The Outcome of Emotional Intelligence Training Program on Stress Reduction among Nursing staff in a Military Hospital A Quasi-Experimental Study

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Abstract

Background: Emotional Intelligence (EI) helps nurses manage stress by improving emotional awareness and control. It enhances empathy, communication, and coping skills in high-pressure healthcare environments. Nurses become better equipped to handle emotional demands and workplace challenges. This leads to reduced stress, improved well-being, and higher job satisfaction. **Aim:** This study aimed to evaluate the outcome of emotional intelligence training program in reducing stress levels among military nursing staff. **Design:** A quasi-experimental study design with pre-post assessment was used to achieve the aim of the study. **Setting:** The study was conducted at the Military Hospital in Egypt. **Sample:** A convenient sample of (n=165) nurses includes nurses working at the Military Hospital. **Tools:** Three tools were used, including **Tool 1:** Socio-demographic Characteristics of Nurse**s. Tool 2:** Schutte Self-Report Emotional Intelligence Test (SSEIT) .**Tool 3:** Perceived Stress Scale. **Results**: Based on the findings of the present study that 53.9% of the studied nurses were classified within the low emotional intelligence category, pre-training program. Following, 81.2% demonstrated high levels of emotional intelligence post-training program. Additionally, 55.8% of the nurses reported high levels of perceived stress pre-training program, whereas 50.9% reported low levels of perceived stress post-training program. **Conclusion:** The current study concluded that more than half of the studied nurses demonstrated low emotional intelligence before the training program, which dropped to less than one-fifth post-training program. More than half experienced high levels of perceived stress pre-training program, while a few of them were classified as having low stress post-training program. There was a statistically significant positive correlation was also observed between scores on the Schutte Self-Report Emotional Intelligence Test (SSEIT) and the Perceived Stress Scale. **Recommendation:** Design structured ongoing emotional intelligence training programs into professional development and orientation sessions for nursing staff.

Keywords: Emotional Intelligence, Nursing staff, Stress, Training Program.

INTRODUCTION

Emotional intelligence is vital for both the performance and well-being of nurses. It includes abilities like recognizing one's emotions, managing emotional responses, showing empathy, and maintaining effective social interactions, all critical in emotionally demanding healthcare environments. Nurses with strong emotional intelligence are more capable of managing stress, communicating effectively, and maintaining positive relationships with patients and team members. Therefore, enhancing emotional intelligence through training can improve care quality, lower burnout rates, and create a more positive and resilient workplace culture **(Heydarifard et al. 2025).**

Perceived stress refers to the level of stress an individual feels in response to situations they interpret as overwhelming or challenging. It is a subjective measure, influenced by a person's thoughts, coping abilities, and emotional responses rather than

the actual nature of the stressor. In nursing, perceived stress is often heightened due to heavy workloads, emotional strain, and constant exposure to critical patient care. High levels of perceived stress can negatively impact mental health, job performance, and overall well-being. Assessing and managing perceived stress is therefore essential to maintaining a healthy and effective nursing workforce **(Li et al. 2025).**

Emotional intelligence training programs, in particular, have gained attention for their positive impact on nurses' ability to manage stress, improve interpersonal relationships, and enhance patient care. Through workshops, role-playing, reflective exercises, and interactive sessions, such programs help nurses build self-awareness, empathy, and emotional regulation skills. The outcome is a more resilient and emotionally balanced nursing workforce, better equipped to handle the pressures of healthcare environments. Overall, training programs are vital in ensuring nurses maintain high standards of care, adapt to evolving healthcare demands, and sustain their well-being and job satisfaction **(Kawashima et al. 2025).**

Significance of the study

Globally, 70% of nurses report moderate to high levels of occupational stress ***(Sharplin et al., 2025).*** For example, a study in Nigeria demonstrated that following an Emotional Intelligence (EI) training program, stress levels among participating nurses decreased by 33%. These findings underscore the importance of enhancing EI among nursing staff, as it not only improves mental well-being but also positively impacts job satisfaction, staff retention, and the quality of patient care ***(Awe et al., 2023).***

In Egypt, a study by ***Zina et al. (2024),*** entitled "The Relation between Emotional Intelligence, Communication Skills, and Caring Behaviors among Staff Nurses at Main Mansoura University Hospital," found that 55% of the studied staff nurses had a high level of emotional intelligence, while 92% demonstrated high levels of communication skills and caring behaviors. These results suggest a strong association between EI and professional competencies critical to nursing practice in the Egyptian healthcare context. Therefore, this study aims to evaluate the outcome of emotional intelligence training program on stress reduction among nursing staff in a military hospital.

AIM OF THE STUDY

The present study was conducted to evaluate the outcome of emotional intelligence training program in reducing stress levels among military nursing staff.

Objectives:

1.To assess the baseline levels of stress and emotional intelligence among military nursing staff.

2.To implement an emotional intelligence training program tailored to the needs of military nursing staff.

3.To measure the effect of the training program on stress reduction and emotional intelligence levels post-intervention.

4.To identify correlations between emotional intelligence improvements and stress reduction.

Research question:

Does participation in an emotional intelligence training program for military nursing staff, compared to no such training, lead to a reduction in stress levels?

Research Design: -

A quasi-experimental study design with pre-post assessment was used to achieve the aim of the study.

Research Setting: -

This study was conducted at a Military Hospital, one of the major military healthcare facilities in Egypt. The hospital has various departments, including medical, surgical, emergency, intensive care, and outpatient clinics. It also serves as a training and educational center for medical and nursing staff, with a nursing workforce of approximately 900 personnel.

Study population:

A convenient sample of (n=165) nurses includes nurses working at the Military Hospital.

Inclusion Criteria: Participants must be active-duty military nursing staff aged 22–50 years, with a minimum of one year of professional experience in a military healthcare setting, willing to provide informed consent, and available to attend all sessions of the emotional intelligence training program.

Tools of the Study: -

A self-administered questionnaire was used in the collection of data for this study. It comprised the following tools.

Tool 1: Socio-demographic Characteristics of Nurses: This section gathered comprehensive personal and professional data from military nursing staff to provide a detailed understanding of the participants and their work environment. It included age, marital status, residence, years of professional experience, current rank, department of assignment, and military hospital affiliation. Additional institutional and operational variables were recorded, such as hospital service type, total nursing staff number, patient capacity, number of beds, working hours per shift, and patient-to-nurse ratio.

