

Empathy and Compassionate Care in Nursing Education: A Study of Nursing Students' Attitudes and Behaviors

Albatool Shaher AlSarayreh, MSc* Waddah Mohammad D'emeh, PhD, MSc** Bushra kh Alhusamiah, PhD, MSc*** Ghayda Alkhotoba, MSc**** Areen Aljarrah, MSc*****

ABSTRACT

Empathy and compassionate care play an essential role in nursing care so they encourage communication effectively, establishing trust with patients and leads to improved clinical outcomes. Therefore, it is important the nursing student understand these concepts and apply them in their clinical work. Nonetheless, the literature supporting the significance of empathy and compassionate care remains limited, reflecting a gap that needs to be addressed, especially in Jordanian settings. The major aim of this study is investigate the levels of empathy, compassionate care among Jordanian nursing students and identify whether there is a relationship between these variables. A total of 337 nursing Students from three major universities in Jordan were included in the study, the study utilized a descriptive cross-sectional design and data were collected using the Arabic translated version of Toronto Empathy Questionnaire and the Caring Dimensions Inventory. The results showed that overall mean empathy score was 47.17 (SD = 7.03) that indicate for high level of empathy. While the mean score for compassionate care was 1.88 (SD = 0.50) also indicates to high levels of compassionate care. The Person's correlation test indicated to moderate statistically significant positive correlation between both variables ($r = 0.56$, $p < 0.001$), which showed that the empathy levels increase when compassionate behavior improves. No observed any significant difference in empathy or compassionate care scores based on sociodemographic characteristics including age, gender, academic year or clinical training area. Nursing students showed high levels of empathy and the caring behavior. Accordingly, nursing education strategies that enhance the empathy and caring behavior, should be developed such as structured clinical sessions and classroom activities. Future Qualitative studies may consider the development of empathy and compassionate care as Students transition into professional practice.

Keywords: Empathy ,nursing education ,compassionate care ,nursing attitude.

INTRODUCTION

Empathy and compassion are fundamental elements of nursing care. In striving to deliver high-quality care, nurses must also attend to the emotional needs of patients throughout their healthcare journey^{1,2}. Empathy is the ability to understand and connect with emotions of others, encouraging nursing students to form personal connections with patients to foster trust and effective communication. Compassion builds upon empathy by inspiring nurses to take meaningful action to alleviate patient suffering and provide support^{1,3,4}.

The concept of empathy was initially introduced by Carl Rogers in 1957⁵ and has since been widely recognized as an essential aspect of nursing practice by numerous professional organizations. For instance, the American Nurses Association's Code of Ethics (2015)⁷ highlights empathy as a critical element of care, emphasizing the importance of practicing with compassion while respecting the dignity and individuality of each patient. Similarly, the American Association of Colleges of Nursing (2024) identifies empathy as a key characteristic of humanistic and compassionate care. It involves seeing the nurse's

role from the patient's perspective, thus enhancing communication and encouraging reflective questions such as, "How would I feel in this situation?"⁶. Despite its recognized value, defining empathy in universally accepted terms and outlining its practical application remains a challenge⁵. In an integrative review, noted the lack of a single definition of empathy, but identified nine attributes namely (1) empathy as a contagion, that nurses feel empathy as an automatic neural response to the feelings or conditions of another person, (2) empathy as humility, that nurses feel empathy when they suspend judgment and demonstrate self-awareness of their own biases and assumptions, (3) empathy as imagination, that nurses feel empathy when they imagine being in the position of another person, (4) empathy as intelligence, that nurses demonstrate self-awareness and thoughtful reflection when being empathetic, (5) empathy as perception, that nurses were empathetic when they were able to perceive meanings and feelings associated with the experiences of other individuals, (6) empathy as response, that nurses feel empathy when they demonstrate a deep concern for another person's situation, (7) empathy as communication, that nurses demonstrated empathy when they listened and responded

* Full-time Lecturer, Department of Allied Medical Sciences
Karak University College, Al-Balqa Applied University
Karak, Jordan. Email: Albatoolsarayrah@bau.edu.jo

** Associate Professor, Department of Community Health Nursing
School of Nursing, The University of Jordan, Amman, Jordan.

*** Assistant Professor, Dean's Assistant of Academic Affairs
Faculty of Nursing, Middle East University, Amman, Jordan.

**** Full-time Lecturer, Department of Allied Medical Sciences
Karak University College, Al-Balqa Applied University, Karak, Jordan.

