# The Relation between Emotional Intelligence, Communication Skills, and Caring

Behaviors among Staff Nurses at Main Mansoura University Hospital





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# **ABSTRACT**

**Background:** Nursing sectors represent the most of health care organizations and have a direct contact with patient and provide full required nursing care in professional manner. Nurses possess abilities like emotional intelligence, communication skills, 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, communication skills and caring behaviors among staff nurses at Main Mansoura University Hospital. Design: A descriptive correlational design was utilized. Sample: 250 staff nurses from inpatient unites at Main Mansoura University Hospital. Tools: Three tools were used for data collection namely, Emotional Intelligence Scale, Health Professionals Communication Skills Scale and Caring Behaviors Inventory. Results: More than half of the studied staff nurses had a high level of emotional intelligence. Most of the studied staff nurses have a high level of communication skills and caring behaviors. Conclusion: The current study concluded that, there's was a statistically significant correlation between emotional intelligence, health professionals' communication skills and caring behaviors among the studied staff nurses at Main Mansoura University Hospital. Recommendations: The hospital manager incorporate emotional intelligence, communication skills 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, communication skills and caring behaviors which will improve the quality of care and services

Keywords: Caring Behaviors, Communication Skills, Emotional Intelligence

# **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 encountered in the workplace can impact nurses from multiple perspectives and might result in positive or negative consequences. Health care professionals' emotions in the workplace are becoming more important because this workforce is a special component of the high caliber of services provided in the healthcare field (Alan, Bacaksiz, Seren & Kurt, 2021).

The definition of emotional intelligence (EI) proposed by several scholars is the capacity to manage pressure and meet environmental demands through non-cognitive skills and capabilities. (EI) is the ability to identify, comprehend, and deliberately control nurses own and others' feelings. EI becomes a key concept because nurses, who have the capacity to comprehend their own

and others' emotions, will be able to manage their negative emotions when interacting with others or in stressful situations. Additionally, it is critical that registered nurses in an organization make appropriate choices when challenged with change (Sudibjo & Sutarii, 2020).

Higher EI results in greater wellbeing and enjoyment, improved work performance, better social engagement, and fewer aggressive behavior. Additionally, it improves mental health, acts as a means of alleviating stress, and is linked with healthier habits like abstaining from alcohol and tobacco use, maintaining a balanced diet, and getting more exercise. Emotionally intelligent nurses are better able to relate to their colleagues and make their workplaces more welcoming and approachable (Acebes-Sánchez, Diez-Vega, Esteban-Gonzalo & Rodriguez-Romo, 2019).

According to Goleman's model identified five components of EI: Self-awareness is the capacity to acknowledge and be mindful of one's thoughts, feelings, and desires as well as how these elements impact others. Self-regulation it

encompasses an ability to restrain emotions and impulses. Motivation is the desire to improve, adapt to the goal of the team or organization, be open to seizing chances, and persevere in the face of setbacks and difficulties. Empathy is the ability to figure out the psychological state experienced in other individuals. Social skills are fundamental to relationship management, interpersonal efficacy, persuasion, appreciating human relations, handling disputes and exhibiting collaborative performance (El Khatib, Almteiri & Al Qasemi, 2021).

As well as Mayer and Salovey (1997) have determined the four key dimensions of EI namely; Self-emotions appraisal dimension measures a nurse's capacity to recognize, comprehend, and articulate their own feelings. It then applies this understanding to produce positive results. The others' emotions appraisal dimension assesses nurses' the skill to identify and understand the emotional states of others (Giao, Vuong, Huan, Tushar & Quan, 2020). The use of emotion dimension assesses a nurse's capacity to access, produce, and utilize emotions to support individual performance. The regulation of emotion dimension is nurse's aptitude to control their emotions in order to produce the desired results, stay composed in the face of psychological discomfort, manage obstacles, and speed their recovery after stressful situations (Alotaibi, Amin, & Winterton, 2020).

The trait model was developed by Petrides and Furnham (2004) and defined EI as a trait that is a pattern of behavior that endures across time, compared to ability, which becomes enhanced with experience and exposure. It is linked to dispositional inclinations, personality traits, and self-efficacy beliefs. It is associated with selfefficacy beliefs, personal properties, dispositional preferences. It consists of fifteen personality dimensions that are categorized into four groups: well-being, self-control, emotionality, and sociability (Suleman, Syed, Mahmood & Hussain, 2020).

Communication skills are defined as skills of listening and expressing oneself in a clear, positive manner in both written and oral medium. Communication skills are including soft competencies like paying attention, empathetic, trust, flexibility, transparency and conciseness, kindness, respect, sharing suggestions, and choosing suitable media, presentation skills and interviewing (Ab Rahman, Mohamed, Nasir & Saidin, 2019).

Effective communication skills among nurses have been associated with better treatment outcomes, a decrease in malpractice lawsuits, and higher patient satisfaction (Przymuszała et al., 2021).

Nurses who demonstrate outstanding communication skills are better able to solve problems, articulate their views, and act both independently and together. These abilities also contribute to concerns like lower levels of stress endured by nurses on the job, higher levels of compliance and better patient care quality (Lufri, Elmanazifa & Anhar, 2021).

Effective communication skills include Teaching and exercising the skills of sending and receiving messages, resolving disagreements, talking and listening clearly, actively focusing on the issue at hand, identifying stress, validating differences, seeking feedback, showing gratitude, and taking responsibility (Jafari, Alami, Charoghchian, Delshad Noghabi & Nejatian, 2021).

