (n=140)



Source: Present study, Buraydah Central Hospital, 2025.

Figure (6) elucidates the overall mean score of caring behaviors as perceived by the studied nurses. This figure reveals that immediately after the intervention, it increased from 49.81 at the pretest to 124.11 at the immediate posttest. Although a slight decline is noted at the follow-up phase 95.69.

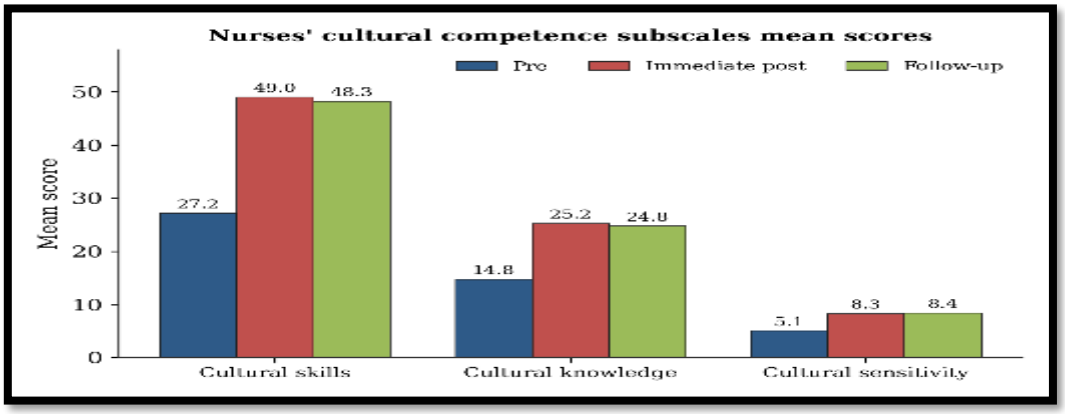
Figure (7): Levels of overall caring behaviors as perceived (n=140)



Source: Present study, Buraydah Central Hospital, 2025.

Figure (7) show levels of overall caring behaviors as perceived by the studied nurses. Before the program, most nurses (57.9%) exhibited a moderate level of caring behaviors, while only (8.6%) demonstrated a high level. Immediately after the training, the number of nurses with a high level of caring behaviors increased to (35.0%) accompanied by a substantial reduction in the low-level group from (33.6%) to (2.9%). At the follow-up phase, the high level group further increased to (44.3%) while the low level group remained low (4.3%).

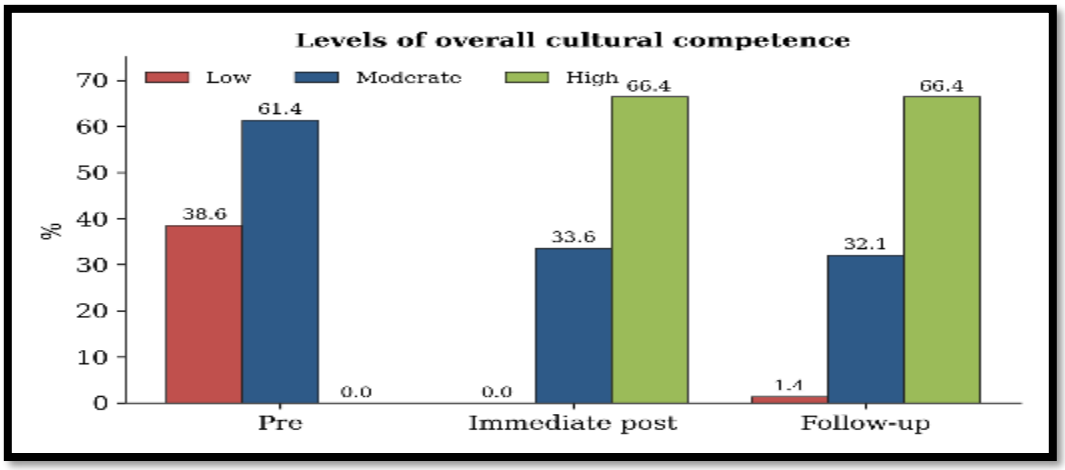
Figure (8): Overall mean scores of nurses' cultural competence subscales (n=140)



Source: Present study, Buraydah Central Hospital, 2025.

Figure (8) explains the overall mean score of nurses' cultural competence subscales as perceived by the studied nurses throughout. This figure shows that the mean score of nurses' cultural competence increased from 47.06 at the pretest to 82.54 at the immediate posttest. However, the mean score become 81.54 at the follow-up phase.

Figure (9): Levels of overall cultural competence as perceived (n=140).



Source: Present study, Buraydah Central Hospital, 2025.