***** Nursing student, RN, Jordan University of Science and Technology
Irbid, Jordan,

to the concerns of other individuals, (8) empathy as behaviour, that nurses were empathetic when they performed actions in response to their concern about another person's situation or condition, and (9) empathy as reflection, that being empathetic required having to reflect on one's actions, feelings, and experiences while at the same time recognizing other people's experiences within their own contexts and environments^{8,9}.

Similarly, in a qualitative study, described empathy as a process that nurses undergo when caring for others, comprising behaviours such as engagement, listening, and echoing, cognitive interactions, imagination, and affective practice. However, the study was also unable to provide a singular definition of empathy, instead noting that empathy can be plural (i.e., nurses being empathetic of the conditions or situations of more than one group of individuals, even if such groups are in conflict or opposition of one another) or biographical (i.e., nurses can better demonstrate empathy when they can identify with the conditions of another individual based on their own life experiences)³.

Nevertheless, a useful definition of empathy and caring can be gleaned from Watson's Theory of Human Caring. Watson postulated that caring is the core of nursing, and as such was the component that integrates the aspects of nursing practice, and that empathy is the ability to recognise, if not fully understand, the perspectives of another individual with the purpose of achieving common ground or objectives^{10,11}. By understanding caring as a fundamental element of nursing care and empathy as an ability that promotes relationality between and among individuals, nurses can plan, develop, and implement care that is anchored on these two components¹².

The lack of a universal definition for empathy *vis-à-vis* the expectation of professional nursing organizations for nurses to demonstrate empathy in their clinical practice puts teaching empathy to nursing students in a significant conundrum. The challenge is to teach empathy to nursing students with a workable definition for instance, noted that nursing students should not be expected to "walk in another's shoes", but rather to be able to develop the skill to manage their emotions and create contexts that will enable them to become empathetic without becoming distressed and burned out¹³. Therefore, teaching empathy using specific strategies should be comprised of empowerment and coaching, reflection and critical analysis of experiences, peer-to-peer learning and support, and role modelling and facilitative techniques. In addition, in a systematic review of the literature, recommended the use of immersive and experiential learning methods that involved simulation, role plays, and manikin-based scenarios to teach and practice empathy while emphasizing its multidimensional aspect⁸. Nursing students should be mindful that learning empathy is anchored on the recognition that there are many ways by which nurses can be empathetic and that being empathetic requires emotional and cognitive regulation to prevent one from being "absorbed" into the experiences of others, thus preventing depression, anxiety, distress, apathy, indifference, and dehumanization of patients and their families. More importantly, teaching empathy will have to coincide and become manifested in caring behaviours, and nursing students will have to acquire the experience and develop the competence of how to embed empathy with the care they provide to patients and their significant others

Moreover, while there were studies that explored the concepts of empathy and caring among nurses and nursing students in Jordan, these studies were not able to examine the relationship between these two variables – often, the aim of these studies were looking at empathy alone, caring alone, or the link between empathy or caring and another emotional or psychological variable (e.g., stress, self-perception, etc.)^{14,15,16}. In addition, the object of empathy and caring varied

significantly, with studies either looking at empathy or caring of nursing students towards co-students or co-nurses, instructors, or patients. Lastly, studies on caring and empathy, especially those using Watson's Theory of Human Caring, captured mostly Western perspectives of what care and empathy constitute. Jordan is a middle eastern country, in which nursing culture has its unique nature, and nursing share their beliefs, practices, and norms. Therefore, different they would have different perspective in defining the essential parts of care in the health professions As such, this study proposes to investigate the relationship between caring and empathy of nursing students within the Jordanian healthcare context. Specifically, this research addresses the subsequent questions: (1) What is the level of empathy shown by nursing students in Jordanian Universities? (2) What is the extent of caring behaviors among these nursing students? (3) Is there an association between the nursing students' levels of empathy and their level of caring behaviors? (4) How do demographic characteristics influence nursing students' empathy and caring behaviors level¹⁷?

Aim: This cross-sectional study was conducted to investigate the extent of empathy and compassionate care among nursing students in Jordan, as well as to examine the potential relationship between empathy and their caring behaviors.

METHODS

Research Design: A descriptive, cross-sectional approach was used in this study to explore the association between empathy and caring behaviors among nursing students in Jordan. This design is used to help facilitate the assessment of the variables of interest in a single point of time. Also, to identify relationships and differences among study participants with regards to those variables. In addition, convenience sampling allows for ease of access to nursing students in the participating educational institutions. However, we recognise that convenience sampling does not permit randomisation, and this can lead to some limitations in the external generalizability of findings.