Barriers to effective communication skills include physical environment: distracting, noisy, or lacks privacy. Social setting: organizational hierarchy and status issue. Language: Disparities among individuals from different racial and ethnic backgrounds or geographies. Communication medium: the drawbacks of face-to-face interaction over email, paper, and phone (Sole, Klein & Moseley, 2020& Perry, Potter & Ostendorf, 2019).

Effective communication skills are not generic qualities that can be acquired instinctively from one's own home. Effective communication skills are tools which have to be learned and employed in suitable circumstances in order to help nurses develop communication competence for the workplace, which is the key for achievement in the workplace (Al-Musalli, 2019).

Caring is an interpersonal process driven by the need and availability of the nurse to provide care which characterized by intimate interactions, proficient nursing abilities, and a readiness to adhere to ethical values (Putra, Andayani & Ningrum, 2021).

Caring behaviors are defined as a combination of intentional nursing actions and attitudes that aim to relieve patients' distress, anticipate their needs, express patients' care for their well-being and their professional ability (Chen, Chang & Pai, 2018).

The rise in the caring behaviors quality would aid in controlling the illness. improving life quality and avoiding complications. Through the therapeutic relationship that caring fosters, nurses are able to identify patients' troubles come up with solutions, make plans, carry them out, and assess their effectiveness (Karaman, Yerebakan & Cakmak, 2022).

Caring behaviors can be expressed through both practical and expressive actions. Task-focused practical behaviors include upholding the patient's physical surroundings, educating them, and fixing problems. Expressive behaviors include affective components of caregiving, such as providing emotional support, building trust, addressing emotions, being present, exhibiting empathy, respecting privacy, and being aware of the patient's needs (Bowman, 2020).

Caring behaviors might be impacted by different factors such as occupational fatigue/burnout, professional efforts, job and career happiness, shifts in organizational structure and advancement, and occupational contribution. Nurses' quality of caring behaviors is influenced by a variety of factors, including age, sex, work shift, organizational culture, job fulfillment, and working-home harmonization (Shakeri, Atashzadeh - Shoorideh, Varzeshnejad, Svetic Cisic & Oomen, 2021).

The lack caring behaviors can be caused by numerous elements, both organizational and individual, such as work design, leadership style, talents, and skills. Pressure during work hours has an impact on nurses caring behavior due to their increased responsibilities and excessive activity (Babapour, Gahassab-Mozaffari & Fathnezhad-Kazemi, 2022).

A key component in delivering patients high-quality healthcare is fulfilled by nurses. have a major positive impact on satisfaction with care, healthcare organizations' effectiveness, and patient well-being. The viability of healthcare organizations can be significantly impacted by the poor quality of care provided by the nurses. Consequently, it is necessary that nurses who possess the necessary qualities as communication skills and emotional intelligence be hired, educated, and qualified to deliver patient-centered, passionate care (Nair, 2022).

## Aim of the study

This study was aimed to examine the relation between emotional intelligence, communication skills 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 are the communication skills among staff nurses?
- 3. What is caring behaviors level among staff nurses?
- 4.Is there a relation between emotional intelligence, communication skills and caring behaviors among staff nurses?

## Methods

# Research design:

The research method used for this study was descriptive correlational design.

# 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.

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

# 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%

# Tool (II): The Health Professionals Communication Skills Scale (HP-CSS).

It was developed by **Leal-Costa et al.**, **(2016)** consist of 18-item to evaluates the communication skills of the health professionals. It is composed of four dimensions; the empathy (5 items), the informative communication (6 items), the respect and authenticity (3 items), and the social skill or assertiveness (4 items). Respondents rated the items on a 5-point Likert scale ranging from (1) = "Strongly disagree" to (5) = "strongly agree".

### **Scoring system:**

Total score of health professionals communication skills 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%

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

# **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%

# 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  $\alpha$  (alpha) test. The emotional intelligence level had a Cronbach's alpha

value of 0.903, the communication skills of health professionals had a value of 0.898, and the caring behaviors inventory had a value of 0.901.

# Pilot study:

A pilot study carried out on 25 of the staff nurses that 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 selfadministered questionnaires that were given out to the available staff nurses during working hours in morning and afternoon shift. The researcher spent two to three days a week in the aforementioned 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 have completed the questionnaires. The number of collected questionnaire sheets 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 (SP SS, Chicago, IL), the gathered data were arranged, t abulated, and statistically analyzed. The continuous data were presented as mean  $\pm$  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 studied staff nurses. According to this table the mean age of the studied nurses was  $31.8 \pm 7.1$  mean score and the most of them 88.0% were female, while only 12.0% were male. As regard to 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 studied nurses had less than 10 years' experience. This table revealed that, more than two thirds of studied staff nurses (71.6%) were married and less than half of them (44.8%) worked in surgical unite.

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

**Table (3):** Mean and standard deviation of all health professionals communication skills dimensions among studied staff nurses. In this table, the overall means nurse's communication skills score was  $(69.07 \pm 5.94)$  as reported by studied nurses. The table shows the highest mean was  $(23.36 \pm 2.36)$  reported to information

communication and followed by empathy (19.90  $\pm 2.49$ ) mean score respectively. While the least mean score was (12.51 $\pm$ 1.41) and (13.29  $\pm$ 2.40) reported for respect and authenticity and social Skills.