Tool 2: Schutte Self-Report Emotional Intelligence Test (SSEIT): This 33-item self-report scale was developed by ***Schutte et al. (1998)*** to measure emotional intelligence. It assessed four dimensions of EI, namely Perception of Emotion, Managing Own Emotions, Managing Others' Emotions, and Utilization of Emotion. A validated Arabic version was used. The responses are on a five-point Likert scale, "strongly agree" to "strongly disagree." These are scored from | to 5 with reverse scoring for items 5, 28, and 33. The total score ranges from 33 to 165, with higher scores indicating higher El. The scores of each dimension and the total scale were converted into percentage scores.

Scoring system:

High Emotional Intelligence > 75%

Moderate Emotional Intelligence 75% - 50%

Low Emotional Intelligence <50%

Tool 3: Perceived Stress Scale: it was developed ***by Cohen et al. (1983)*** and adopted from ***Eltrass et al. (2022)*** and consisted of a 10-item tool. It was the most widely used psychological instrument for measuring the perception of stress. It assessed the degree to which situations in one's life are considered stressful. Its items were designed to gauge how unpredictable, uncontrollable, and overloaded respondents find their lives. The responses are on a 5-point Likert scale from "never" to "very often" according to the frequency at which the situation in the item is perceived as stressful. The responses were scored from 0 to 4, respectively. The scoring is reversed for the four positively stated items (items 4, 5, 7 & 8). The scores of the ten items were summed to yield a total score ranging from 0 to 40, with higher scores indicating more perceived stress.

Scoring system:

High perceived Stress > 75%

Moderate Perceived Stress 75% - 50%

Low Perceived Stress <50%

Validity:

The study tools were tested for validity (face and content validity). Face validity aimed to determine whether the tools measure what they were supposed to measure. Content validity was conducted to determine whether the content of the tools covered the aim of the study. It was measured by a jury of five experts in the field of Nursing Administration at the Military Medical Academy to test its content validity. The experts reviewed the tool for clarity, relevance, accuracy, comprehensiveness, simplicity, and applicability, and necessary modifications were made.

Reliability:

Alpha Cronbach's was used to determine the internal reliability of the tools. Reliability of

Tool 2 was tested to determine the extent to which the tool's items are related to each other. Table (1) shows Alpha Cronbach's test which used to measure the internal consistency (Reliability of the used tool or instrument) the reliability score of tool as above is (0.707, 0.824 and 0.797) for respiratory pattern related parameters, Schutte self-report emotional intelligence test, perceived stress scale and total questionnaire respectively, where the minimum reliability coefficient we need is 60%, so is the reliability coefficient for all questions.

Table (1): Cronbach's Alpha reliability analysis.

Tool	Reliability Cronbach's Alpha
Schutte's self-report emotional intelligence **test**	0.707
Perceived stress scale	0.824
Total questionnaire	0.797

Pilot Study:

A pilot study was carried out on 10% (16) of the study subjects to test the applicability, feasibility, and practicality of the tools, and then no modifications were made according to the results of the pilot study. So, the pilot study was included in the study.

Field work:

The research was conducted through four phases as follows:

Assessment Phase: After securing the official approvals for conducting the study, the researcher met with the nursing staff to explain the aim of the study and the data collection procedure. At the beginning, the researcher obtained approval, and official permission was obtained from the director of the Military Hospital to collect data. Consequently, they explained the aim of the study, the duration of data collection, the sample size, and how to collect the data from the studied nurses.

Planning phase (Program Design): The researcher prepared the EI program based on a review of the related literature. The program design included its main aim, objectives, content, methods of teaching, places of training and teaching aids.

Implementation phase:

The pre-test phase was done before the training program implementation. After preparing the tool, the researcher interviewed the nurses conference Hall at the Military Hospital, distributed the pretested questionnaire sheet after clearly explaining the way to fill it out. The studied nurses were handed the forms to fill them, and the researcher checked for their completeness. The collected data was considered the baseline or pretest data. The training program provided to the studied nurses in one group each for each session, consisted of eight sessions, time available at the early shift was on Thursday from 8.00 am to 10 am.

This training program has a general objective and is divided into sessions, each of which has a set of specific objectives. This was achieved through several teaching methods such as brainstorming, lecture, discussion, and providing examples. Data shows, videos, role play, and pictures were used as media. Communication skills, assertiveness skills, responding to criticism skills, role played, and videotaped. At the end of each session summary, feedback, and further clarifications were provided for vague items, and homework for the next session.

The content of the intervention program sessions was as follows: The nurses were enrolled for 9 sessions, each session lasting for 120 minutes, once weekly. Based on the results obtained from the assessment tools and review of literature, the program content was developed by the researcher in the form of a booklet, which was distributed to nurses in the first session. The sessions of the emotional intelligence program focused on:

The 1st session: Introduction about the aim, objectives, and content of the sessions, and introduction to Emotional Intelligence.

The 2nd session: Emotional intelligence components.

The 3rd session: Distress tolerance.

The 4th session: Problem solving.

The 5th session: Empathy and compassion.

The 6th session: Communication skills.

The 7th session: Stress management

The 8th session: Teamwork & collaboration

The 9th session: Summary about the program sessions and post-assessment test.

After each session, the researcher revised the homework and gave feedback about the previous session.

Evaluation phase: After program implementation, the post-test was carried out to evaluate the outcome of the emotional intelligence training program in reducing stress levels among military nursing staff by using the same tools as the pretest. This helped to evaluate the effect of the implemented program. This was done immediately after the intervention and implementation of the training program.

Ethical considerations:

Official permission to conduct the proposed study was obtained from the Nursing Research Ethics Committee at the Military Medical Academy, with the code 04-2025. Participation in the study was voluntary, and nurses were given complete information about the study and their role before approval. The researcher explained the purpose and nature of the study, stating the possibility to withdraw at any time, confidentiality of the information, and that it would not be accessed by any other part without taking permission of the nurses. Ethics, values, culture, and beliefs were respected.

Results

Table (1): reveals that the majority, 86.1% of the studied nurses were aged between 20–29 years, and had a mean age of 25.95 ± 4.29 years. Most participants were married, 59.4%, while 37.0% were single, and only a small percentage were divorced, 3.6%. Notably, there were no widowed participants. Regarding residence, a significant proportion, 63.0%, reported living far from their workplace, whereas only 18.8% lived close. Urban and rural residents accounted for 3.6% and 8.5%, respectively, while 6.1% indicated other types of residence. Participants were largely early in their careers, with 80.6% having 0–5 years of experience, and a mean experience duration of 4.56 ± 1.93 years. In terms of job ranking, nearly half, 45.5%, were sub-officers, followed by 33.8%, ranked less than the majority. Officers made up only 5.5%, and there were no civilians in the sample. Departmental distribution showed a relatively balanced spread, with intensive care unit 24.2% and “other” departments also 24.2% being the most common, followed by general 19.4%, surgery 15.2%, pediatric 9.1%, and emergency 7.9% units**.**

Fig (1): shows that less than half of the studied nurses (44.2%) have attended a training program on emotional intelligence, while the majority (55.8%) have not. This indicates a gap in formal emotional intelligence training among the samples, which could have implications for their interpersonal skills and stress management in the workplace.

