The Relation between Emotional Intelligence and Caring Behaviors among Staff Nurses at Main Mansoura University Hospital

[1] **Yasmine Mohamed Ramadan Zina,** [2] **Hala Gabr Mahmoud,** [3] **Sahar Hassan Helaly**

[1] Demonstrator at Nursing Administration, Faculty of Nursing - Damietta University

[2] Professor of Nursing Administration, Faculty of Nursing - Mansoura University, [3] Assistant Professor of Nursing Administration, Faculty of Nursing - Mansoura University.

Abstract

Background: Nursing divisions compose the majority of healthcare institutions, interact directly with patients, and deliver all necessary nursing care in a competent manner. Nurses possess abilities like emotional intelligence and caring behaviors that enable them to effectively promote patient safety, health and wellbeing while adhering to professional roles and responsibilities. **Aim:** To examine the relation between emotional intelligence and caring behaviors among staff nurses at Main Mansoura University Hospital. **Design:** A descriptive correlational design was utilized. **Sample**: 250 staff nurses from inpatient units at Main Mansoura University Hospital. **Tools:** Two tools were used for data collection namely, Emotional Intelligence Scale and Caring Behaviors Inventory. **Results:** More than half of the staff nurses studied had a high level of emotional intelligence. Most of the staff nurses studied have a high level of caring behavior. **Conclusion:** The current study concluded that there was a statistically significant correlation between emotional intelligence and caring behaviors among the studied staff nurses at Main Mansoura University Hospital. **Recommendations:** The hospital manager incorporate emotional intelligence and caring behaviors assessments as part of the recruitment and selection process for nurses. Create opportunities for continuing education and professional development for staff nurses to improve their emotional intelligence and caring behaviors which will improve the quality of care and services.

Introduction

Nurses are the foundation of health care systems, they provide up to 80% of basic healthcare, making them the most significant professional component of "front-line workers" in the majority of health systems **(Cho, & Kim, 2022).**

Emotions that nurses experience at work can affect them from a variety of aspects and have both favorable and adverse consequences. Because the workforce in the healthcare industry contributes significantly to the high standard of services offered, the feelings of healthcare workers are becoming increasingly significant in the workplace **(Alan, et al., 2021).**

Emotional intelligence (EI) is the capacity to recognize, understand, and consciously regulate one's own emotions as well as those of others. The ability of nurses to understand their own emotions as well as those of others makes emotional intelligence (EI) a crucial notion since it allows them to control their negative feelings when engaging with people or under pressure **(Sudibjo & Sutarji, 2020).**

EI has become a critical component of safe and effective nursing care as well as enhancing service quality in the quickly changing modern healthcare environment. As frontline healthcare workers, nurses should be able to think critically, be creative, be self-directed, and have mental agility so they can make the right decisions and address clinical problems. Because nurses have an obligation to safeguard, promote, and enhance patients' quality of life, The existence of EI is essential for a thriving workplace. It reduces workplace conflict, bullying, and rudeness **(Abou Hashish &**

Bajbeir, 2018 and Fitzpatrick & Alfes, 2022).

Nurses with greater EI tend to be more successful, more productive, and less likely to engage in ineffective work practices. Furthermore, compared to their counterparts, nurses with higher EI have shown higher levels of engagement and less burnout and resignation desire. Emotional intelligence (EI) is closely linked to social and emotional abilities, which in turn positively impact skills like empathy, communication, teamwork, accomplishment oriented, and negotiation—all of which are traits that support effective work performance. Therefore, because of their socioemotional skills, emotionally intelligent nurses can deal with stressful work situations while also feeling more psychologically well **(Sanchez-Gomez & Breso, 2020).**

Emotional intelligence encompasses both intrapersonal and interpersonal intelligence. Nurses use interpersonal intelligence, an external intelligence, to understand and sustain relationships with other people. It is necessary to foster qualities like empathy and sympathy as well as to build strong bonds with others. Conversely, intrapersonal intelligence is the internal intelligence that nurses utilize to comprehend and know themselves, which is essential for self-awareness, self-inspiration, and self-control. Nurses' academic and professional performance depends on their ability to control both intrapersonal and interpersonal emotions **(Suleman, et al., 2019).**

According to **Mayer and Salovey (1997)** model have identified the four primary dimensions of emotional intelligence (EI): Self-emotions

appraisal dimension, which characterizes a nurse's capacity to recognize and comprehend their own deep emotions and to naturally express them; the appraisal dimension of others' emotions, which evaluates nurses' capacity to recognize and comprehend the emotional states of others **(Giao, et al., 2020).** The use of emotional dimension measures a nurse's capacity to direct their feelings toward productive endeavors and individual achievement. Upon experiencing depression or distress, nurses who score highly on this ability will be able to quickly return to their normal psychological states. The nurse's ability to control their emotions to achieve the intended outcomes, maintain composure in the face of psychological discomfort, overcome challenges, and expedite their recuperation from stressful situations is known as the regulation of emotion dimension

(Alotaibi, Amin, & Winterton, 2020).