**Table (4):** 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  $98.22 \pm 7.78$  as reported by studied nurses. The table shows the highest mean was  $33.78 \pm 3.24$  reported to assurance and followed by respectfulness and knowledge and skill,  $24.52 \pm 2.61$  and  $20.46 \pm 2.06$  mean score respectively. While the least mean score was  $19.46 \pm 1.95$  reported for connectedness.

**Figure (1):** shows correlation between emotional intelligence and health professionals communication skills of the studied staff nurses. According to this figure, there was a statistically significant correlation between emotional intelligence and health professionals' communication skills among the studied staff nurses (p<0.001\*\*).

**Figure (2):** 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 studied staff nurses (p<0.001\*\*\*).

**Figure (3):** illustrates correlation between health professionals' communication skills and caring behaviors of the studied staff nurses. This figure show that there was a statistically significant correlation between health professionals' communication skills

and caring behaviors among the studied staff nurses (p<0.001\*\*).

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

Characteristics	No	%	
■ Age (Years)			
<b>■</b> 20 − < 30	110	44.0	
■ 30 -< 40	107	42.8	
<b>■</b> 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	
<ul> <li>Educational qualification</li> </ul>			
<ul> <li>Diploma nursing</li> </ul>	119	47.6	
<ul> <li>Technical institute of nursing</li> </ul>	131	52.4	
■ Experience (Years)			

■ 1 -< 10	112	44.8
■ 10 - < 20	81	32.4
<b>■</b> 20 − < 30	51	20.4
■ 30 or More	6	2.4
■ Mean ±SD		18.5 ±8.6
<ul><li>Marital status</li></ul>		
■ Single	53	21.2
<ul><li>Married</li></ul>	179	71.6
<ul><li>Widow</li></ul>	7	2.8
<ul><li>Divorced</li></ul>	11	4.4
<ul><li>Unit</li></ul>		
<ul><li>Surgical</li></ul>	112	44.8
<ul><li>Orthopedics</li></ul>	57	22.8
<ul> <li>Obstetric and gynecological</li> </ul>	46	18.4
<ul><li>Other unites</li></ul>	35	14.0

# (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
<ul> <li>Self – motivation</li> </ul>	5	10 - 25	■ 18.02 ±2.41	5
■ Empathy	5	12 - 25	■ 18.09 ±2.16	4
<ul> <li>Social skills</li> </ul>	8	16 – 38	■ 28.24 ±3.68	2
<ul> <li>Overall emotional intelligence</li> </ul>	33	93 – 151	■ 121.69 ±10.22	

Table (3) Mean and standard deviation of all health professionals communication skills dimensions among the studied staff nurses (n=250)

Health professionals communication skills dimensions	No of tems	Min-max	$Mean \pm SD$	Rank
• Empathy	5	11 – 25	19.90 ±2.49	2
Information communication	6	17 – 30	23.36 ±2.36	1
Respect and authenticity	3	9 – 15	12.51±1.41	4
Social skills	4	7 – 19	13.29 ±2.40	3
Health professionals communication skills total score	18	54 – 84	69.07 ±5.94	

Table (4) 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	$33.78 \pm 3.24$	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) Correlation between emotional intelligence and health professionals communication skills (n=250)

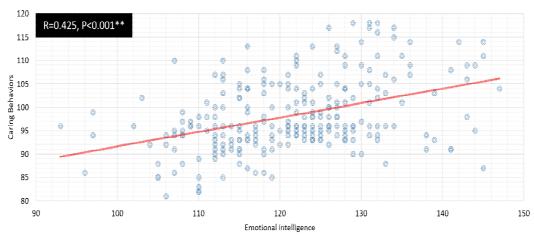


Figure (2) Correlation between emotional intelligence and caring behaviors (n=250)



Figure(3): Correlation between health professionals communication skills and caring behaviors (n=250)

#### Discussion

Ensuring safe and high-quality patient care requires healthcare workers, especially nurses, to act with neutrality and realism toward their patients and families. Otherwise, nurses run a chance of directing patients to unfavorable viewpoints that could have a serious detrimental influence on their experience and health, such as bias, discrimination, transference, and inappropriateness. Nurses must strike a delicate balance between their emotions and their duty to act impartially and fairly. They can accomplish this if they have a sufficient degree of emotional intelligence, communication skills and caring behaviors (Baker, Shosha, Al-Oweidat & Nashwan, 2023).

Therefore, the present study was aimed to examine the relation between emotional intelligence, communication skills 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 Wang, et al. (2023) who examined the associations between emotional intelligence, job performance, and nurses' intents to leave during the COVID-19 epidemic and shown that most of nurses had an outstanding level of emotional intelligence.

The present study results were in the same track as Farhana, Kouser, Ghani, Khatoon & Asghar, (2023) who examined the relation between emotional intelligence and job happiness among nurses at select tertiary care institutions and found that two third of subjects had high level of emotional intelligence.

These findings were dissimilar to the results of Al - Hamdan, etal., (2021) who explored the relation between emotional intelligence and nurse-to-nurse cooperation among Jordanian registered nurses and concluded that most of the nurses had a moderate emotional intelligence level.

In contradictory with **Mohamed & Khaled**, (2021) who analyzed the correlation between nurses' emotional intelligence and their stresscoping strategies and showed that almost three-quarters of them lacked emotional intelligence during the Pandemic COVID-19.