Fig (2): Indicates that in the pre-training program, more than half of the participants (53.9%) fell into the *low* emotional intelligence category. However, this number dropped significantly to 18.8% after the training program. Conversely, the percentage of participants categorized as having *high* emotional intelligence rose markedly from 46.1% to 81.2%.

Fig (3): presents a comparison of perceived stress levels pre- & post-nursing training program. pre-training program, 50.9% of participants experienced low stress, 32.7% reported moderate stress, and 16.4% experienced high perceived stress. Following the post-training program, the proportion of participants with low stress decreased to 34.5%, while those with moderate stress increased significantly to 55.8%. The percentage of participants with high-perceived stress dropped slightly to 9.7%.

Table (2): clarifies that the socio-demographic analysis before the program showed no significant associations between SSEIT levels and most variables such as age, marital status, place of residence, years of experience, and current rank. However, the department in charge was significantly associated with emotional intelligence levels ($p = 0.003$), indicating that participants from different departments varied in their baseline EI scores. After the program, a significant relationship emerged between age and SSEIT levels ($p < 0.001$).

Table (3): Represents that before the program, there were no statistically significant

differences between perceived stress levels (low, moderate, high) and socio-demographic variables such as age (p = 0.419), marital status (p = 0.897), place of residence (p = 0.160), years of experience (p = 0.899), current rank (p = 0.099), or department in charge (p = 0.337).However, after the program, significant associations emerged between perceived stress levels and several factors. Age showed a significant relationship with stress levels (p = 0.020), with younger participants (20-29 years) predominantly reporting higher perceived stress. Marital status also became significantly associated with stress (p < 0.001), where divorced participants showed higher proportions of high stress. Place of residence showed a strong, significant relationship with stress levels (p < 0.001)

Table (4): reveals that there is a significant positive correlation (r = 0.460, p < 0.001) between the delta in Schutte Self-Report Emotional Intelligence Test (SSEIT) scores and the delta in Perceived Stress Scale scores, indicating that as emotional intelligence increases, perceived stress also tends to increase or decrease in a correlated manner, with a moderate strength of correlation.

Part I: Demographic Information:

Table (1): Number and percentage distribution of the studied nursing staff in a military hospital according to their demographic data (N=165).

Demographic data	No.	%
Age (years)		
20-29 years	142	**86.1**
30-39 years	22	13.3
40-49 years	1	0.6
≥50 years	0	0.0
Mean±SD 25.95±4.29		
Marital status		
Married	98	**59.4**
Single	61	37.0
Divorced	6	3.6
Widow	0	0.0
Place of residence		
Close to work	31	18.8
Far from the workplace	104	**63.0**
Urban	6	3.6
Rural	14	8.5
Other	10	6.1
Years of experience:		
0-5 years	133	**80.6**
6-10 years	12	7.3
11-15 years	8	4.8
16-20 years	11	6.7
≥21 years	1	0.6
Mean±SD 4.56±1.93		
Current rank:		
Officer	9	5.5
Less than major	56	33.8
More than major	25	15.2
Sub officer	75	**45.5**
Civilian	0	0.0
Department in charge:		
Intensive care unit	40	**24.2**
General	32	19.4
Surgery	25	15.2
Pediatric	15	9.1
Emergency	13	7.9
Other	40	24.2

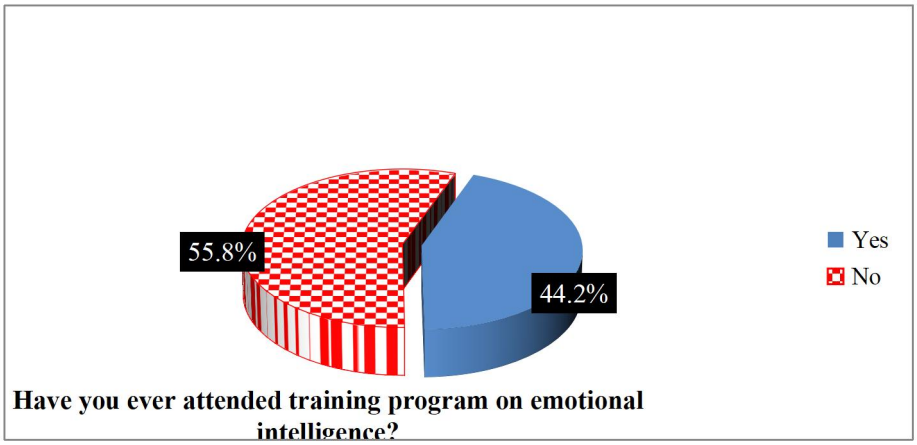

Fig. (1): Percentage distribution of the studied nursing staff in a military hospital, according to the attendant training program on emotional intelligence.

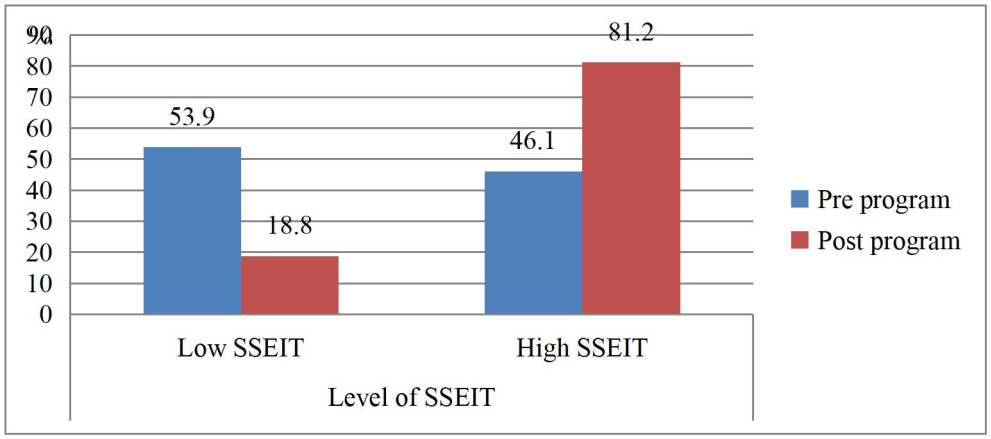

Fig. (2): Percentage distribution of the studied nursing staff in a military hospital regarding level of total Schutte self-report emotional intelligence test (SSEIT) (Pre- & Post-nursing program).