The trait model was developed by **Petrides and Furnham (2009)**, which is a construct made up of four important scales, including: The ability to perceive and interpret emotions on one's own is known as emotionality. Sociability is a measure of one's ability to regulate and control one's own emotions as well as those of others. Characteristics of well-being that are connected to personality dispositions. self-control, which includes impulse control and self-efficacy in emotions.

The last model is the mixed one. It is made up of two large branches that consider this construct a mixture of traits, competencies, and abilities. According to the first one, developed by **Bar-On (1997),** Emotional intelligence (EI) is a collection of non-cognitive capabilities and competencies that

affect one's capacity to successfully manage environmental demands and pressures. It is made up of five essential elements: general mood, stress management, adaptation, interpersonal skills, and intrapersonal skills. The second one, proposed by **Goleman (1995)**, EI is likewise conceived as a hybrid model that has some similarities to the Bar-On model. It is made up of the following elements: recognition of one's own emotions, management of emotions, self-motivation, recognition of emotions in others, and management of relationships. **(Bru-Luna, et al., 2021)**

The Bar-On model involves intra-personal scale, inter-personal scale, adaptability, stress management and general mood. Intra-Personal scale includes emotional self-awareness, assertiveness, self-regard, self-actualization, and independence. Inter-Personal scale includes interpersonal relationship, empathy, and social responsibility. Adaptability includes problem solving, flexibility, and reality testing. Stress management includes stress tolerance, and impulse control. General mood involves optimism and happiness **(Chakrabarti & Chatterjea, 2018).**

According to Goleman's model identified five components of EI: Self-awareness is the ability to identify one's own feelings, be aware of one's own strengths and weaknesses, and have faith in one's own abilities is known as self-awareness. It includes self-certainty, realistic self-administration, and emotional mindfulness. Self-regulation involves capacity to hold unpleasant emotions and impulses, preserve the rules of honesty and integrity, be responsible for personal performance, adaptable to change,

open to new ideas and information, and mix comfort with ambiguity. Social skills are essential for managing relationships, being effective with others, persuading others, understanding human relationships, resolving conflicts, and performing cooperatively **(El Khatib, Almteiri & Al Qasemi, 2021).**

The third component is *motivation,* which can be described by the energy source of our actions and is often felt through the degree to which a nurse is apathetic, uninterested, depressed, and lethargic, or, on the other hand, the degree to which he is enthusiastic, efficacious, optimistic, and energetic. Empathy is about having a positive impression of a specific individual and trying to understand why he is behaving in a particular way, even if he has done something morally wrong or something that angers you **(Blaik**

Hourani, Litz & Parkman, 2021). Social skills include the capacity for persuasion, open communication and clear message delivery, opinion resolution, leadership, cooperation, teamwork, communication, influence, team capabilities, and bonding **(Pandey, 2021).**

Caring is a complex and subjective concept and is considered as an interactive process between nurses and patients to meet the patients' needs. Care is the essence of nursing and has been acknowledged the crucial role of nurses in the healthcare system. **(Davoodi, et al., 2020).**

Caring behavior is the fundamental attitude and everyday experiences of nurses as individuals and professionals that arise when they interact with a client and are manifested via practical nursing actions and behaviors. In order to engage in caring behaviors, a nurse must be

committed to their own and other communities on a personal, social, moral, and spiritual level (**Oluma & Abadiga, 2020).** In order to demonstrate caring behaviors, nurses need to possess a wide range of skills, knowledge, and experience. These include communication, empathy, clinical competency, interpersonal skills, and a holistic approach to healing that can improve therapy procedures and relationships (**Koon, 2020).** Strengthening the standard of care would help control illness, improve life quality, and prevent complications. Nurses are able to identify patients' problems, develop solutions, make plans, implement them, and evaluate their efficacy through the therapeutic relationship that caring fosters (**Karaman, Yerebakan & Cakmak, 2022).** When a nurse demonstrates caring behavior, it encompasses all the client's actions, emotions,

thoughts, perceptions, gestures, movements, glances, and efforts. This compassionate action ought to be morally based (**Hajibabaee, et al., 2022).**

Caring behaviors can be expressed or manifested physically. The expressive component consists of intervention actions like being with the client, providing emotional support, and listening to them, whereas the physical component is task-oriented (such as pain management and medication administration). Effective nursing caring behaviors has a positive effect on patient outcomes, such as recovery, successful coping, and satisfaction; inadequate nursing care can result in a reduction in the standard of care (**Alquwez et al., 2021).**