Research Setting: The research took place at three prominent universities situated in the northern, central, and southern regions of Jordan. These institutions were selected to ensure proper representation of nursing education practices across the country to ensure generalizability of study results. All selected universities have accredited nursing programs with clinical training components.

Sampling Design: Convenience sampling was performed to identify and recruit participants in the study. Eligible participants were nursing students. The inclusion criteria were (1) must be a second-year nursing student or higher, (2) must have had experience in at least one clinical placement area, and (3) must have had experience in direct patient care (i.e., allocated a patient to work with during clinical placement). The study's target sample size was calculated based on an accessible population of the second year, third year, and fourth year nursing students currently enrolled in the college, error rate of 0.5, confidence interval of 95%, moderate effect size of 0.5 and power of 0.8.

Instrumentation: For this study, the Arabic translated versions of the tools were used to accommodate for cultural adaptation and sensitivity; both were tested for their validity and reliability in a previous studies¹⁸. The Toronto Empathy Questionnaire was used to measure the levels of empathy among nursing students¹⁹. The questionnaire comprises 16 items scored on Likert scale, with "Never" scored as 0 and "Always" scored as 4. Some of the questionnaire items were worded positively, including items 1,3,5,6,8,9,13. While other items were negatively worded including items 2,4,7,10,11,12,14, and 15. A total score of the items ranges from 0 to 64, with cut-off score is 45. Where scores less

than 45 indicate low levels of empathy and scores above 45 indicating high levels of empathy. The questionnaire showed good levels of validity and reliability. The internal consistency reliability was tested using Cronbach's alpha and found to be 0.72. While one-factor solution was confirmed using exploratory factor analysis²⁰.

On the other hand, the Caring Dimensions Inventory (CDI) developed by Watson and Lea (1997) was used to measure caring behaviours. CDI consists of 25 items measuring perceptions of caring among nurses. Items are measured on a 5-point Likert scale with 1 as "strongly agree" and 5 as "strongly disagree". The lower the score, the higher the caring behaviour. The tool has an acceptable reliability with Cronbach's alpha values of 0.91 and has significant construct validity ($p < 0.05$).

Data Collection: Data collection was coordinated with the dean and head of research at each participating college. Eligible students were identified using a master list of enrollees provided by the registrar's office. Institutional emails were used to send the invitations to eligible students. Those who approved to be involved in the study were subsequently contacted by the researcher, who provided a detailed clarification of the study's purpose and data collection details. Upon approval to participate in the study, informed consents were sent to study participants in order to sign them before receiving the survey questionnaire. Lastly, the survey questionnaires were sent electronically to their emails, and they were given a period of one week to provide their responses. The data collection continued from January 2025 to April 2025, and the target sample size was achieved.

Data Analysis: Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) version 23. No data were missing from the data set. The data set was inspected for erroneous entries of which none were found. Both descriptive and inferential statistics were used. For descriptive statistics, percentages and frequencies were primarily used in sociodemographic variables including age, gender, training center, and academic year. Continuous variables such as empathy and caring behaviors scores were analyzed using means and standard deviations.

On the other hand, inferential statistics were used to test the study hypotheses. Independent t-tests were applied to assess differences in the average scores of empathy and caring behaviors between two-group variables, such as gender. For comparisons involving more than two groups, like academic year levels, one-way ANOVA was used. Additionally, Pearson correlation analysis was carried out to examine the relationship between empathy and caring behaviors. A significance level of $p < 0.05$ was used for all statistical analyses.

Ethical Considerations: The research protocol was approved and reviewed by the Institutional Review Board (IRB) of the participating universities with approval number: 45/4/2024/2025. All students participated by signing a consent form. Before taking apart, comprehensive information about study's purpose, procedures, potential risks and benefits, the information was presented in simple and accessible language to ensure comprehended it. Participants were informed of their right to withdraw from the study on any time without any negative consequences. To ensure anonymity each participant was given a unique identification number. Personal information is securely stored with access restricted to researchers.

Participants were informed that choosing to take part in the study or decline would not effect on their academic standing and the relationships with faculty members. This was important to avoid any potential coercion and that participants were comfortable making their own decisions about participating in the research. The researchers

also informed the students that the results of this study would be disseminated through academic publications and presentations to ensure their contribution to the wider field of nursing education and practice.