Fig. (3): Percentage distribution of the studied nursing staff in a military hospital regarding the level of total perceived stress scale (pre- & post-nursing program).

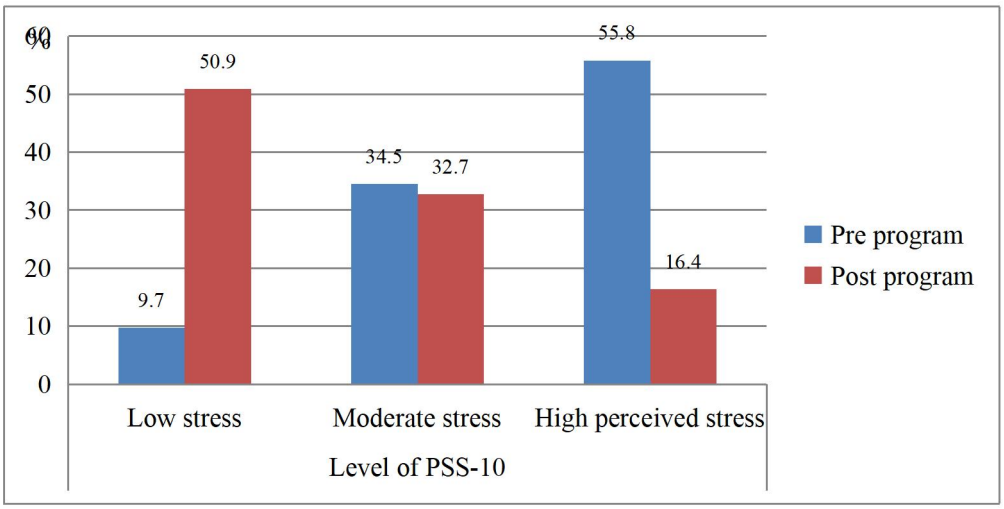

Table (2): Relation between level of studied nursing staff in a military hospital of Schutte self-report emotional intelligence test according to their demographic data (N=165).

Demographic data	Pre-Program (n=165)				x^2	p-value	Post-Program (n=165)				x^2	p-value
	Low SSEIT		High SSEIT				Low SSEIT		High SSEIT			
	No.	%	No.	%			No.	%	No.	%		
Age (years)												
20-29 years	76	85.4	66	86.8	0.867	0.648	12	38.7	130	97.0	76.019	<0.001**
30-39 years	12	13.5	10	13.2			19	61.3	3	2.2		
40-49 years	1	1.1	0	0.0			0	0.0	1	0.7		
Marital status												
Single	38	42.7	23	30.3	3.516	0.172	10	32.3	51	38.1	3.643	0.287
Married	47	52.8	51	67.1			16	51.6	82	61.2		
Divorced	4	4.5	2	2.6			5	16.1	1	0.7		
Place of residence												
Close to work	13	14.6	18	23.7	4.797	0.309	3	9.7	45	33.6	15.398	0.003*
Far from the workplace	58	65.2	46	60.5			20	64.5	68	50.7		
Urban	3	3.4	3	3.9			1	3.2	7	5.2		
Rural	7	7.9	7	9.2			5	16.1	14	10.4		
Other	8	9.0	2	2.6			2	6.5	0	0.0		
Years of experience:												
0-5 years	69	77.5	64	84.2	1.827	0.768	27	87.1	106	79.1	6.490	0.165
6-10 years	7	7.9	5	6.6			4	12.9	8	6.0		
11-15 years	5	5.6	3	3.9			0	0.0	8	6.0		
16-20 years	7	7.9	4	5.3			0	0.0	11	8.2		
≥21 years	1	1.1	0	0.0			0	0.0	1	0.7		
Current rank:												
Officer	6	6.7	3	3.9	4.507	0.212	3	9.7	18	13.4	2.646	0.449
Less than major	24	27.0	32	42.1			15	48.4	49	36.6		
More than major	14	15.7	11	14.5			0	0.0	6	4.5		
Sub officer	45	50.6	30	39.5			13	41.9	61	45.5		
Department in charge:												
Emergency	6	6.7	7	9.2	17.890	0.003*	4	12.9	9	6.7	5.201	0.392
Intensive care unit	23	25.8	17	22.4			4	12.9	36	26.9		
Pediatric	10	11.2	5	6.6			4	12.9	11	8.2		
Surgery	21	23.6	4	5.3			5	16.1	20	14.9		
General	10	11.2	22	28.9			8	25.8	24	17.9		
Other	19	21.3	21	27.6			6	19.4	34	25.4		

*Using: Chi-square test p-value >0.05 NS; *p-value <0.05 S; **p-value <0.001 HS*

Table (3): Relation between level of studied nursing staff in a military hospital of level perceived stress scale according to their demographic data (N=165).

Demographic data	Pre-Program (n=165)						x^2/F	p-value	Post-Program (n=165)						x^2/F	p-value
	Low stress		Moderate stress		High perceived stress				Low stress		Moderate stress		High perceived stress			
	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%		
Age (years)																
20-29 years	12	75.0	48	84.2	82	89.1	3.905	0.419	66	78.6	50	92.6	26	96.3	11.656	0.020*
30-39 years	4	25.0	9	15.8	9	9.8			18	21.4	3	5.6	1	3.7		
40-49 years	0	0.0	0	0.0	1	1.1			0	0.0	1	1.9	0	0.0		
Marital status																
Single	6	37.5	21	36.8	34	37.0	1.084	0.897	30	35.7	12	22.2	19	70.4	26.515	<0.001**
Married	10	62.5	33	57.9	55	59.8			52	61.9	41	75.9	5	18.5		
Divorced	0	0.0	3	5.3	3	3.3			2	2.4	1	1.9	3	11.1		
Place of residence																
Close to work	6	37.5	12	21.1	13	14.1	11.806	0.160	20	23.8	13	24.1	15	55.6	31.293	<0.001**
Far from the workplace	8	50.0	39	68.4	57	62.0			51	60.7	33	61.1	4	14.8		
Urban	0	0.0	3	5.3	3	3.3			2	2.4	1	1.9	5	18.5		
Rural	1	6.3	2	3.5	11	12.0			9	10.7	7	13.0	3	11.1		
Other	1	6.3	1	1.8	8	8.7			2	2.4	0	0.0	0	0.0		
Years of experience:																
0-5 years	12	75.0	44	77.2	77	83.7	3.496	0.899	0	0.0	4	7.4	1	3.7	23.493	0.003*
6-10 years	1	6.3	6	10.5	5	5.4			61	72.6	46	85.2	24	88.9		
11-15 years	1	6.3	3	5.3	4	4.3			21	25.0	4	7.4	1	3.7		
16-20 years	2	12.	4	7.0	5	5.4			2	2.4	0	0.0	0	0.0		