Caring behaviors may be influenced by a variety of factors, such as the availability and visibility of nurses, the provision

of appropriate health-related information in a language free of medical jargon, the quality of care, the provision of information, waiting times, the ability of nurses to provide patient-centered care, communication skills, and the nurses' caring abilities, compassion for the patient and competence in diagnosing and treating health problems, as well as the nurses' ability to respond to questions and give patients the opportunity to ask questions. All of these factors have an impact on the caring behaviors of nurses **(Kibret, et al., 2022).**

A lack of caring behavior can be produced by a variety of organizational and personal factors, including leadership style, work design, abilities, and skills. Because nurses have more obligations and are overly active during work hours, pressure affects their compassionate conduct **(Babapour, Gahassab-**

Mozaffari & Fathnezhad-Kazemi, 2022).

Among the caring behaviors that help patients externalize their feelings are listening, touching, and attending. In addition to the nurse's actual physical presence, presence also refers to how the care plan is structured. Touch is linked to both the administration of clinical treatments to the patient's body and therapeutic touch, which is an emotional exchange that boosts the patient's self-esteem. In addition to the biological capacity for hearing, the idea of listening is conveyed through facial expressions and eye contact. Therefore, nurses encourage self-worth and the process of adjusting to disease by acting in these compassionate ways **(Alikari et al., 2023).**

Nurses play a crucial role in providing patients with high-quality healthcare. They have a major positive impact on patient well-being, satisfaction with care,

and the effectiveness of healthcare organizations. Poor quality of care from nurses can have a significant impact on the viability of healthcare organizations. Therefore, it is important to hire, educate, and qualify nurses who possess the necessary qualities, such as emotional intelligence and caring behaviors, to provide patient-centered, passionate care **(Nair, 2022).**

Significance of the study

Emotional Intelligence is a critical ability for personal and professional success. Nursing professionals benefit from EI in several areas, including decision-making, patient care, accountability, empathy, trust, and communication management. Additionally, improving communication, stress tolerance, time management, and decision-making abilities can help increase emotional intelligence **(Khademi, et al., 2021).**

Furthermore, hospitals are required to be able to provide quality health services to patients. One of the manifestations of this quality service is the caring behavior that nurses have when providing health services to the patients they care for. Nurses with emotional intelligence are more able to cope with work overload and emotional fluctuation which help nurses improve physical and emotional wellness and have ability to communicate through explanation and listening skills can have a profound impact on patient health outcomes, patient satisfaction, and patient experience of care. In this regard, at Main Mansoura University Hospital no research had been done to study the relation between emotional intelligence and caring behaviors among staff nurses. Hence this present study aimed to examine the relation between emotional intelligence, communication skills, and caring

behaviors among staff nurses at Main Mansoura University Hospital.

Aim of the study

This study aimed to examine the relation between emotional intelligence and caring behaviors among staff nurses at Main Mansoura University Hospital.

Research Questions:

1. What are the emotional intelligence skills among staff nurses?

2. What is caring behaviors level among staff nurses?

3. Is there a relation between emotional intelligence and caring behavior among staff nurses?

Methods

Research design:

The research method used for this study was descriptive correlational design. This design is used to determine if, and to what extent, a relationship exists between variables **(Lai, 2018).**

The study setting :

The study was conducted at all inpatient units at Main Mansoura University Hospital that provides a wide range of healthcare services throughout the delta region**.** The main building consists of five floors and is occupied with 1860 beds. The main building consists of five floors; the first floor contains five units (general medicine, orthopedics, medicine and dialysis, medical neurosurgery, and anesthetic care unit). The second floor contains four units, an operating room for general surgery and laboratory investigation. The third floor contains two units for obstetric and gynecological department, two units for surgery and operating rooms for labor and anti-natal care units. The fourth floor contains two units for orthopedics surgery and two medical units. Finally, the fifth floor contains (ear, nose, and throat) surgery.

Participants of the study:

The study had a convenience sample of all staff nurses working in all inpatient units (n = 250) at Main Mansoura University Hospital who were available during data collection, agreed to contribute, and had more than a year of experience.

Tools of data collection: -

The following three tools were used for collecting data:

Tool I: Emotional Intelligence Scale.

It includes two parts:

The first part: It was used to identifying personal characteristics of the staff nurses, including their age, sex, educational qualification, unit, years of experience and marital status.

The second part: It was developed by **Schutte et al., (1998)** to assess emotional intelligence among health care professionals. It includes 33 items that are categorized under 5

categories namely, self-awareness (5 items), self-regulation (10 items), self-motivation (5 items), empathy (5 items), and social skills (8 items).