RESULTS

Sociodemographic Characteristics of Participants

A total 337 of nursing students participated in this study. In Table 1, the ages of most participants are between 21 to 23 years ($n=248$, 73.6%) then those aged 18 to 20 years ($n= 68$, 20.2%) and the smaller group was aged over 24 years ($n=21$, 6.2%). additionally, the majority of participants were female ($n= 269$, 79.8%) while male students accounted for 20.2% ($n=68$).

In terms of academic year, third year students comprised the largest group ($n=212$, 62.9%), followed by second year students ($n=80$, 23.7%) and first year students ($n=45$, 13.4%). Regarding clinical placement, students were distributed across multiple hospital departments. The most common placement was in internal medicine ($n=85$, 25.2%), followed by intensive care units ($n=63$, 18.7%), bstetrics, gynecology ($n=53$, 15.7%), and the emergency room ($n=46$, 13.6%). Other departments included surgery ($n = 44$, 13.1%), pediatrics ($n = 34$, 10.1%), operating room ($n = 5$, 1.5%), outpatient clinics ($n = 3$, 0.9%), and hemodialysis units ($n = 2$, 0.6%).

Empathy Among Nursing Students

A 16 item scale was used to assess empathy and the overall results showed a high level of empathy among the nursing students relatively, with a total mean score of 47.17 ($SD = 7.03$). In Table 2, the highest scoring item was item 5, (I enjoy making patients feel better)(Mean = 3.73, $SD = 0.72$), indicating strong emotional engagement and intrinsic satisfaction derived from patient care. Other high score item included item 12, (I am not really interested in how patients feel) (Mean = 3.55, $SD = 0.90$) and Item 14, (When I see a patient being treated unfairly, I do not feel very much pity for them) (Mean = 3.53, $SD = 0.94$). These

Table 1. Sociodemographic Characteristics ($n = 337$)

Variable	Frequency (n)	Percentage (%)
Age (years)		
18–20	68	20.2
21–23	248	73.6
>24	21	6.2
Gender		
Male	68	20.2
Female	269	79.8
Training Area		
Intensive care	63	18.7
Emergency room	46	13.6
Surgery	44	13.1
Pediatrics	34	10.1
Internal medicine	85	25.2
Outpatient	3	0.9
Obstetrics and gynecology	53	15.7
Hemodialysis	2	0.6
Operating room	5	1.5
Academic Year		
First	45	13.4
Second	80	23.7
Third	212	62.9

Table 2. Empathy Scale Item Scores Among Nursing Students

Item Number	Item Description	Mean ± SD
1	When patient is feeling excited, I tend to get excited too.	2.72 ± 1.00
2	Patient's misfortunes do not disturb me a great deal.	3.01 ± 1.14
3	It upsets me to see patient being treated disrespectfully.	3.47 ± 0.97
4	I remain unaffected when patient close to me is happy.	3.01 ± 1.12
5	I enjoy making patients feel better.	3.73 ± 0.72
6	I have tender, concerned feelings for people less fortunate than me.	2.30 ± 1.15
7	When a patient starts to talk about his/her problems, I try to steer the conversation towards something else.	2.85 ± 1.10
8	I can tell when patients are sad, even when they do not say anything.	2.70 ± 0.89
9	I find that I am "in tune" with other patients' moods.	2.55 ± 1.04
10	I do not feel sympathy for patients who cause their own serious illnesses.	2.82 ± 1.13
11	I become irritated when the patient cries.	0.94 ± 1.02
12	I am not really interested in how patients feel.	3.55 ± 0.90
13	I get a strong urge to help when I see a patient who is upset.	3.32 ± 0.94
14	When I see a patient being treated unfairly, I do not feel very much pity for them.	3.53 ± 0.94
15	I find it silly for patients to cry out of happiness.	3.45 ± 0.98
16	When I see a patient being taken advantage of, I feel kind of protective towards him/her.	3.22 ± 1.02
Total		47.17 ± 7.03

Table 3. Mean and Standard Deviation of Compassionate Care Scale Item among Nursing Students.