		5														
≥21 years	0	0.0	0	0.0	1	1.1			0	0.0	0	0.0	1	3.7		
Current rank:																
Officer	2	12.5	2	3.5	5	5.4	10.684	0.099	12	14.3	6	11.1	3	11.1	4.955	0.550
Less than major	5	31.3	25	43.9	26	28.3			33	39.3	22	40.7	9	33.3		
More than major	5	31.3	5	8.8	15	16.3			2	2.4	4	7.4	0	0.0		
Sub officer	4	25.0	25	43.9	46	50.0			37	44.0	22	40.7	15	55.6		
Department in charge:																
Emergency	1	6.3	4	7.0	8	8.7	11.264	0.337	19	22.6	8	14.8	6	22.2	3.286	0.974
Intensive care unit	2	12.5	17	29.8	21	22.8			16	19.0	11	20.4	4	14.8		
Pediatric	1	6.3	6	10.5	8	8.7			6	7.1	5	9.3	2	7.4		
Surgery	0	0.0	7	12.3	18	19.6			9	10.7	6	11.1	3	11.1		
General	4	25.0	11	19.3	17	18.5			13	15.5	13	24.1	6	22.2		
Other	8	50.0	12	21.1	20	21.7			21	25.0	11	20.4	6	22.2		

*Using: Chi-square test p-value >0.05 NS; *p-value <0.05 S; **p-value <0.001 HS*

Table (4): Correlation between Δ Schutte self-report emotional intelligence test and perceived stress scale (pre-program) (n=165).

		Delta of SSEIT	Delta of Perceived Stress Scale
Delta of SSEIT	r		0.460
	p-value		<0.001**
	N		165
Delta of Perceived Stress Scale	r	0.460	
	p-value	<0.001**	
	N	165	

*r-Pearson Correlation Coefficient; *p-value <0.05 significant correlation; **p-value <0.001 highly significant*

DISCUSSION

Nursing is widely recognized as one of the most emotionally and physically demanding professions, with staff frequently exposed to high-pressure situations, emotional trauma, and long working hours. These challenges often lead to elevated stress levels, burnout, and decreased job satisfaction (**Sharma et al. 2023).** An Emotional Intelligence (EI) Training Program specifically designed for nursing staff aims to equip them with the skills to recognize, understand, and manage their own emotions as well as those of others. By improving EI, nurses can develop greater emotional resilience, foster more supportive workplace relationships, and better navigate the interpersonal dynamics of healthcare environments **(Alhosseini et al. 2025).**

Discussion of the findings was covered five main parts: First part: represents the demographic characteristics of the studied nursing staff in a military hospital **Second part:** Is concerned with the studied nurses' Schutte Self-Report Emotional Intelligence Test, **Third part:** Is concerned with the studied nurses' perceived stress scale, **Fourth part:** Is concerned with the relation between variables **Fifth part:** Is concerned with correlations between the studied variables.

Part I: This section discusses the demographic characteristics of the nursing staff studied in a military hospital.

Regarding age, the current study revealed that the majority of the studied nurses were aged between 20–29 years and had a mean age of 25.95 ± 4.29 years. From the investigator's point of view, this could be attributed to the growing number of recent nursing graduates entering the workforce. This age group typically represents individuals who have recently completed their academic training and are beginning their professional careers. Additionally, many healthcare institutions tend to recruit younger nurses who are often more adaptable to new technologies and demanding work schedules. This demographic trend may also reflect broader workforce patterns in the nursing profession, where younger individuals are more likely to take on entry-level positions in hospitals and clinics. This result agreed with **Sharma et al. (2023)** conducted a study entitled "Impact of imparting an emotional intelligence skills training program to enhance emotional intelligence and work stress among staff nurses of a tertiary care hospital of North Gujarat, in India (n=66 nurses)" which found that the majority of the cases age were from twenty to thirty years old, with the mean age of studied nurses were 131.30±6.51 years old.

As regards marital status, the result of the current study indicated that more than half of the studied nurses were married, while more than one-third were single, and only a small percentage were divorced. Notably, there were no widowed participants. From the investigator's point of view, this may reflect common social and cultural norms in Egypt, where early marriage is relatively prevalent, especially among women. In Egyptian society, marriage is often viewed as a key milestone in adulthood, and many individuals are encouraged to marry in their twenties. Additionally, the nursing profession in Egypt tends to attract women who may balance both professional and family responsibilities, contributing to the high proportion of married nurses. This finding aligns with broader

demographic trends in the country, where marriage rates remain high among the working-age population. This result agreed with the study conducted by **Zaki et al. (2018)** conducted a study entitled "The Effect of an Emotional Intelligence Program on Decision-Making Style, in Benha, Egypt (n=57 nurses)" and found that the majority of the studied nurses were married. Additionally, these findings were in the same line with **Fattah et al. (2023)** who stated a study entitled "The beneficial effects of emotional intelligence training for critical care nurses on job burnout, in the United Arab Emirates (n=200 of critical care nurses)" and revealed that the majority of the studied nurses were married.

Regarding residence, the result of the current study showed that more than two-thirds of the studied nurses reported living far from their workplace, whereas few of them lived close. From the investigator's point of view, this could be due to several factors, including limited availability of affordable housing near healthcare facilities, especially in urban areas. Additionally, many nurses may reside in rural or suburban regions and commute to work in larger cities where hospitals and medical centers are concentrated.These findings were in contrast with **Fattah et al. (2023)** who stated a study entitled "The beneficial effects of emotional intelligence training for critical care nurses on job burnout, in the United Arab Emirates (n=200 of critical care nurses)" and revealed that the majority of the studied nurses lived in urban areas.