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 Awe, et al, (2023) who carried an assessment of the emotional intelligence traits, emotional intelligence perception, and emotional intelligence-related aspects among nursing team in Northeast England and noticed that the greatest mean was with self-regulation.

In contrast with these findings, a study was done in Turkey by **Karakaş**, **Altun**, **Okanli**, **Polat** & **Olcun**, **(2020)** who explored how nurses providing care for neurological and mental illnesses in a medical facility perceived spiritual support as it relates to their emotional intelligence levels and reported the highest mean was self – awareness while the lowest was social skills.

According to the study's findings, the majority of the staff nurses had high level of communication skills. This could be because nurses reflect ability to comprehend patients' sentiments and demonstrate empathy in their therapeutic relationships with patients, as well as because they simplify information for understanding in their clinical relationships with patients.

These findings were in harmony with **Dalokay & Aydin, (2023)** who examined the association between nurses' mental health, communication skills, and alexithymia and reported that nurses had high levels of communication skills.

These findings were also, confirmed by Rai, Liaqat, Hasan, Anwar & Haider, (2021) who determined the postgraduate residents Rawalpindi Medical University's level of communication skills utilizing the Health Professionals Communication Skills Scale and reported the most of nurses had high levels of communication skills.

These findings were dissimilar to **Joybari**, **Esmaeili**, **Neyshabori** & **Mosavinasab**,(2023) who investigated the connection between the violence that nurses perceive in emergency rooms at Mazandaran University of Medical Sciences and their communication skills and reported that nurses had moderate levels of communication skills, and enhancing their communication skills should be considered by managers.

Findings of the present study contradicted with **Zangeneh,etal, (2021)** who carried out study at the Imam Reza Hospital's educational, therapeutic, and research center in Kermanshah, Iran and investigated the state of nurses' demographic characteristics and communication skills in the healthcare sector and revealed that that nurses' communication skills were moderate.

The current study exhibited that the highest communication skills dimensions, mean score was for information communication. This can be as a result of the staff nurses used their professional competency to provide information to patients in understandable terms. While the lowest mean score was for respect and authenticity.

Thess results were in harmony with **Zhong**, et al, (2023) who translated the Health Professional Communication Skills Scale into Chinese and evaluated its psychometric qualities using a descriptive, cross-sectional, and methodological analysis and reported that information communication was the highest mean and the lowest mean score was for respect and authenticity.

Moreover, Hossny, Gabra & Hussien, (2022) examined the healthcare professionals' communication skills with their patients and discovered that information communication had a high mean score, and the lowest mean score was for respect and authenticity.

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 determined caring burden and behavior among nurses who cared patients with COVID-19, as well as their correlation with certain related variables and reported that most of them exhibited high levels of caring behavior.

Similarly, **Kibret, Tadesse, Debella, Degefa & Regassa, (2022)** who assessed the level and predictive factors of nursing care behaviors among nurses employed by public hospitals in inpatient units in the Eastern Ethiopian area of Harari and conclude that nurses shown high levels of caring behavior.

On the other hand, these findings were mismatched with **Ahmed**, et al, (2022) who examined the degree and factors affecting caring behaviors in two Arab countries' critical care nurses and found that nearly half of the study's ICU nurses exhibited decreased levels of caring behaviors.

Also, findings of the present study contradicted with **Fitriani**, **Yetti & Kuntarti**, **(2019)** who described how nurses' caring behavior was related to their workload and their commitment in delivering nursing services and reported that more than fifty percent of the nurses staffing at X Hospital in Indonesia had poor levels of caring behavior.

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 **Naoum**, **et al**, **(2022)** who explored the relation between nursing staff members' perceived caring behaviors and their reported musculoskeletal problems in Greek Hospitals and revealed that the lowest mean score was for connectedness.

This finding was matched with **Davoodi**, **Azarsa**, **Shahbazpour**, **Sokhanvar** & **Ghahramanian**, **(2020)** who examined the correlation between the caring behaviors of ER nurses and their quality of nursing work life (QNWL) and revealed the highest mean score was for assurance.

In contrast to the current study Alikari, et al, (2022) who investigated the caring behaviors of both nurses and patients, as well as any potential discrepancies between the two groups and revealed that highest mean score was for knowledge and skill and the lowest mean score was for assurance.

This finding was inconsistent with **Hicks**, (2021) who conducted quantitative, cross-sectional survey, correlational design study identified interrelationships among compassion fatigue, compassion satisfaction, and caring behaviors. and reported that highest mean score was for respectfulness.

Regarding personal characteristic, results of this study disclosed that staff nurses' gender (female more than male) had a statistically significant relation with emotional intelligence. This may be due to the female brain having more developed emotional processing regions than the male brain. Additionally, women typically exhibit higher levels of empathy and compassion as well as higher social and emotional intelligence. Educational qualification and years of experience of the staff nurses had a statistically significant with emotional relation intelligence, communication skills, and caring behaviors. Educational background and long work experience may allow nurses to experience a wider range of situations and have a deeper comprehension of what it means to be a caregiver and enhance nursing skills which reflected on improving the nursing care services which has an effect on high work quality.

These results were supported by the results of **Shokry**, **El Guindy**, **Abozied & Hassan**, **(2023)** which conducted at Beni-Suef University Hospital, and they analyzed the association between geriatric patient safety practices and nurses' emotional intelligence and found that there were statistically significant correlations between overall emotional intelligence and nurses' qualifications and gender.