Item Number	Item	Mean ± SD
1	Assisting a patient with an activity of daily living (washing, dressing, etc.)	2.42 ± 0.98
2	Making a nursing record about a patient	1.66 ± 0.80
3	Feeling sorry for a patient	2.33 ± 0.82
4	Getting to know the patient as a person	2.24 ± 1.05
5	Explaining a clinical procedure to a patient	1.61 ± 0.78
6	Being neatly dressed when working with a patient	1.89 ± 0.91
7	Sitting with a patient	2.06 ± 0.85
8	Exploring a patient's lifestyle	2.14 ± 0.87
9	Reporting a patient's condition to a senior nurse	1.91 ± 0.82
10	Being with a patient during a clinical procedure	1.89 ± 0.76
11	Being honest with a patient	1.44 ± 0.67
12	Organize the work of others for a patient	1.88 ± 0.82
13	Listening to a patient	1.66 ± 0.71
14	Consulting with the doctor about a patient	1.56 ± 0.75
15	Instructing a patient about an aspect of self-care	1.64 ± 0.78
16	Sharing your personal problems with a patient	3.16 ± 1.14
17	Keeping relatives informed about a patient	1.88 ± 0.77
18	Measuring the vital signs of a patient	1.46 ± 0.80
19	Putting the needs of a patient before your own	2.49 ± 1.01
20	Being technically competent with a clinical procedure	1.77 ± 0.77
21	Involving a patient with his or her care	1.80 ± 0.78
22	Giving reassurance about a clinical procedure	1.61 ± 0.74
23	Providing privacy for a patient	1.42 ± 0.68
24	Being cheerful with a patient	1.67 ± 0.78
25	Observing the effects of a medication on a patient	1.52 ± 0.75
Total		1.88 ± 0.50

Table 4. Correlation Between Empathy and Compassionate Care

Variable	R	p-value
Compassionate care	0.56	< 0.001

Table 5. Differences in Empathy and Compassionate Care Scores by Demographic Characteristics

Variable	Test Statistic F/t	Empathy (p-value)	Compassionate Care (p-value)
Age	F(2, 334) = 0.87	0.421	0.387
Gender	t(335) = 1.07	0.288	0.312
Academic Year	F(2, 334) = 0.76	0.472	0.451
Training Area	F(8, 328) = 0.84	0.504	0.489

responses, despite being reverse coded items, suggest that students recognize and respond to emotional injustices experienced by patients.

Moderately high mean values were also reported for Item 13 (I get a strong urge to help when I see a patient who is upset) (Mean = 3.32, SD = 0.94) and Item 15 (I find it silly for patients to cry out of happiness) (Mean = 3.45, SD = 0.98) that reflecting the cognitive and affective aspects of empathy.

On the other hand, the lowest scoring item was Item 11, (I become irritated when the patient cries) (Mean = 0.94, SD = 1.02), which suggests that students typically respond with patience and emotional regulation rather than annoyance. Similarly, Item 6 (I have tender, concerned feelings for people less fortunate than me) (Mean = 2.30, SD = 1.15), and Item 9 (I find that I am 'in tune' with other patient's moods) (Mean = 2.55, SD = 1.04), were among the lower scores, indicating variability in students' emotional attunement.

Compassionate Care Behaviors among Nursing Students:

The assessment of compassionate care included 25 items ,the overall mean score was 1.88 (SD = 0.50), suggesting a moderate level of caring behaviors among participants. As shown in Table 3, the highest score item was item 16 (Sharing your personal problems with a patient) (Mean = 3.16, SD =1.14). This Item, may reflect a misinterpretation of professional boundaries rather than effective , compassionate care. Also high scores were noted of Item 19 (Putting the needs of a patient before your own) (Mean = 2.49, SD = 1.01) and Item 1(Assisting a patient with activities of daily living) (Mean = 2.42, SD = 0.98) , both of which represent practical and patient centered actions.

The lower mean score items included item 23(Providing privacy for a patient) (Mean = 1.42, SD = 0.68), the item 11,(Being honest with a patient)(Mean = 1.44, SD = 0.67) and Item 18 (Measuring the vital signs of a patient)(Mean = 1.46, SD = 0.80).The moderate overall score and variation across individual items suggest that while students demonstrate empathy, certain professional behaviors associated with compassionate care may require reinforcement during training.

Correlation Between Empathy and Compassionate Care

A Pearson correlation analysis was performed to examine the association between empathy and compassionate care scores. The results showed a moderate, positive, and statistically significant correlation ($r = 0.56$, $p < 0.001$), suggesting that students who scored higher in empathy were more inclined to exhibit compassionate care behaviors in clinical environments Table 4.

Differences Based on Demographic Characteristics

Statistical analyses were carried out to determine whether demographic factors including age, gender, academic year and clinical training area were linked to differences in empathy and compassionate care scores among nursing students. The findings showed no statistically significant differences in empathy scores between age groups ($p > 0.05$), indicating that students' capacity to empathize with patients remained relatively stable regardless of age.

Similarly, gender was not found to be a significant factor influencing empathy ($p > 0.05$) or compassionate care scores ($p > 0.05$), indicating that both male and female nursing students demonstrated comparable levels of emotional responsiveness and caregiving behaviors.