Regarding years of experience, the current study indicated that the majority of the studied nurses had 0–5 years of experience, and a mean experience duration of 4.56 ± 1.93 years. From the investigator's point of view, this result may be due to several factors. Firstly, high turnover rates within the nursing profession, driven by job dissatisfaction, limited career advancement opportunities, and challenging working conditions, often result in a workforce dominated by newer graduates. Secondly, many experienced nurses may migrate abroad in search of better salaries and working environments, leading to a shortage of senior staff in local healthcare settings. Additionally, the expansion of nursing education programs in recent years has led to an influx of newly qualified nurses entering the workforce, further contributing to the younger demographic. This result was supported by **Jawabreh et al. (2024)** who stated that a study entitled "The relationship between emotional intelligence and coping behaviors among nurses in the intensive care unit, in Palestine (n=266 of ICU nurses)" and revealed that the majority of the studied nurses had 1 to 5 years of experience.

According to job ranking, the current study results showed that nearly half of the studied nurses were sub-officers, followed by more than one-third ranked lower than the majority. Officers made up a minority of them, and there were no civilians in the sample. From the investigator's point of view, this could be due to the recruitment policies that prioritize entry-level positions due to staffing shortages, as well as the slower rate of promotion within the nursing hierarchy. The predominance of sub-officers also aligns with the overall finding that a large proportion of the sample had limited years of experience, suggesting that many of the participants were still in the early stages of their professional careers. This result was incongruent with **Zhang et al. (2025)** who stated that a study entitled "The impact of nursing work environment, emotional intelligence, and empathy fatigue on nurses' presenteeism", in China (n=1,375 nurses), and revealed that the majority of the studied nurses' job titles were nurse or assistant nurse.

Regarding departmental distribution, the current study showed a relatively balanced spread, with intensive care units more than one-fifth, and "other" departments also being the most common, followed by general and surgery were minorities, pediatric and emergency units were few. From the investigator's point of view, this distribution may be influenced by the demographic profile of the participants, which suggests a predominantly young and recently married workforce with limited professional experience. These factors could affect their perspectives and readiness for clinical roles. This result disagreed with **Zhang et al. (2025),** who stated that a study entitled "The impact of nursing work environment, emotional intelligence, and empathy fatigue on nurses' presenteeism", in China (n=1,375 nurses), and

reported that the studied participants were distributed across various departments, including internal medicine (approximately one-fifth), surgery (less than one-fifth), gynecology (the majority), pediatrics (more than two-thirds), emergency, and other specialties.

Regarding the number of working hours per shift, the current study displayed that two-fifths worked 12-hour shifts, nearly half reported "other" durations, indicating irregular or flexible scheduling practices, and a minority worked standard 8-hour shifts. From the investigator's point of view, this may be rationalized as the presence of irregular or flexible scheduling practices that may vary based on departmental needs or staffing shortages. This irregularity could reflect the dynamic nature of hospital operations, particularly in understaffed or high-demand units. In contrast, only a minority of nurses reported working standard 8-hour shifts, indicating that traditional shift patterns may be less prevalent in the studied institutions.These findings disagreed with **Fattah et al. (2023)** who stated a study entitled "The beneficial effects of emotional intelligence training for critical care nurses on job burnout, in the United Arab Emirates (n=200 of critical care nurses)" illustrated that nearly two-thirds of the participants worked full-time, while approximately two-fifths were employed part-time.

Regarding attending a training program on emotional intelligence, the current study displayed that less than half of the nurses had attended a training program on emotional intelligence. From the investigator's point of view, this may highlight a potential gap in professional development related to interpersonal and emotional competencies. Given the critical role of emotional intelligence in effective communication, stress management, and patient care, the limited exposure to such training may impact the nurses' ability to navigate complex emotional situations in clinical settings. This result agreed with the study conducted by **Zaki et al. (2018)** who stated that a study entitled "The Effect of an Emotional Intelligence Program on Decision-Making Style, in Benha, Egypt (n=57 nurses)" and found that the majority of the studied nurses hadn't attended a training program on emotional intelligence.

Part II: Presents the Studied Nurses' Emotional Intelligence Test, the Schutte Self-Report Emotional Intelligence Test.

Concerning the perception of emotion, the result of the current study revealed that in the pre-training program, many studied nurses reported challenges in emotional perception. For instance, more than three-quarters of the studied nurses agreed that they found it hard to understand non-verbal messages, while few disagreed. Post-training program, this number dropped significantly to two-fifths, agreeing with understanding such cues. Similarly, awareness of personal emotions showed notable enhancement; only more than half of the studied nurses agreed that they were aware of their emotions in real time, compared to the majority post-intervention.

From the investigator's point of view, the observed improvements in emotional perception and self-awareness among the studied nurses following the training program can be attributed to the structured content and interactive nature of the intervention. Emotional intelligence training often includes activities such as role-playing, self-reflection exercises, and guided discussions, which help participants become more attuned to both verbal and non-verbal emotional cues. Moreover, the training likely provided nurses with practical strategies to recognize and regulate their own emotions, enhancing their real-time emotional awareness.

In agreement with the current study findings, **Zaki et al. (2018)** stated that a study entitled "The Effect of an Emotional Intelligence Program on Decision-Making Style, in Benha, Egypt (n=57 nurses)" and reported that before the program, most participants scored in the low self-awareness category; however, after the program, over two-thirds of participants demonstrated high self-awareness. Additionally, these findings were in contrast with **Soliman et al. (2025),** who stated a study entitled "The Effect of an Emotional Intelligence Training Program on Nursing Students' Stress Management, in Egypt (n=175 of nursing students)" denoted, during the post-

test phase, the majority of studied technical nursing students perceived a satisfactory level of knowledge regarding emotional intelligence.

Regarding managing emotions, the current study discovered that more than two-fifths of the studied nurses agreed or strongly agreed that they remembered overcoming past obstacles when faced with current ones, pre-training program; this increased to the majority post-training program. From the investigator's point of view, these results suggest that the program had a positive impact on enhancing emotional coping strategies. This improvement reflects a strengthened ability to draw on past experiences as a resource for managing present difficulties, which is a key component of emotional intelligence. The current result agreed with study was done in Jordan by **Al-Faouri et al. (2014),** who stated a study entitled "The influence of emotional intelligence training on nurses, Job satisfaction among Jordanian nurses, (n=70 nurses)" reported that managing emotions' subscale of the studied participants increased significantly from pre-training to post-training, indicating a marked improvement in participants' ability to regulate and manage their emotions following the intervention. In addition, these results were congruent with **Moussa et al. (2019),** who stated that a study entitled "The Effect of Emotional Intelligence Training Program on Stress among Nurse Students, In Egypt (n=200 nurse students)" found that all emotional intelligence items were measured before the program intervention increased markedly in post-program.