Scoring system:

Total score of emotional intelligence was divided into three levels based on cut of point % 50 as the following:

Low-level value <50%

Moderate level 50%-65%

High level >65%

Respondents rated the items on a 5-point Likert scale ranging from (1) = "Strongly disagree" to (5) = "strongly agree".

Tool (II): Caring Behaviors Inventory (CBI)

It was developed by **Wu, Larrabee, & Putman's** (2006) consist of 24-item was used to assess both nurses and other healthcare professionals caring behaviors. The scale has four dimensions that covered assurance (8 items), knowledge, and skill (5 items), respectfulness

(6 items), and connectedness (5 items).

Scoring system:

Total score of caring behaviors was divided into three levels based on cut of point % 50 as the following:

Low-level value <50%

Moderate level 50%-65%

High level >65%

Respondents rated the items on a 5-point Likert scale ranging from (1) = "Strongly disagree" to (5) = "strongly agree".

Validity and reliability:

A panel of five experts from the Mansoura University Faculty of Nursing established the validity for both the face and content validity of the tools after they were revised for clarity, relevancy, applicability, comprehensiveness, understanding, and ease of implementation. Based on their recommendations, changes were made to the tools, some of which involved rephrasing sentences and changing the grammatical structure. Statistical Package for Social Science (SPSS) version 22 was used to examine the reliability of the data collection tools using Cronbach's α (alpha) test. The emotional intelligence level had a Cronbach's alpha value of 0.903 and the caring behaviors inventory had a value of 0.901.

Pilot study:

A pilot study carried out on 25 of the staff nurses represent (10%) of total subjects to ensure clarity and relevancy of tools. Based on the findings of the pilot study that had more validity, no modifications were done, and the pilot study was included in the study sample.

Data Collection:

Three months, from the beginning of March to the end of May 2023, were dedicated to the collection of data. Data was collected by using self-administered questionnaires that were given out to the available

staff nurses during working hours in the morning and afternoon shift. The researcher spent two to three days a week in the setting. The researcher introduced herself, explained the aim of the study, how to fill the tools and obtained the staff nurse's acceptance to participate in the study after assuring the confidentiality of data. For roughly 25 to 30 minutes, nurses completed the questionnaires. The number of questionnaire sheets collected per day ranged from 5-10 sheets. Staff nurses were permitted to ask for any interpretation and explanation.

Ethical Consideration:

Formal approval was received from the Mansoura University Faculty of Nursing's research ethics committee. A formal approval to carry out the study was obtained from the hospital's accountable administrator. Staff nurses who agreed to participate in the study after being informed of its purpose and nature gave their oral consent. Every participant in the study was made aware that it is entirely voluntary. Data confidentiality was maintained and secured by assigning a code number to each questionnaire page. Staff nurses are notified that the tool content will be utilized exclusively for research purposes. The autonomy of participants to withdraw from the study at any moment was granted.

Statistical analysis:

Using SPSS for Windows version 22.0 (SPSS, Chicago, IL), the gathered data were arranged, tabulated, and statistically analyzed. The continuous data was presented as mean ± standard deviation (SD) and had a normal distribution. Numbers and percentages were used to express categorical data. The Chi-square test, or Fisher's exact test if appropriate, was used to compare variables using categorical data.

The correlation coefficient test was used to investigate any associations between two variables with continuous data. The study computed the reliability (internal consistency) test for the questionnaires applied. Statistical significance was set at p<0.05.

Results: -

Table (1): Personal characteristics of the staff nurses studied. According to this table the mean age of the studied nurses was 31.8 ±7.1 mean score and the most of them 88.0% were female, while only 12.0% were male. As regards educational qualification, more than a half of studied nurses (52.4%) had technical institute of nursing, while (47.6%) of them had diploma degree in nursing. About 44.8% of the nurses studied had less than 10 years' experience. This table revealed that more than two thirds of staff nurses studied (71.6%) were married and less than half of them (44.8%) worked in surgical units.

Table (2): Mean and standard deviation of all emotional intelligence dimensions among the nurses studied. In this table, the total mean of overall nurse's emotional intelligence score was 121.69 ±10.22 as reported by nurses studied. This table shows the highest mean was 38.01 ±4.44 reported to self – regulation and followed by social skills and self – awareness, 28.24 ±3.68 and 19.32 ±2.28 mean score respectively. While the least mean score was 18.02 ±2.41 and 18.09 ±2.16 reported for self – motivation and empathy respectively.

Table (3): Mean and standard deviation of caring behaviors among studied staff nurses. In this table, the total mean of overall nurse's caring behaviors score was 98.22 ±7.78 as reported by studied nurses. The table shows the highest mean was 33.78 ±3.24 reported to assurance and followed by respectfulness and

knowledge and skill, 24.52 ±2.61 and 20.46 ±2.06 mean score respectively. While the least mean score was 19.46 ±1.95 reported for connectedness.