Analysis by academic year (first, second, and third year) also revealed no significant differences in mean scores of empathy or compassionate

care ($p > 0.05$), implying that progression through nursing education did not substantially affect these interpersonal competencies.

Finally, when comparing students placed in different clinical training areas, including internal medicine, intensive care, emergency, surgery, pediatrics, obstetrics, and gynecology, and others, there were again no statistically significant differences in either empathy or compassionate care scores ($p > 0.05$). No significant relationships or differences were found between empathy or caring and sociodemographic variables Table 5.

DISCUSSION

The study provided evidence regarding empathy and caring behaviours of nursing students in Jordanian healthcare settings. The study showed that nursing students had high levels of empathy and caring behaviours, which are essential elements in the development of a professional nursing character. Findings are similar to the results of other studies that explored the levels of empathy and caring behaviours of nursing students in other geographical contexts^{21,22,23}. The scores obtained by the participants are demonstrative of the value that their nursing education has placed on the development of nursing attitudes and behaviours, especially since the majority of the students belonged to the senior year levels⁸.

No significant differences were found in the scores of nursing students based on their age, sex, training department, and academic year. These results are supportive of the hypothesis that empathy and caring behaviours pervade nursing practice and are present as fundamental elements of the profession regardless of where, how old, how senior, and how experienced the nurse is⁵. Whilst recently studies have shown that environmental stressors, heavy workload, organisational culture, staffing shortages, poor skill mix, and increasing patient acuity have negatively affected the ability of nurses to demonstrate care and compassion to patients and families, it can be argued that the measured decrease in caring behaviours among nurses has been observed in the first place because it has been an expectation that nurses will have caring behaviours as a defining characteristic of their profession and practice²⁴. The lack of significant findings suggested that the expression of empathy and compassionate behaviors among nursing students in this sample was not significantly influenced by demographic or academic variables. In other words, the levels of empathy and caring among nursing students were of similar values. This may indicate a consistent emphasis on these professional values across the nursing curriculum and clinical settings, or a shared intrinsic motivation among students regardless of their backgrounds.

Developing empathy and caring behaviours is critical in the education of nursing students, especially when considering that nursing is distinctive as a "caring" profession²⁵. Although the concept of caring and what constitutes "care" have dramatically changed since the advent of medical technology, artificial intelligence, and advanced medical techniques, caring remains a central concept in the delivery of nursing services²⁶. Caring has been deeply embedded in the ways and practices of nursing that the identity of nursing as a profession has become inconceivable without the element of care²⁷.

Similarly, empathy can be viewed as a significant ingredient in the evolution of caring behaviours. Concept analyses of empathy suggested that developing the capability to view oneself in the "shoes" of another tended to contribute to the ways by which nurses can acknowledge and understand the position of patients and their families⁵. When nurses understand where the perspectives, meanings, and experiences of patients are coming from, nurses are better positioned to demonstrate

compassion, respect, dignity, and consideration, behaviours and attitudes which are in turn reflective of a caring attitude²⁸. The link between empathy and caring behaviours is supported by the significant, positive relationship that was measured between the two variables. Associating these results with Watson's Theory of Human Caring supported the idea that caring and empathy are two integrated concepts, rather than as two separate ideas that do not hold any relationship to each other. In other words, caring can be theoretically and empirically understood as integral to empathy – for a nurse to become empathetic, the nurse needs to be demonstrative of caring behaviours and attitudes that will motivate them to understand another individual from their perspective or position.

Moreover, the significant relationship between caring and empathy suggested the significance of incorporating these concepts in the learning journey of nursing students. Because of the recognition that caring and empathy are embedded in nursing practice, the teaching of theoretical concepts will have to be anchored on the concepts of caring, and how nursing students can grow into practitioners who are not only knowledgeable in their clinical practice but also who are able to manifest caring and empathy in their daily activities^{13,29}. This assertion may not necessarily require an overall revamp of nursing curricula, but keeping in mind the need for nursing students to become caring and empathetic professionals should be forefront in their professional growth and development.

In addition, learning about caring and empathy should be contextualised within the current predicaments of healthcare organisations, and more importantly, of those situated in Jordan where the participants were recruited from. Nursing students should not be shielded from systemic and institutional issues such as shortages in the nursing workforce, high turnover rates and low job satisfaction, poor skill mix in different healthcare settings, increasing patient and family demands and complexity, and increasing dependence on medical technology and high-risk medications³⁰. The challenge for those involved in nursing education will be on how to teach caring and how to motivate nursing students to persist in demonstrating caring behaviours and empathy despite these issues and concerns³¹.