In addition, these findings were consistent with **Gautam & Khurana**, (2019) who explored how demographic factors, including gender, education level, and total job experience, affected emotional intelligence and reported that emotional intelligence is significantly influenced by gender and work experience.

These results were incongruent with **Thapa**, **Bhatta**, **Khanal & Chaudhary**, **(2021)** who assessed health care personnel emotional intelligence in a tertiary level hospital. And reported that there was no association between EI and working experience.

The findings also were confirmed by Raeissi, et al, (2022) who assessed the association between communication skills and emotional intelligence among nurses in five hospitals affiliated to Ardabil University used descriptive-analytic cross-sectional study and reported that there was a significant difference in demographic characteristics work experience and education level between nurses' communication skills.

These findings were in inconsistent with Pangh, Jouybari, Vakili, Sanagoo & Torik, (2019) who studied how reflection affected emergency department nurses' communication skills with patients. And revealed that there was no significant difference in demographic characteristics work experience and education between nurses' communication skills.

Also, this finding was agreed with **Salimi & Tarbiat**, (2021) who analyzed the aspects that influence caring behaviors and their importance in critical care units and reported that there was a relation between job experience, and level of education with caring behaviors of nurses.

Findings of the present study were dissimilar with **Kostich**, (2020) who examined how staff nurses' assessments of nurse managers' compassionate actions relate to patients' experiences and concluded that there was no statistically significant correlation between education level and years of experience with caring behavior.

As regards to the relation between emotional intelligence, communication skills, with caring behaviors among staff nurses, findings of the current study concluded that there was a significant statistically difference emotional intelligence, communication skills 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.

This result was supported by **Necmettin**, (2021) who examined the association between healthcare personnel' emotional intelligence and communication skills. It has been revealed that communication skills and emotional intelligence have a positive and significant relationship.

Furthermore, **Segers, (2023)** who assessed how interpersonal communication skills is perceived and how it affects emotional intelligence and engagement at work and concluded that there was a positive relation between emotional intelligence and communication skills.

In accordance with Giménez-Espert, Castellano-Rioja & Prado-Gascó, (2020) who conducted cross-sectional study to assess the relationship and moderating impact of organizational characteristics on nurses' attitudes on emotional intelligence, empathy, and communication skills and found that emotional intelligence had a significant relationship with communication skills.

Also, **Taylan, Özkan & Şahin, (2021)** who conducted a descriptive study to evaluate the moral sensitivity, emotional intelligence, and caring behaviors of critical-care nurses and revealed that caring behavior showed a positive relation with the emotional intelligence.

In addition, these findings were similar with **Haflah & Purba**, (2022) who conducted at the Universities Sumatera Utara Hospital to analyze the impact of emotional and spiritual intelligence on nursing caring behavior and concluded that emotional intelligence had a significant effect on nurses' caring behavior.

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

Also, the study findings were matched with Zare, Farokhzadian, Nematollahi, Miri & Foroughameri, (2020) who conducted study assess the impact of training in therapeutic communication skills on the caring behaviors of ICU nurses in hospitals associated with Yazd University of Medical Sciences in the center of Iran and reported that communication skills had a significant difference with caring behavior.

Moreover, the study results are in the same line with Hong & Han, (2021) who identified how compassion competency influences the relationship between clinical nurses' caring behavior and communication skills and concluded that

communication skills had positive relation with caring behavior.

Additionally, these results were agreed with **Kirca & Bademli, (2019)** who investigated the relation between the caring behaviors and communication skills of nurses employed at Akdeniz University Hospital and found that there was a correlation between communication skills and care behaviors of nurses.

#### **Conclusion:**

Depending on the findings of the study, it was concluded that there was a statistically significant correlation between emotional intelligence, health professionals' communication skills and caring behaviors among the studied staff nurses.

### Recommendations of the present study: -

Recommendation at hospital administration level:

- Incorporate emotional intelligence, communication skills 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, communication skills and caring behaviors which will improve the quality of care and services.
- Develop mentoring and coaching programs that promote the use of emotional intelligence, communication skills and caring behaviors among staff nurses. To raise nurses' understanding and awareness of the importance of these variables, lectures and seminars can be used.
- Recruit nurses with high educational qualifications with higher levels of emotional intelligence, communication skills and caring behaviors.
- Incorporate in hospital audits and quality improvement efforts the evaluation of emotional intelligence, communication skills and caring behaviors levels of staff nurses.
- Develop nurses' emotional intelligence ability to develop their social skills, empathy, and self
   motivation by head nurses coaching.
- Recommendation at educational level:
- Integrate the emotional intelligence, communication skills and caring behaviors as the cornerstones of the nursing profession in nursing curricula to prepare students to the work in the nursing field.

 Develop specific learning activities to prompt nursing students to practice online emotional intelligence, communication skills and caring behaviors themselves (e.g., case studies, collaborative projects, online simulations, role plays). These are indeed important must-haves as they reflect much of the image and reputation of the organizations and industries where these graduates work.

# Recommendation for further research:

- Future research studies should consider a more diverse group of participants might be more inclusive of gender, age, geographic location, and practice settings.
- Examine the caring behavior of staff nurses from the perspective of the patients.
- Investigate emotional intelligence and communication skills from the perspective of top-level management.
- Future studies use qualitative methods or a combination of both quantitative and quantitative techniques and approaches to get more accurate data and expanded findings.
- Replicate the study with a larger sample of nurses could be conducted to possibly provide more generalizable results.