Figure (1) shows levels of overall emotional intelligence among the staff nurses studied. This figure showed that more than half of the studied staff nurses who participated in the study (52%) had a high level of emotional intelligence, whereas the (9.60%) had represents a low level of emotional intelligence.

Figure (2) shows levels of overall nurses' caring behaviors among studied staff nurses. This figure showed that most of the staff nurses studied have a high

level of caring behaviors with percent (88.80%). While (2.00%) of them were reported to low level of caring behaviors.

Figure (3): represents correlation between emotional intelligence and caring behaviors of the studied staff nurses. This figure revealed that there was a statistically significant correlation between emotional intelligence and caring behaviors among the staff nurses studied (p<0.001**).

Table (1): Personal characteristics of the studied staff nurses (n=250)

| Characteristics	No	%
Age (Years)		
▪ 20 – < 30	110	44.0
▪ 30 – < 40	107	42.8
▪ 40 – < 50	29	11.6
▪ 50 or More	4	1.6
Mean ±SD	*31.8 ±7.1*	
Gender		
▪ Male	30	12.0
▪ Female	220	88.0
Educational qualification		
▪ Diploma nursing	119	47.6
▪ Technical institute of nursing	131	52.4
Experience (Years)		
▪ 1 – < 10	112	44.8
▪ 10 – < 20	81	32.4
▪ 20 – < 30	51	20.4
▪ 30 or More	6	2.4
Mean ±SD	*18.5 ±8.6*	
Marital status		
▪ Single	53	21.2
▪ Married	179	71.6
▪ Widow	7	2.8
▪ Divorced	11	4.4
Unit		
▪ Surgical	112	44.8
▪ Orthopedics	57	22.8
▪ Obstetric and gynecological	46	18.4
▪ Other unites	35	14.0

Table (2) Mean and standard deviation of all emotional intelligence dimensions among the studied staff nurses (n=250)

| Emotional intelligence dimensions	No of items	Min – Max	Mean ± SD	Rank
• Self – awareness	5	12 – 25	19.32 ±2.28	3
• Self – regulation	10	21 – 50	38.01 ±4.44	1
• Self – motivation	5	10 – 25	18.02 ±2.41	5
• Empathy	5	12 – 25	18.09 ±2.16	4
• Social skills	8	16 – 38	28.24 ±3.68	2
Overall emotional intelligence	33	93 – 151	121.69 ±10.22	

Table (3) Mean and standard deviation of all caring behaviors inventory dimensions among the studied staff nurses (n=250)