However, it should be noted that empathy and caring behaviours are not static variables. Instead, the extent to which nurses can demonstrate empathy and care is dynamic and can be positively or negatively affected by multiple individual, organisational, and environmental factors^{8,32}. The implication is that educational institutions should continue to emphasise the value of empathy and care among nursing students as they go on to complete their studies. Educational institutions should conceptualise and implement strategies that can help inculcate these values and behaviours to nursing students^{22,25}. For instance, nursing students can be asked to observe active reflective practice as they complete their undergraduate training and identify ways in which they could be empathetic and caring to the patients and families that they encounter.

The study has some limitations. One, because of the cross-sectional design, the study only measured empathy and caring behaviours once during data collection. As previously mentioned, levels of empathy and caring behaviours can change over time. Two, the study was not able to capture the levels of empathy and caring behaviours of nursing students as they transitioned into the role of a registered nurse. Some studies have suggested that nursing attitudes and behaviours taught to students might waver over time as they shift their roles from being a student into becoming a registered nurse. Three, there is a degree of response bias as the study was reflective of the cohort of nursing students learning within the Jordanian healthcare context. Empathy

and caring behaviours as taught to students might differ in other locations owing to differences in curricula and teaching strategies. Fourth, the tools relied on self-measures of caring and empathy. The perceptions of caring and empathy displayed by nursing students might be significantly different from that perceived by recipients of care such as patients, families, and significant others. Future research can utilise longitudinal designs to measure trends and changes in levels of caring and empathy over time, and can make use of qualitative methods to elicit in-depth information regarding the experiences of nursing students in their journey of learning and living the concepts of caring and empathy in their practice.

CONCLUSIONS

Empathy and caring behaviours are essential components of professional nursing practice and education. Nursing students should learn and understand what the concept of empathy and compassionate care entails within nursing practice. Findings of this study showed that nursing students who had high levels of empathy were likely to demonstrate high levels of caring behaviours. Educational institutions should devise and implement strategies that can help nursing students develop the empathy and caring behaviours needed to effectively care for their patients and families, especially since empathy and caring behaviours are dynamic characteristics that are affected by the complex nature of healthcare organisations and the delivery of nursing services.

Authorship Contribution: A.S. led the conceptualization and design of the study, developed the research framework, coordinated the overall project execution, and was responsible for data collection, ensuring the accuracy and integrity of the information gathered. B.A. also conducted the data analysis and contributed to the interpretation of the results and prepared the manuscript. W.D. provided expert input on the study's clinical implications and critically reviewed the manuscript for significant intellectual content. A.A. reviewed the main manuscript text and prepared the figures. G.K. contributed to reviewing the final manuscript draft. All authors have reviewed and approved the final version of the manuscript and affirm to be accountable for all aspects of the work.

Potential Conflicts of Interest: None

Competing Interest: None

Acceptance Date: 07 October 2025

REFERENCE

1. Babaei S, Taleghani F, Farzi S. Components of compassionate care in nurses working in the cardiac wards: A descriptive qualitative study. *J Caring Sci* 2022;11(4):239–45.
2. Feo R, Kitson A, Conroy T. How fundamental aspects of nursing care are defined in the literature: A scoping review. *J Clin Nurs* 2018;27(11–12):2189–229.
3. McKinnon J. In their shoes: An ontological perspective on empathy in nursing practice. *J Clin Nurs* 2018;27:3882–93.
4. Moudatsou M, Stavropoulou A, Philalithis A, et al. The role of empathy in health and social care professionals. *Healthcare (Basel)* 2020;8:26.
5. Fernandez AV, Zahavi D. Basic empathy: Developing the concept of empathy from the ground up. *Int J Nurs Stud* 2020;110:103695.
6. Royal College of Nursing. *Communication and empathy*. 2019.
7. American Association of Nurses. *Code of Ethics for Nurses with Interpretive Statements*. 2015.