Figure (9) shows levels of overall cultural competence through training program phases. At the pre-intervention phase, none of the studied nurses demonstrated a high level of cultural competence (0.0%), with the majority had a moderate level (61.4%) and (38.6%) had low level. Immediately after the training, two thirds of the studied nurses (66.4%) reach a high level of cultural competence and none of them remaining at the low level (0.0%). At the three-month follow-up phase

Table (5): Correlation between total knowledge scores regarding caring behaviors, total caring behaviors score, and total cultural competence score (n=140).

The study variables	Nurses ' total knowledge regarding caring behaviors					
	Pre		Post		Follow-up	
	r	p-value	r	p-value	r	p-value
Overall caring behaviors	0.220	0.009**	0.407	< 0.001**	0.422	< 0.001**
Overall cultural competence	0.298	0.005**	0.309	< 0.001**	0.345	< 0.001**

Source: Present study, Buraydah Central Hospital, 2025.

Table (5) displays correlation between total knowledge scores regarding caring behaviors, total caring behaviors score, and total cultural competence score through training program phases. Nurses' overall caring behaviors were positively correlated with their knowledge, showing a small but significant correlation. Similarly, overall cultural competence was positively associated with knowledge, with correlations ranging from r = 0.298 (p = 0.005) pre intervention to r = 0.309 (p < 0.001).

Discussion

Improving patient safety in the face of limited resources and rising expectations for high-quality healthcare services are regarded as major challenges for healthcare organizations. Furthermore, healthcare organizations must become more efficient and highly productive due to the constant updating and modification of healthcare laws and standards, such as hospital accreditation

requirements and quality of care regulations (Fitzgerald, 2025). The finest care for patients can only be provided by nurses who have a positive outlook, enjoy what they do, and find fulfillment in other facets of their daily life. Because of this, it's critical to closely monitor a nurse's quality of life from a personal and professional standpoint (Hermanto, Srimulyani, & Pitoyo, 2024).

Nurses are professionals with the capacity, accountability, and power to deliver nursing care. Accordingly, they must have high levels of emotional intelligence, which will enable them to form crucial relationships that support the delivery of high-quality care (Raeissi et al., 2024).

A crucial component of nursing that has a big impact on patient care and results is compassionate behavior. A key component of nursing is caring behavior, which includes the behaviors, attitudes, and mannerisms that nurses display when interacting with patients. It is the behavior that shows patients care, safety, and concern. Building therapeutic relationships and guaranteeing high-quality service need compassionate behavior. It is distinguished by both expressive behaviors, which include emotional support and empathy, and instrumental behaviors, which entail technical skills and procedures (Devi, & Banerjee, 2024). A person who possesses the necessary information, attitudes, and actions to function well in many cultural contexts is said to be culturally competent. Training programs are one possible way to improve nurses' cultural competency, which is thought to be one of the elements (Osmancevic et al., 2025).

The current study's findings showed that prior to the introduction of the training program, the majority of the nurses under investigation had inadequate knowledge of caring behaviors. This could be because most of the nurses under study were under time constraint to attend hospital workshops because of different deadlines and work responsibilities, which prevented them from attending prior training programs about caring behaviors. Additionally, nurses should get continuous education on caring behaviors, and nursing educators should give cultural care education in nursing curricula particular emphasis.

On the other hand, the post-intervention program demonstrated a highly significant increase in knowledge of caring behaviors. This may be explained by the high level of comprehension and focus of the studied nurses, their capacity to absorb new information, and their perception of the significance of caring behaviors, which led to changes

in their knowledge about caring behaviors following the implementation of the training program. According to Labrague & Obeidat (2025), caring conduct includes a variety of behaviors and attitudes, such as concern to patients' needs, emotional support, active listening, and a dedication to reducing suffering. The emotional and psychological support that nurses provide to patients and their families goes beyond their physical duties. This conduct improves patient satisfaction, builds trust, and leads to better health results.

The study's results are consistent with those of Fadaeinia et al. (2022), who found that roughly 75% of nurses had inadequate knowledge of caring behaviors prior to training program implementation in a study aimed at enhancing cultural competence and self-efficacy among postgraduate nurses. Additionally, Alikari et al. (2022) looked at how nurses and patients perceived caring behaviors and discovered that over half of nurses had inadequate knowledge regarding caring behavior.

Because it directly affects patient outcomes, improves healthcare quality, and creates a compassionate environment, caring behavior among nurses is important on a global scale. The majority of healthcare facilities are made up of nursing divisions, which deal directly with patients and competently provide all necessary nursing care. In order to effectively support patient safety, health, and wellbeing while upholding professional tasks and obligations, nurses require skills including emotional intelligence and compassionate behaviors (Ramadan, Mahmoud, & Helaly, 2025).