caring behaviors inventory dimensions	No of items	Min-max	Mean ±SD	Rank
A. Assurance	8	23 – 40	33.78 ±3.24	1
B. Knowledge and skill	5	16 – 25	20.46 ±2.06	3
C. Respectfulness	6	18 – 30	24.52 ±2.61	2
D. Connectedness	5	13 – 25	19.46 ±1.95	4
Caring behaviors inventory total score	24	80 – 118	98.22 ±7.78	
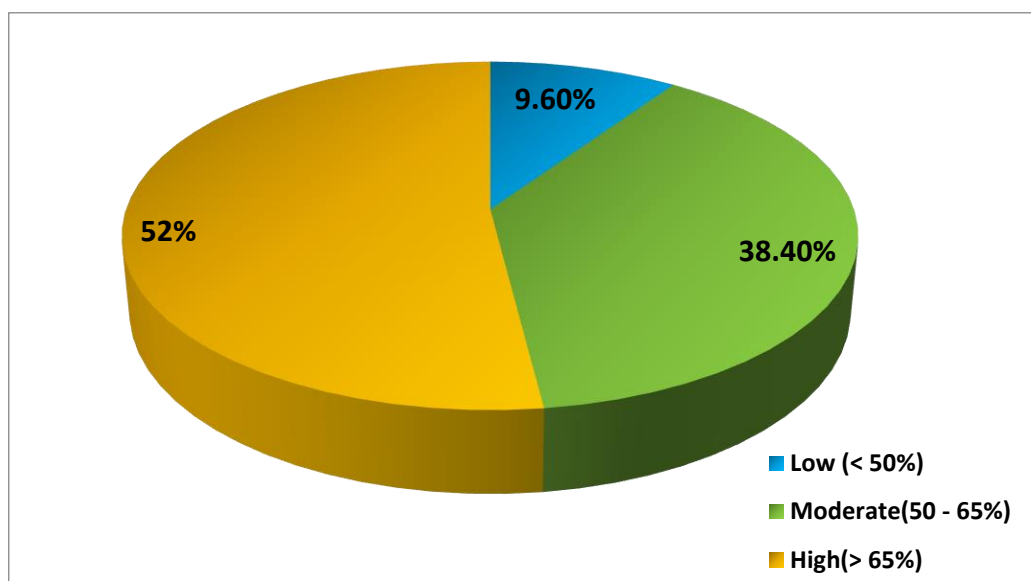
Figure (1): Levels of emotional intelligence among the studied staff nurses (n=250)
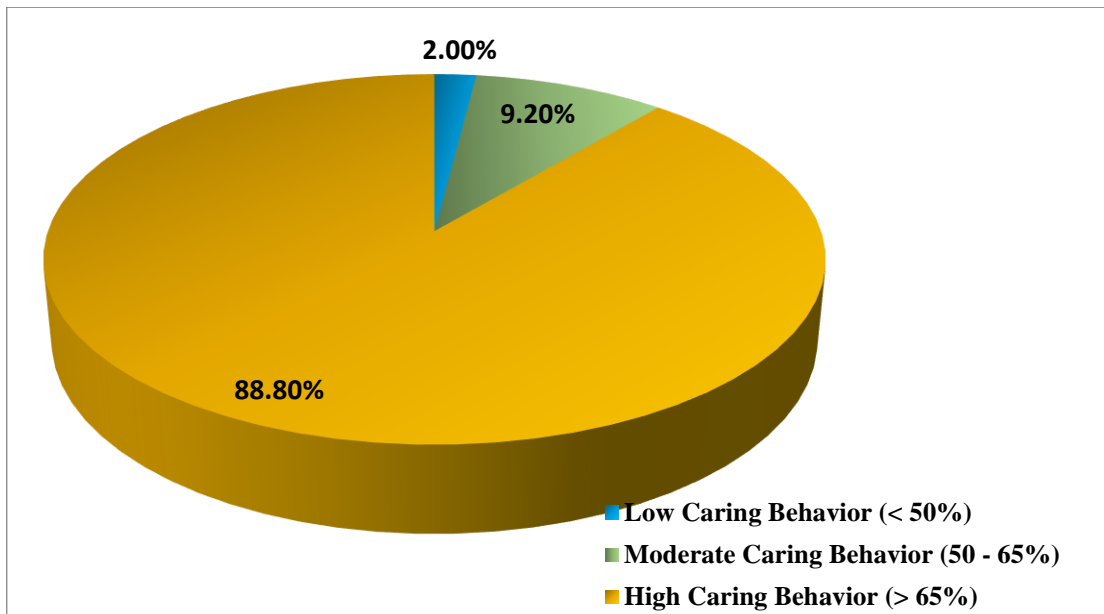
Figure (2) Levels of overall caring behaviors among studied staff nurses (n=250)
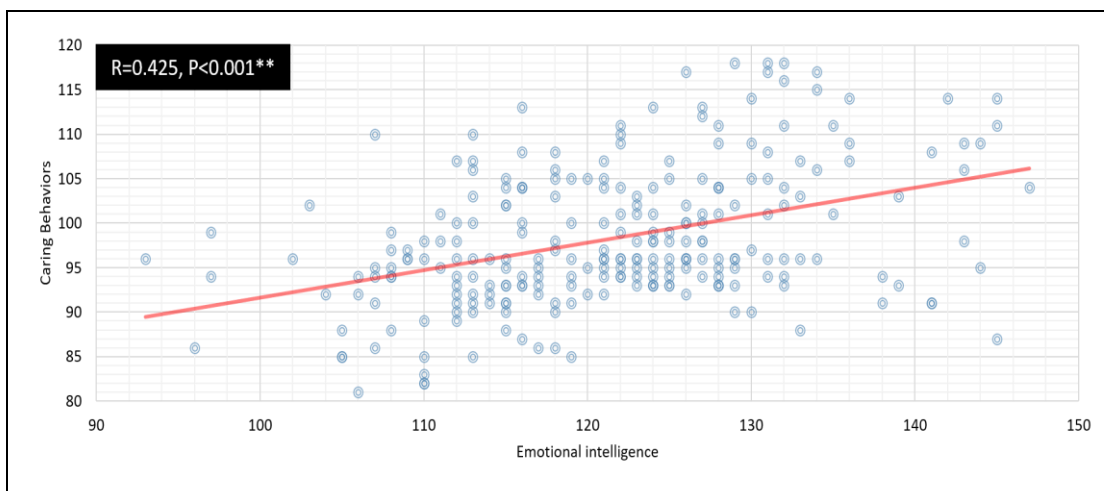
Figure (3) Correlation between emotional intelligence and caring behaviors (n=250

Discussion

Healthcare professionals, particularly nurses, must act impartially and realistically toward their patients and families in order to provide safe and excellent patient care. If they don't, nurses risk exposing patients to negative perspectives including bias, discrimination, transference, and inappropriateness that could seriously harm their experience and quality of life. In order to fulfill their obligation to act impartially and honestly, nurses must carefully balance their feelings. They can accomplish this if they have a sufficient degree of emotional intelligence, communication skills and caring behaviors **(Baker, et al., 2023).**

Therefore, the present study was aimed to examine the relation between emotional intelligence and caring behaviors among staff nurses at Main Mansoura University Hospital.