8. Levett-Jones T, Cant R, Lapkin S. A systematic review of the effectiveness of empathy education for undergraduate nursing students. *Nurse Educ Today* 2019;75:80–94.
9. Levett-Jones T, Cant R. The empathy continuum: An evidenced-based teaching model derived from an integrative review of contemporary nursing literature. *J Clin Nurs* 2020;29(7–8):1026–40.
10. Clark CS. Watson's human caring theory: Pertinent transpersonal and humanities concepts for educators. *Humanities* 2016;5(2):21.
11. Sitzman K, Watson J. *Caring Science, Mindful Practice: Implementing Watson's Human Caring Theory*. Springer Publishing Company; 2018.
12. Wei H, Watson J. Healthcare interprofessional team members' perspectives on human caring: A directed content analysis study. *Int J Nurs Sci* 2019;6(1):17–23.
13. Taylor R, Thomas-Gregory A, Hofmeyer A. Teaching empathy and resilience to undergraduate nursing students: A call to action in the context of COVID-19. *Nurse Educ Today* 2020;94:104524.
14. Altwalbeh D, Khamaiseh AM, Algaralleh A. Self-reported empathy among nursing students at a University in Jordan. *Open Nurs J* 2018;12(1).
15. Atta MHR, Hammad HAH, Elzohairy NW. The role of empathy in the relationship between emotional support and caring behavior towards patients among intern nursing students. *BMC Nurs* 2024;23(1):443.
16. Hamaideh SH, Abuhammad S, Khait AA, Al-Modallal H, Hamdan-Mansour AM, Masa'deh R, et al. Levels and predictors of empathy, self-awareness, and perceived stress among nursing students: A cross-sectional study. *BMC Nurs* 2024;23(1):131.
17. Allari RS, Hamdan K, Zahran Z, Alabdullah A, Salem SG, Saifan AR, et al. Perception of nursing students from the Middle East about caring: A descriptive, comparative, cross-sectional study. *Nurs Open* 2023;10(2):1083–91.
18. Alhadidi MM, Abdalrahim MS, Al-Hussami M. Nurses' caring and empathy in Jordanian psychiatric hospitals: A national survey. *Int J Ment Health Nurs* 2016;25(4):337–45.
19. Spreng RN, McKinnon MC, Mar RA, Levine B. The Toronto Empathy Questionnaire: Scale development and initial validation of a factor-analytic solution to multiple empathy measures. *J Pers Assess* 2009;91(1):62–71.
20. Kourmoussi N, Amanaki E, Tzavara C, et al. The Toronto Empathy Questionnaire: Reliability and validity in a nationwide sample of Greek teachers. *Soc Sci* 2017;6(2):62.
21. Håkansson Eklund J, Holmström IK, Ollén Lindqvist A, et al. Empathy levels among nursing students: A comparative cross-sectional study. *Nurs Open* 2019;6(3):983–89.
22. Bas-Sarmiento P, Fernández-Gutiérrez M, Díaz-Rodríguez M, et al. Teaching empathy to nursing students: A randomized controlled trial. *Nurse Educ Today* 2019;80:40–51.
23. Labrague LJ, McEnroe-Petit DM, Papathanasiou IV, et al. Impact of instructors' caring on students' perceptions of their own caring behaviors. *J Nurs Scholarsh* 2015;47(4):338–46.
24. Wiechula R, Conroy T, Kitson AL, et al. Umbrella review of the evidence: What factors influence the caring relationship between a nurse and patient? *J Adv Nurs* 2016;72(4):723–34.
25. Richardson C, Percy M, Hughes J. Nursing therapeutics: Teaching student nurses care, compassion and empathy. *Nurse Educ Today* 2015;35(5):e1–e5.
26. Archibald MM, Barnard A. Futurism in nursing: Technology, robotics and the fundamentals of care. *J Clin Nurs* 2018;27(11–12):2473–80.
27. Marañón AA, Pera MPI. Theory and practice in the construction of professional identity in nursing students: A qualitative study. *Nurse Educ Today* 2015;35(7):859–63.
28. Teófilo TJS, Veras RFS, Silva VA, et al. Empathy in the nurse–patient relationship in geriatric care: An integrative review. *Nurs Ethics* 2019;26(6):1585–1600.
29. De Chesnay M, Anderson B. *Caring for the Vulnerable: Perspectives in Nursing Theory, Practice, and Research*. Jones & Bartlett Learning; 2019.
30. Fawaz MA, Hamdan-Mansour AM, Tassi A. Challenges facing nursing education in the advanced healthcare environment. *Int J Afr Nurs Sci* 2018;9:105–10.
31. Turale S, Meechanan C, Kunaviktikul W. Challenging times: Ethics, nursing and the COVID-19 pandemic. *Int Nurs Rev* 2020;67(2):164–7.
32. Sarafis P, Rousaki E, Tsounis A, et al. The impact of occupational stress on nurses' caring behaviors and their health-related quality of life. *BMC Nurs* 2016;15:1–9.