The current study's findings showed that, prior to the execution of the training program, over half of the nurses under investigation had a moderate view of caring conduct. The number of nurses exhibiting high levels of caring behaviors rose immediately following the training. Additionally, the results of this study showed that more than half of the study nurses exhibited high levels of caring behaviors during the follow-up phase. This might be because nursing programs must incorporate the idea of patient-centered care in order to raise the standard of compassionate behavior. Additionally, nurses' caring behaviors should be the focus of specific interventional programs and continuing education courses.

The study's results are consistent with those of Ahmed, Saifan, Dias, Subu, Masadeh, & AbuRuz (2022), who conducted a study on the degree and predictors of critical care nurses' caring behaviors and discovered that, on average, less than half of the sample

had "good" caring behaviors. Among nurses who were working in Emirati intensive care units, as well as nearly half of them had good caring behaviours, compared to less percentages among Jordanian intensive care unit nurses.

Once more, current study's findings showed a significant decrease in the low-level immediately following the implementation of the training program. This finding was consistent with a study by Ahmed et al. (2022) that evaluated the degree and determinants of caring behaviors among critical care nurses and discovered that almost half of the nurses had low levels of caring behaviors. Additionally, the majority of participants demonstrated moderate levels of caring performance.

The results of the current study showed that over half of the nurses under study had a moderate level of cultural competence in the pre-phase of the training program. From the perspective of the researcher, this finding suggests that cultural training is necessary to improve the cultural competence of nurses. Additionally, health care leaders should pay attention to the significance of culture and cultural differences among different countries or ethnic groups. Finally, it's important to create an equal and fair nursing environment and encourage nurses to provide critical cultural nursing.

These results were consistent with those of Argyriadis et al. (2022), who included nurses in a study about the self-assessment of health professionals' cultural competence: knowledge, skills, and concepts for optimal health care, and who concluded that all health professions, including nurses, require ongoing, specialized training in cultural competence. Soleimani & Yarahmadi (2023), in a study titled "Cultural competence in critical care nurses and its relationships with empathy, job conflict, and work engagement."

Furthermore, the results of this study showed that the mean score of nurses' cultural competence increased significantly in the immediate post-implementation phase of the training program. This finding was consistent with Sung & Park's (2021) investigation of the impact of a mobile app-based cultural competence training program for nurses: a pre-and posttest design, which found that the total mean score of culture competence among nurses increased significantly after participating in the training program.

Additionally, Gülşen & Kutlu (2024), who examined the efficacy of a training program on perceptions of caring culture among Turkish nurses, found that training programs based on caring can contribute

to improving the perceptions of culture competency among nurses. These results are consistent with Osmancevic et al. (2025), who examined the efficacy of cultural competence interventions in nursing and concluded that education and training can improve the level of nurses; therefore, these findings are consistent with Urbanavičė et al. (2025).

In terms of cultural competency, the current study's findings showed that prior to the training program's introduction, over half of the nurses under investigation had poor cultural competency. These results may be explained by the variables affecting nurses' cultural competency, such as the scarcity of trained educators and the high cost of training, as well as the absence of resources supporting the execution of cultural training.

These results were consistent with those of Sadeghi et al. (2022), who evaluated the association between nurses' cultural competence and adherence to ethical rules and discovered that over half of nurses had low cultural competence. These results aligned with the self-perceived cultural competency of Diaz et al. (2023). About half of participants in a cross-sectional study on nurses' awareness and conduct reported having low levels of cultural competency. These results contrasted with those of Kandemir & Yüksel (2025), who examined the moral sensitivity, cultural competence, and professional values of surgical nurses and discovered that nurses had high levels of cultural competence.

This outcome was consistent with the findings of Zeleke et al. (2024), who examined cultural competence and related variables among nurses employed in public hospitals and came to the conclusion that cultural competence training programs for nurses can greatly improve cultural competence in clinical settings. This result is in line with Chang et al.'s (2024) study, "Evaluation of a hybrid learning module on cultural competence for the postgraduate year of nursing programs in Taiwan," which discovered that the intervention group's post-intervention cultural skills scores were significantly higher.

According to Akkoyun and Tas Arslan (2025), patients who feel understood and cared for are more likely to follow their treatment regimens, feel less anxious, and have better overall health results. Additionally, compassionate behavior strengthens the therapeutic nurse-patient bond by encouraging open communication and trust, both of which are critical for providing quality care. It is easier to find

solutions to improve the quality of care provided by nurses when one understands the relationship between caring behavior and other elements, such as spiritual intelligence and work stress. (Situmorang, Pritama, & Darajat, 2025).