According to the current study's findings, over half of the staff nurses had a high a high level of emotional intelligence. These findings may be results from that staff nurses are aware of their emotions and others' emotions, have controlling towards their emotions, have empathy towards their surroundings, and are motivated to achieve their goals and good coping mechanisms for handling stress and positive nurses' interactions.

These findings were in the same line with **Sun, et al, (2021)** who examined the relationship between front-line nurses' negative emotions and emotional intelligence during the COVID-19 pandemic and discovered that front-line nurses' EI levels were higher than average.

The results of the current study were consistent with **Khademi, et al., (2021)** who conducted descriptive correlational study about emotional intelligence and quality of nursing care: A need for continuous professional development and reported that the majority of nurses had high

emotional intelligence. The present study results were in the same track a**s Farhana, et al., (2023)** who explored the relationship between job satisfaction and emotional intelligence among nurses at particular tertiary care facilities and discovered that two thirds of the participants possessed high emotional intelligence.

These findings were mismatched to the results of **Kılıç, et al., (2023)** who examined the association between nurses' emotional intelligence and compassion during the COVID-19 pandemic and found that the majority of nurses had a moderate degree of emotional intelligence.

Also, these results were mismatched with **Cichoń, Płaszewska-Żywko & Kózka, (2023)** who studied the correlation between coping mechanisms and emotional intelligence (EI) among adult intensive care unit nurses in Poland and found that around two-thirds of them had a moderate degree of EI.

In contradictory with **Mohamed & Khaled, (2021)** who examined the relationship between nurses' emotional intelligence and stress-reduction techniques, revealing that nearly three-quarters of them lacked emotional intelligence during the COVID-19 pandemic.

The current study's findings indicated that the self-regulation had the highest emotional intelligence dimensions mean these may be due to positive emotions can inspire nurses to think of creative ideas. And are able to display themselves such that people have a positive impression of them. While the least mean score was reported for self – motivation.

The study findings were congruent with **Dag & Can, (2020)** who revealed that the highest mean was for self-regulation, while the lowest was for self – motivation. Findings of the present study also, agreed with Baba, (2020) and reported that the lowest mean was self – motivation.

In contrast to the current study, **Fteiha & Awwad (2020)** who investigated the relationship between emotional intelligence and stress coping style and revealed that the highest mean was self – motivation and empathy while the lowest was self-regulation.

Additionally, findings of the present study contradicted with **Omoronyia, Oyama & Obande, (2020)** who evaluated the emotional intelligence of nurses in the two Federal Neuropsychiatric Hospitals and related variables, and found that self-motivation had the highest mean

The results of the study showed that most staff nurses exhibited high levels of caring behaviors. These findings could be due to the staff nurses placing a higher priority to provide expressive caring behavior, emotional support by ensuring human presence as well as they prioritize human dignity, empathy, and other humanistic care features. They place a higher

importance on humanity than on the technical and professional aspect of caring behavior.

This finding was congruent with **Darvishpour & Mahdavi Fashtami, (2023)** who assessed the caring burden and behavior of nurses who provided care for patients with COVID-19, as well as their association with specific associated variables and reported that most of them exhibited high levels of caring behavior.

Similarly, **Oluma & Abadiga, (2020)** who evaluated caring behavior and related characteristics among nurses working in Jimma University Specialized Hospital, Oromia, Southwest Ethiopia and discovered that most of the staff nurses had a high level of caring behaviors.

Also, these findings were aligned with **Vujanić, Prlić & Lovrić, (2020)** who examine nurses' self-reports of caring behaviors in nurse-patient interactions and found that staff nurses

exhibited a high degree of caring behaviors

On the other hand, these findings were mismatched with **Ahmed, et al, (2022)** investigated the degree and factors influencing caring behaviors among critical care nurses in two Arab nations and discovered that almost half of the study's intensive care unit nurses had lower levels of caring behaviors.

Also, findings of the present study contradicted with **Shakeri, et al., (2021)** who intended to discover whether there was a relationship between pediatric nurses' caring behaviors, ethical intelligence, and work-life balance. And discovered that the nurses' caring behaviors were moderate.