Concerning managing other emotions, the result of the current study revealed that many studied nurses showed lower confidence or engagement in managing others' emotional experiences. For instance, only a fifth of the studied nurses agreed or strongly agreed that they knew when to speak about personal problems with others, which increased to less than half post-program. This result supported by **Fattah et al. (2023)** who stated a study entitled "The beneficial effects of emotional intelligence training for critical care nurses on job burnout, in the United Arab Emirates (n=200 of critical care nurses)" illustrated that the studied participants showed a substantial improvement in the Self-Emotion Appraisal domain, with mean scores increasing after the program, this suggests enhanced ability among participants to recognize and understand their own emotions following the intervention.

Regarding the utilization of emotion, the current study discovered that agreement with the statement "Some of the major events of my life have led me to re-evaluate what is important and not important" increased from more than half pre-program to most of them post-program. This result matched with the study conducted by **Zaki et al. (2018),** who stated that a study entitled "The Effect of an Emotional Intelligence Program on Decision-Making Style, in Benha, Egypt (n=57 nurses)" and found that more than two-thirds of the participants demonstrated low self-regulation related to emotional intelligence before the program; however, this significantly improved, with the majority exhibiting high self-regulation after the program.

Concerning total Schutte self-report emotional intelligence test, the result of the current study revealed that in the pre-training program, more than half of the studied nurses fell into the low emotional intelligence category. However, this number dropped significantly to less than one-fifth of the nurses in the post-training program. Conversely, the percentage of participants categorized as having high emotional intelligence rose markedly from more than two-fifths to the majority. From the investigator's perspective, the results suggest that the training program was highly effective in enhancing participants' overall emotional intelligence. This improvement is reflected in the positive changes observed across the domains of managing one's own emotions, managing others' emotions, and utilizing emotions effectively. This result supported by **Fattah et al. (2023)** who stated a study entitled "The beneficial effects of emotional intelligence training for critical care nurses on job burnout, in the United Arab Emirates (n=200 of critical care nurses)" illustrated that significant improvement in all domains of emotional intelligence of the 200 nurses after the emotional intelligence training program. Also, these findings were in contrast with **Sayed et al. (2022),** who stated that a study entitled "Effect

of emotional intelligence training program on burnout among psychiatric mental health nurses" in Egypt (n=60 nurses) found that before the program implementation, more than four-fifths of the studied nurses demonstrated a moderate level of emotional intelligence, whereas after the program, the majority had reached a high level.

Part III: Will discuss the perceived stress scale of the studied nursing staff.

Regarding the total perceived stress scale. The result of the current study revealed post-training program, the proportion of participants with high perceived stress dropped dramatically to a minority, and those with low stress increased substantially to nearly half. Meanwhile, the percentage of participants with moderate stress remained relatively stable, more than one-third in the pre-training program and post-training program. From the investigator's perspective, the results suggest that this shift indicates that the training program was highly effective in reducing overall stress levels, with a significant portion of participants moving from high to lower stress categories. The results reflect enhanced emotional coping, stress management, and psychological resilience among the participants. These findings agreed with **Mounib et al. (2023)** who stated a study entitled "Effect of Resilience Training Program on Perceived stress among Acute Care nurses, in the United Arab Emirates (n=160 nurses from acute care units)" revealed that the majority of studied nurses demonstrated a very high level of perceived stress before intervention. The post program's very high-level perceived stress decreased from the majority to a few. As well as, these results were congruent with **Moussa et al. (2019),** who stated that a study entitled "The Effect of Emotional Intelligence Training Program on Stress among Nurse Students, In Egypt (n=200 nurse students)" found that more than half of the nursing students demonstrated high stress levels during the pre-program phase across all stress dimensions, except for emotional feelings and relaxation with the opposite sex. However, their stress levels declined in the post-program phase.

Part IV: Will discuss the relation between variables

Regarding the relation between the studied nurses' demographic data and SSEIT, the current study revealed that there was no statistically significant relation found between SSEIT levels and most variables, such as age, marital status, place of residence, years of experience, and current rank pre-program. However, in the post-training program, there was a significant relationship emerging between age, place of residence post-intervention, where those living closer to work were more likely to have high Emotional Intelligence. These results agreed with **Moussa et al. (2019),** who stated that a study entitled "The Effect of Emotional Intelligence Training Program on Stress among Nurse Students, In Egypt (n=200 nurse students)" found that there were highly statistically significant differences regarding emotional intelligence dimensions among nursing students throughout the program phases. Also, these results matched with the study conducted by **Zaki et al. (2018),** who stated that a study entitled "The Effect of an Emotional Intelligence Program on Decision-Making Style, in Benha, Egypt (n=57 nurses)" showed that there was a highly statistically significant improvement in the level of emotional intelligence for head nurses' post-program

Regarding the relation between the studied nurses' demographic data and perceived stress levels, the current study revealed that there was no statistically significant relation between perceived stress levels (low, moderate, high) and socio-demographic variables such as age, marital status, place of residence, years of experience, current rank, or department in charge. However, a post-training program showed that a significant relation emerged between perceived stress levels and nurses' demographic characteristics. These findings agreed with **Mounib et al. (2023)** who stated a study entitled "Effect of Resilience Training Program on Perceived stress among Acute Care nurses, in the United Arab Emirates (n=160 nurses from acute care units)" showed that there was a highly significant statistical difference between perceived stress post-phase of the program.

Part V: Will discuss the **Correlation between the studied variables among the studied staff nurses.**

Regarding the correlation between the studied variables, the current study revealed that there was a statistically positive correlation between Schutte Self-Report Emotional Intelligence Test (SSEIT) scores and Perceived Stress Scale scores, indicating that as emotional intelligence increases, perceived stress also tends to increase or decrease in a correlated manner, with a moderate strength of correlation. These results disagreed with **Mohamed et al. (2024),** who stated that a study entitled "Effect of Emotional Intelligence Training Program on Stress and Self-Efficacy among Nursing Students, In Egypt (n=75 nurse students)" found that there was a statistically significant moderate negative correlation between nursing students' scores of stresses and Emotional Intelligence.

Conclusion

In light of the current study results, it can be concluded that more than half of the studied nurses demonstrated low emotional intelligence before the training program, a figure that dropped significantly to less than one-fifth after the program. More than half experienced high levels of perceived stress pre-training program, while a few of them were classified as having low stress post-training program. Furthermore, a statistically significant relationship was found between emotional intelligence, perceived stress levels, and the socio-demographic characteristics of the studied nurses following the training program. A statistically significant positive correlation was also observed between scores on the Schutte Self-Report Emotional Intelligence Test (SSEIT) and the Perceived Stress Scale.