# References:

- Ab Rahman, F., Mohamed, A. H., Nasir, N. S. A., & Saidin, K. (2019). Exploring Perceptions of Employers on Communication Skills among Fresh Graduates. *Practitioner Research*, 1, 69-85.
- Acebes-Sánchez, J., Diez-Vega, I., Esteban-Gonzalo, S., & Rodriguez-Romo, G. (2019). Physical Activity and Emotional Intelligence among Undergraduate Students: A Correlational Study. *BMC Public Health*, 19(1), 1-7.
- Ahmed, F. R., Saifan, A. R., Dias, J. M., Subu, M. A., Masadeh, R., & AbuRuz, M. E. (2022). Level and Predictors of Caring Behaviors of Critical Care Nurses. *BMC Nursing*, 21(1), 1-8.
- Alan, H., Bacaksiz, F. E., Seren, A. K. H., & Kurt, H. A. (2021). Evaluating the Relationship Between Burnout Levels and Compassion Fatigue, Emotional Intelligence, and Communication Skills of Organ Transplant Coordinators. *In Transplantation Proceedings*, 53, (2), 590-595.

- Al Hamdan, Z. M., Alyahia, M., Al Maaitah, R., Alhamdan, M., Faouri, I., Al Smadi, A. M., & Bawadi, H. (2021). The Relationship Between Emotional Intelligence and Nurse-Nurse Collaboration. *Journal of Nursing Scholarship*, 53(5), 615-622.
- Alikari, V., Gerogianni, G., Fradelos, E. C., Kelesi, M., Kaba, E., & Zyga, S. (2022). Perceptions of Caring Behaviors Among Patients and Nurses. *International Journal of Environmental Research And Public Health*, 20(1), 1-11.
- **Al-Musalli, A. (2019).** Rethinking Business Communication Skills Education: Are Communication Courses Preparing Students for The Workplace?. *College Quarterly*, 22(2), 1-20.
- Alotaibi, S. M., Amin, M., & Winterton, J. (2020). Does Emotional Intelligence and Empowering Leadership Affect Psychological Empowerment and Work Engagement?. Leadership & Organization Development Journal, 41(8), 971-991.
- Awe, A. O., David-Olawade, A. C., Ayodele-Awe, I., Feng, H., Odetayo, A., Afolalu, T. D., ... & Olawade, D. B. (2023). Predictors and Influencing Factors of Emotional Intelligence Among Nurses in the Northeast England, United Kingdom. Journal of Education and Health Promotion, 12(1), 236.
- Babapour, A. R., Gahassab-Mozaffari, N., & Fathnezhad-Kazemi, A. (2022). Nurses' Job Stress and Its Impact on Quality of Life and Caring Behaviors: A Cross-Sectional Study. *BMC Nursing*, 21(1), 1-10.
- Baker, T. A., Shosha, G. A., Al-Oweidat, I., & Nashwan, A. J. (2023). The Relationship between Emotional Intelligence and Organizational Commitment among Nurses Working in Governmental Hospitals in Jordan. *BMC Nursing*, 1-12.
- Bowman, C. L. (2020). Teaching Associate Degree in Nursing Students Caring Behaviors Using High-Fidelity Simulation: A Basic Qualitative Study (Doctoral Dissertation, Capella University). Pp: 9-10.
- Chen, S. Y., Chang, H. C., & Pai, H. C. (2018). Caring Behaviors Directly and Indirectly Affect Nursing Students' Critical Thinking. *Scandinavian Journal of Caring Sciences*, 32(1), 197-203.

- Cho, H. K., & Kim, B. (2022). Effect of Nurses' Grit on Nursing Job Performance and the Double Mediating Effect of Job Satisfaction and Organizational Commitment. *Healthcare*. 10(2),1-11.
- Dalokay, E. B., & Aydin, A. (2023). The Relationship Between Alexithymia, Communication Skills and Mental Well-Being of Nurses' In Turkey: A Cross-Sectional Study. *Archives of Psychiatric Nursing*, 43, 81-86.
- Darvishpour, A., & Mahdavi Fashtami, S. (2023). Investigation of Caring Behavior and Caring Burden and Their Associated Factors among Nurses Who Cared for Patients With COVID-19 in East Guilan, The North of Iran. Nursing Research and Practice, Y-Y.
- Davoodi, A., Azarsa, T., Shahbazpour, M., Sokhanvar, Z., & Ghahramanian, A. (2020). Relationship between Quality of Work Life and Caring Behaviors among Emergency Nurses. *International Journal of Workplace Health Management*, 13(6), 687-701.
- **Demur, D. R. D. N., Primal, D., & Sari, Y. P.** (2022). Emotional intelligence stimulates nurses' decent caring behavior in nursing practice in Bukittinggi City, Indonesia: English. *ABCS Health Sciences*, 47, 1-7.
- El Khatib, M., Almteiri, M., & Al Qasemi, S. A. (2021). The Correlation between Emotional Intelligence and Project Management Success. *Ibusiness*, 13(01), 18-29
- Farhana, A., Kouser, S., Ghani, M., Khatoon, T., & Asghar, R. (2023). Effect of Emotional Intelligence on Job Satisfaction among Nurses: Descriptive Study. *Pakistan Journal of Medical & Health Sciences*, 17(06), 127-129.
- Fitriani, R., Yetti, K., & Kuntarti, K. (2019).