The results of the current study showed a positive correlation between the study nurses' knowledge and their compassionate behavior during training program phases at Buraydah Central Hospital. The current study's findings are consistent with a study by Kibret et al. (2022) that examined the degree and predictors of nurses' caring behaviors among nurses working in public hospital inpatient departments. They discovered a statistically significant positive correlation between nurses' caring behavior and their knowledge of caring behavior. This finding is corroborated by Alamdari et al. (2025), who conducted a study to evaluate the relationship between nurses' knowledge, attitudes, and practices regarding elder abuse and their assessment of caring behaviors. They discovered that there are significant positive correlations between nurses' knowledge and their caring behaviors.

Additionally, these findings were consistent with those of Chang et al. (2026), who evaluated clinical nurses' knowledge, attitudes, and practices on humanistic care. They found that correlation analysis indicated strong positive associations between knowledge and practice of caring behaviors. These results aligned with those of Tong et al. (2022), who examined nurses' experiences delivering transcultural nursing care and found that nurses' cultural competence influences their capacity to provide patients from a variety of cultural backgrounds with culturally appropriate care. Furthermore, the quality of nursing care, patient outcomes, and patient satisfaction can all be enhanced by culturally competent nurses.

These results are consistent with those of Abou Hashish et al. (2025), who evaluated cultural competence, transcultural teaching practices, and influencing factors in nursing academia. These results, however, were unmatched by those of Argyriadis et al. (2022), who included nurses in a study about self-assessment of health professionals' cultural competence: knowledge, skills, and concepts for optimal health care and found that there is a gap between cultural knowledge and caring skills among nurses. Since nurses make up a large portion of the healthcare workforce worldwide (World Health Organization, 2022) and are frequently the healthcare personnel to identify, recognize, and respond appropriately to a client.

Additionally, Theodosopoulos, Fradelos, Panagiotou, and Tzavella (2025) discussed the relationship between cultural competence and ethical sensitivity. Henderson et al. (2018) argue that cultural competence goes beyond basic cultural knowledge and skills, emphasizing the importance of developing deeper moral reasoning in healthcare practitioners through engagement with real ethical dilemmas.

Conclusion

The aim of the present study is to determine the effect of caring behavior-based training program on nurses' cultural competence. This study concluded that nurses' knowledge, perception of caring behaviors, and culture competence are improving after implementing training program about caring behavior This means the majority of nurses have unsatisfactory level of knowledge and moderate perception regarding caring behaviors and low level of perception regarding culture competence in pre implementing training program of caring behavior, also total knowledge and perception regarding caring behaviors and total level of perception of culture competence had improved among all of them in immediate post and follow up of implementing training program of caring behavior.

Suggestions

The study's conclusions may lead to the following recommendations.

For nursing personnel

• Taking part in training exercises that focus on developing nurses' cultural competency and fostering cultural sensitivity and compassion for patients from varied cultural backgrounds.

• Including culturally relevant techniques in their clinical procedures to improve patient participation, trust, and satisfaction with therapeutic interventions.

• Developing an appreciation for the significance of honoring patients' cultural beliefs, particularly while providing care for patients from varied ethnic backgrounds.

Regarding head nurses

• Fostering a culture of compassion in their nursing units by exhibiting empathetic and culturally aware leadership.

• Including the concepts of culturally competent care in clinical round handover and daily nursing monitoring.

• Ensuring the availability of culturally relevant resources, such as culturally sensitive care guidelines and translated teaching materials.

For directors of nursing

• It is advised that health care organizations use standardized instruments to periodically evaluate nurses' compassionate actions and cultural competency.

• Creating clinical policies and guidelines and putting them into practice by medical professionals to support culturally competent treatment.

• Implementing a training program based on compassionate conduct by healthcare organizations as a primary tactic to improve nurses' compassionate behavior for the provision of culturally sensitive care.

• Providing sufficient funding and administrative assistance for the creation of training initiatives that improve nurses' compassionate conduct and cultural competency.

For nursing education program directors

• Including notions of caring conduct and cultural competency in nursing courses and continuing education programs for nurses.

• Including compassionate behavior and cultural competency as important learning objectives for nursing education.

• Encouraging students to become conscious of their cultural views and any prejudices that could affect their nursing practices and patient care in the future.

• For additional investigation

• To obtain results that may be applied generally, it is strongly advised to repeat the same study across the whole health care industry.

• Investigating the elements influencing staff nurses' cultural competency and compassionate conduct

• Assessing how a training program focused on compassionate

behavior affects patient satisfaction and treatment quality.

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