Additionally, the study results were mismatched with **Koon, (2020)** who evaluated how staff nurses viewed the hemodialysis unit as a practice setting, how patients experienced about nurses' caring behaviors, and how satisfied they were and reported that more than

half of the nurses had moderate levels of caring behaviors.

As regards to caring behaviors dimensions, the results of the present study found that the caring behavior dimension's highest mean score was for assurance. This could be as a result of the staff nurses talking with the patient acting at relieving the patient's symptoms. While connectedness had the lowest mean score, which could be as a result of fewer than half of staff nurses involving the patient in the care planning process.

This finding was consistent with **Gaber, et al., (2022)** who investigated the relationship between attitudes regarding homelessness and caring behaviors, and to determine if there were any differences between the groups of women who were homeless, registered nurses, and nursing students. And found that the lowest mean score was for connectedness.

This finding was matched with **Davoodi, et al., (2020)** who explored

the relationship between emergency room nurses' caring behaviors and the quality of nursing work life (QNWL) and revealed the highest mean score was for assurance.

In contrast to the current study **Alikari, et al, (2023)** who examined the caring behaviors of nurses and patients as well as any potential differences between the two groups and found that the assurance of returning to me or the patient voluntarily had the lowest mean score, while the knowledge and skill of treating my patient's information confidentially had the highest mean score. According to the nurses' perspective, this could be explained by the fact that nurses have a greater sense of duty to protect patient information and dignity, and that nursing practice requires certain abilities, efficiency, and safety.

This finding was inconsistent with **Ferede, et al., (2022)** who revealed that highest mean score was for connectedness and the lowest mean score was for knowledge and skill.

As regards to the relation between emotional intelligence with caring behaviors among staff nurses, findings of the current study concluded that there was a statistically significant difference between emotional intelligence and caring behaviors among the studied staff nurses. These findings could be explained by the fact that successful staff nurses in professional and personal life are those who have emotional control, an understanding of others' feelings, the ability to communicate clearly and precisely, the ability to listen intently to others, and the ability to build positive, healthy relationships. This helps to develop and improve the care given, and because of the efficient information sharing between nurses and patients, nurses are more equipped to satisfy the demands of the patients.

These findings were in the same line with, **Taylan, Özkan & Şahin,**

(2021) who evaluated critical-care nurses' moral sensitivity, emotional intelligence, and caring behaviors in a descriptive study and found that emotional intelligence and caring behavior were positively correlated.

Moreover, the study results were matched with **Uludağ & Mumcu, (2023)** who analyzed how nursing care is impacted by cultural and emotional intelligence and found that there was a significant correlation between caring behaviors of nurses with emotional intelligence.

In addition, these findings were similar with **Haflah & Purba, (2022)** who carried out research at the Sumatera Utara Hospital to examine how emotional and spiritual intelligence affect nursing caregiving behavior and concluded that emotional intelligence had a significant effect on nurses' caring behavior.

The study findings congruent with **Demur, Primal & Sari, (2022)** who evaluated how nurses' caring behavior is influenced by emotional intelligence in Bukittinggi City, Indonesia and revealed that emotional intelligence showed a significant association with caring behavior.

Conclusion:

Depending on the findings of the study, it was concluded that emotional intelligence has a positive and significant relationship with caring behavior. As well as positive and significant effect of nurses' emotional intelligence on their caring behavior, stimulates nurses´ decent caring behavior in their practice at Main Mansoura University Hospital. Therefore, more than half of the staff nurses studied have a high level of emotional intelligence and most of the studied staff nurses have a high level of caring behaviors. Additionally, there was a statistically significant correlation between emotional intelligence and caring behaviors among the studied staff nurses.

Recommendations of the present study: -

Recommendation at hospital administration level:

- Include evaluations of caring behaviors and emotional intelligence in the hiring and selection process for nurses.

- Provide staff nurses with opportunities for professional growth and ongoing education to enhance their emotional intelligence and caring behaviors, which will raise the standard of care and services.

- Hire nurses with advanced degrees, strong emotional intelligence, and caring dispositions.

- Include the assessment of staff nurses' emotional intelligence and compassionate behavior in hospital audits and quality improvement initiatives.

Recommendation at educational level:

- Integrate emotional intelligence and caring behaviors as the cornerstones of the nursing profession in nursing curricula to prepare students to the work in the nursing field.

Recommendation for further research:

- Research studies in the future should take into account a more varied participant group, which might include more people from different genders, ages, locations, and practice contexts.

- Assess staff nurses' caring behaviors from the patients' point of view.

- Study emotional intelligence from the viewpoint of upper management.

- Future research will employ qualitative methodologies or a

mix of quantitative and qualitative approaches and techniques to obtain more precise data and more comprehensive insights.

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