  Analysis of Workload and Occupational Commitment: Their Relationship to the Caring Behaviors of Nurses in A Hospital. *Enfermeria clinica*, 29, 634-639.
- Gautam, A., & Khurana, C. (2019).

  Demographic Variables as Indicators of Emotional Intelligence: A Study of Selected Enterprises of Uttarakhand. *Journal of Management*, 6(1), 11-20.

- Giao, H. N. K., Vuong, B. N., Huan, D. D., Tushar, H., & Quan, T. N. (2020). The Effect of Emotional Intelligence on Turnover Intention and The Moderating Role of Perceived Organizational Support: Evidence from The Banking Industry of Vietnam. Sustainability, 12(5), 1-25.
- Giménez-Espert, M. D. C., Castellano-Rioja, E., & Prado-Gascó, V. J. (2020). Empathy, emotional intelligence, and Communication in Nursing: The Moderating Effect of the Organizational Factors. *Revista Latino-Americana De Enfermagem*, 28,^-\.
- Haflah, N., & Purba, J. M. (2022). The Influence of Emotional and Spiritual Intelligence on Nurses' Caring Behavior at the Universitas Sumatera Utara Hospital. Jurnal Keperawatan Komprehensif (Comprehensive Nursing Journal), 8(1).1-10
- Hicks, L. D. (2021). Memphis Police CIT Compassion Fatigue, Compassion Satisfaction, and Caring Behaviors: A Cross Sectional Study (Doctoral dissertation, University of Phoenix). pp: 139-140.
- Hong, M., & Han, S. (2021). Relationship of communication competence with caring behavior in clinical nurses: the mediating effect of compassion competence. *Journal of Korean Academy of Fundamentals of Nursing*, 28(4), 411-420.
- Hossny, E. K., Gabra, S. F., & Hussien, R. H. (2022). Assessment of Professional Communication Skills of Healthcare Professionals toward the Patients. *Assiut Scientific Nursing Journal*, 10(30), 241-252.
- Jafari, A., Alami, A., Charoghchian, E., Delshad Noghabi, A., & Nejatian, M. (2021). The Impact of Effective Communication Skills Training on the Status of Marital Burnout among Married Women. Bmc Women's Health, 21(1), 1-10.
- Joybari, A. L., Esmaeili, R., Neyshabori, M., & Mosavinasab, S. N. (2023). Relationship between Nurses' Communication Skills and the Violence They Experience in Emergency Departments Affilated with Mazandaran University of Medical Sciences. Journal of Mazandaran University of Medical Sciences, 32(218), 73-79.

- Karakaş, S. A., Altun, Ö. S., Okanli, A., Polat,
  H., & Olcun, Z. (2020). A Study to
  Determine the Relationship between the
  Emotional Intelligence Levels and
  Perceptions of Spiritual Support of Nurses
  Working in A Hospital for Psychiatric and
  Neurological Diseases in Turkey. Archives of
  Psychiatric Nursing, 34(1), 64-69.
- Karaman, F., Yerebakan, A., & Cakmak, S. (2022). Nursing Students' Perceptions of Their Caring Behaviors and the Factors Affecting Their Perceptions. *Bangladesh Journal of Medical Science*, 21(3), 639-644.
- Kibret, H., Tadesse, B., Debella, A., Degefa, M., & Regassa, L. D. (2022). Level and Predictors of Nurse Caring Behaviors among Nurses Serving in Inpatient Departments in Public Hospitals in Harari Region, Eastern Ethiopia. *BMC Nursing*, 21(1), 1-7.
- **Kirca, N., & Bademli, K. (2019).** Relationship between Communication Skills and Care Behaviors of Nurses. *Perspectives in psychiatric care*, *55*(4), 624-631.
- Kostich, K. (2020). The Relationship Between Staff Nurses' Perceptions of Nurse Manager Caring Behaviors and Patient Experience: A Correlational Study. University of Missouri-Kansas City. (Dissertation in Doctor of Philosophy Nursing). Pp: 70-74.
- Leal-Costa, C., Tirado-González, S., Rodríguez-Marín, J., & vander-Hofstadt-Román, C. J. (2016). Psychometric Properties of the Health Professionals Communication Skills Scale (HP-CSS). Int. J. Clin. *Health Psychol*, 16, 76–86.
- Lufri, L., Elmanazifa, S., & Anhar, A. (2021).

  The Effect of Problem-Based Learning Model in Information Technology Intervention on Communication Skills. *Ta'dib*, 24(1), 46-52.
- Mohamed, H., & Khaled, A. (2021).

  Relationship Between Emotional Intelligence and Coping Patterns with Stress among Nurses during COVID-19 Pandemic.

  Egyptian Journal of Health Care, 12(2), 1705-1719.
- Nair, D. (2022). The Impact of a Nursing Emotional Intelligence Program to Improve Patient Satisfaction. *Journal for Nurses in Professional Development*, 39(3)130-135.

- Naoum, S., Mitseas, P., Koutserimpas, C., Spinthouri, M., Kalomikerakis, I., Raptis, K., ... & Konstantinidis, T. (2022).

  Musculoskeletal Disorders and Caring Behaviors among Nursing Staff in Greek Hospitals: A Prospective Multicenter Study. *Maedica*, 17(1), 52.63.
- Necmettin, G. Ü. L. (2021). Relationship between Emotional Intelligence and Communication Skills of Healthcare Workers. Akademik Araştırmalar ve Çalışmalar Dergisi (AKAD), 13(25), 457-465
- Pangh, B., Jouybari, L., Vakili, M. A., Sanagoo, A., & Torik, A. (2019). The Effect of Reflection on Nurse-Patient Communication Skills in Emergency Medical Centers. *Journal of caring sciences*, 8(2), 75.-81.
- Perry, A. G. G., Potter, P. A., & Ostendorf, W. (2019). Nursing Interventions & Clinical Skills E-Book. Elsevier Health Sciences. pp: 10
- Przymuszała, P., Cerbin-Koczorowska, M., Marciniak-Stępak, P., Zielińska-Tomczak, Ł., Piszczek, M., Jasiński, J., & Marciniak, R. (2021). Affective and Cognitive Components of Students' Attitudes Towards Communication Learning-Validation of the Communication Skills Attitude Scale in A Cohort of Polish Medical Students. BMC Medical Education, 21(1), 1-14.
- Putra, K. R., Andayani, T., & Ningrum, E. H. (2021). Job Satisfaction and Caring Behavior Among Nurses in A Military Hospital: A Cross-Sectional Study. *Journal of Public Health Research*, 10(2), 9-1.
- Raeissi, P., Zandian, H., Mirzarahimy, T., Delavari, S., Moghadam, T. Z., & Rahimi, G. (2022). Relationship between Communication Skills and Emotional Intelligence among Nurses. Nursing Management, 29(4), 31-35
- Rai, S. I., Liaqat, N., Hasan, S., Anwar, A., & Haider, M. (2021). Communication skills of Postgraduate residents using Health Professionals Communication Skills Scale. Resident Journal of Rawalpindi Medical University, 2(1).
- Salimi, S., & Tarbiat, S. (2021). Predictors and Priority of Caring Behaviors in Intensive Care Units. *Nursing in Critical Care*, 26(6), 523-530.

- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and Validation of a Measure of Emotional Intelligence. *Personality and individual differences*, 25(2), 167-177.
- Segers, S. K. (2023). The Perceived Quality of Interpersonal Communication and the Role it Plays in Emotional Intelligence and Workplace Engagement (Doctoral dissertation, Keiser University). Pp:.90-95.
- Shakeri, F., Atashzadeh Shoorideh, F., Varzeshnejad, M., Svetic Cisic, R., & Oomen, B. (2021). Correlation between Ethical Intelligence, Quality of Work Life and Caring Behavior of Pediatric Nurses. *Nursing Open, 8*(3), 1168-1174.
- Shokry, A. G., El Guindy, H. A., Abozied, A., & Hassan, S. (2023). The Relationship between Nurses' Emotional Intelligence and their Safety Practice for Elderly Patients. NILES journal for Geriatric and Gerontology, 6(1), 13-26.
- Sole, M. L., Klein, D. G., & Moseley, M. J. (2020). *Introduction to Critical Care Nursing E-Book*. Elsevier Health Sciences. pp7
- Sudibjo, N., & Sutarji, T. (2020). The Roles of Job Satisfaction, Well-Being, and Emotional Intelligence in Enhancing the Teachers' Employee Engagements. *Management Science Letters*, 10(11), 2477-2482.
- Suleman, Q., Hussain, I., Syed, M. A., Parveen, R., Lodhi, I. S., & Mahmood, Z. (2019). Association between Emotional Intelligence and Academic Success Among Undergraduates: A Cross-Sectional Study In KUST, Pakistan. *Plos One, 14*(7), 1-22.
- Taylan, S., Özkan, İ., & Şahin, G. (2021). Caring Behaviors, Moral Sensitivity, and

- Emotional Intelligence in Intensive Care Nurses: A Descriptive Study. *Perspectives in psychiatric care*, *57*(2), 734-746.
- Thapa, P., Bhatta, R., Khanal, J., & Chaudhary, A. (2021). Emotional Intelligence among the Health Care Providers Working in a Tertiary Level Hospital. Current Issues of Medicine and Management, (2 (22)), 46-53.
- Wang, C. Y., Lin, Y. K., Chen, I. H., Wang, C. S., Peters, K., & Lin, S. H. (2023). Mediating Effect of Job Performance Between Emotional Intelligence and Turnover Intentions among Hospital Nurses During The COVID-19 Pandemic: A Path Analysis. *Collegian*, 30(2), 247-253.
- Wu, Y., Larrabee, J. H., & Putman, H. P. (2006). Caring Behaviors Inventory: A Reduction of the 42- Item Instrument. *Nursing Research*, 55(1), 18-25.
- Zangeneh, A., Lebni, J. Y., Azar, F. E. F., Sharma, M., Kianipour, N., Azizi, S. A., ... & Ziapour, A. (2021). A Study of The Communication Skills in Health Care and the Role of Demographic Variables (A Case Study of the Nurses at The Educational, Therapeutic and Research Center of Imam Reza Hospital, Kermanshah, Iran). Journal of Public Health, 29, 361-367.
- Zare, F., Farokhzadian, J., Nematollahi, M., Miri, S., & Foroughameri, G. (2020). Therapeutic Communication Skills Training: An Effective Tool to Improve the Caring Behaviors of ICU Nurses. *BioRxiv*, 2,1-16.
- Zhong, X., Tang, F., Lai, D., Guo, X., Yang, X., Hu, R., ... & Leal-Costa, C. (2023). The Chinese version of the Health Professional Communication Skills Scale: Psychometric evaluation. Frontiers in Psychology, 14.1.