Recommendation

Based on the results of this study, the following recommendations were proposed:

1.Design structured ongoing emotional intelligence training programs into professional development and orientation sessions for nursing staff.

2.Foster a supportive and emotionally intelligent work culture by promoting effective communication, teamwork, and leadership practices that prioritize emotional health.

3.Conduct long-term follow-up studies to assess the sustained impact of Emotional Intelligence training on stress reduction and to refine program content based on participant feedback and outcomes.

4.Encourage hospital administrations and nursing boards to adopt policies that mandate EI training as part of continuing education requirements to improve staff well-being and patient care quality.

Reference

Al-Faouri, I., Al-Ali, N., & Al-Shorman, B. (2014). The influence of emotional intelligence training on nurses? Job satisfaction among Jordanian nurses. *European Journal of Scientific Research*, *117*(4), 486-494.

Alhosseini, M., Farahani, M. F., Moslemi, A., & Ganjeh, F. (2025). The Effect of Emotional Intelligence Training on Work–Family Conflict in Intensive Care Nurses: A Randomized Controlled Trial. *SAGE Open Nursing*, *11*, 23779608251325080.

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 Northeast England, United Kingdom. *Journal of education and health promotion*, *12*(1), 236.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24(4), 385–396. https://doi.org/10.2307/2136404

Da Silva, T. H. R. (2025). A Participatory Action Research Project: To explore the Emotional Intelligence development in BSc Adult Nursing Students. In *1st Master Virtual Connect 2025:" Research local, Inter (act) globally: Transforming healthcare step-by-step"*. Sigma Theta Tau International Honor Society of Nursing.

Dewiyanti, N. G., Nurihsan, J., & Budiman, N. (2025, April). The Influence of Emotional Intelligence on Student Success: A Literature Review. In *Proceeding of International Seminar On Student Research In Education, Science, and Technology* (Vol. 2, pp. 69-75).

Eltrass, G. A. A., Elsayed, M. S., & Ali, R. S. (2022). Perceived stress/stressors among university nursing students. Egyptian Journal of Health Care, 13(4), 600–611. https://doi.org/10.21608/ejhc.2022.260421

Fattah, H. A. A., Sallam, G. K., Hendy, A. S., Abozeid, A., & Rodenhurst, N. (2023). The beneficial effects of emotional intelligence training for critical care nurses on job burnout: a quasi-experimental study. *Iranian Journal of Nursing and Midwifery Research*, *28*(3), 300-304.

Fowler, K. R., Robbins, L. K., Field, A., & Avitia III, G. (2025). Role of emotional intelligence in nursing leadership: Enhancing resilience and reducing turnover intent. *Nursing Management*, *56*(5), 19-25.

Heydarifard, M., Rakhshani, T., Fararoie, M., & Abdullatif Khafaie, M. (2025). Effect of an Emotional Intelligence Educational Program on Perceived and Occupational Stress of Health Workers: A Pragmatic Cluster Randomized Controlled Trial. *Journal of Occupational Health and Epidemiology*, *14*(1), 65-73.

Heydarifard, M., Rakhshani, T., Fararoie, M., & Abdullatif Khafaie, M. (2025). Effect of an Emotional Intelligence Educational Program on Perceived and Occupational Stress of Health Workers: A Pragmatic Cluster Randomized Controlled Trial. *Journal of Occupational Health and Epidemiology*, *14*(1), 65-73.

Jawabreh, N. (2024). The relationship between emotional intelligence and coping behaviors among nurses in the intensive care unit. *SAGE Open Nursing*, *10*, 23779608241242853

Kawashima, T., Ota, Y., Aikawa, G., Watanabe, M., Ashida, K., & Sakuramoto, H. (2025). Effectiveness of emotional intelligence training on nurses' and nursing students' emotional intelligence, resilience, stress, and communication skills: a systematic review and meta-analysis. *Nurse Education Today*, 106743.

Li, Z., Li, X., & Chen, J. (2025). Emotional intelligence of educators: a bibliometric review, 1998–2024. *Social Psychology of Education*, *28*(1), 99.

Matroud, F., Othman, M. S., Jamil, M. R. M., Hosshan, H., Zabit, N., Yahya, F. H., ... & Setambah, M. A. B. (2025). Emotional intelligence trends in nursing education: review the literature. *International Journal of Public Health*, *14*(1), 539-547.

Mohamed Ibrahim, R., Mohamed Lofty Aboraya, E., Mohamed Sultan, H., & Adel Fouda, M. (2024). Effect of Emotional Intelligence Training Program on Stress and Self-Efficacy among Nursing Students. *Egyptian Journal of Health Care*, *15*(4), 1064-1079.

Mounib, S. A., Higazee, M. Z., El-Ged, S. A., & Bakr, M. M. (2023). Effect of Resilience Training Program on Perceived stress among Acute Care nurses. *Menoufia Nursing Journal*, *8*(3), 235-258.

Moussa Abd El-Mageed, F., Adam, S., Mahmoud Hassan, R., & Abd Elghafar, G. (2019). The Effect of Emotional Intelligence Training Program on Stress among Nurse Students. *Egyptian Journal of Health Care*, *10*(4), 147-161.

Sayed, S., Abd El Aal, M., Barakat, M., & Sabra, E. (2022): Effect of emotional intelligence training program on burnout among psychiatric mental health nurses. *Journal of Nursing Science Benha University*, *3*(1), 595-609. doi:10. 21608/ snubs. 2022.215176.

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. https://doi.org/10.1016/S0191-8869(98)00001-4

Shaban, M., Ezzelregal Abdelgawad, M., Mohamed Elsayed, S., & Mohamed Abdallah, H. M. (2025). The mediating role of emotional intelligence in the relationship between technostress and burnout prevention among critical care nurses: A structural equation modelling approach. *BMC nursing*, *24*(1), 255.

Sharma, A., & Goel, S. (2025). The Role of Emotional Intelligence in Healthcare. *Journal of Postgraduate Medicine, Education and Research*, *59*(1), 18-22.

Sharma, P., Srivastava, K., Landge, J., & Vyas, S. (2023). Impact of imparting an emotional intelligence skills training program to enhance emotional intelligence

and work stress among staff nurses of a tertiary care hospital of North Gujarat. *Medical Journal of Dr. DY Patil Vidyapeeth*, *16*(3), 348-352.

Sharplin, G., Clarke, J., & Eckert, M. (2025). Assessing the Global Sustainability of the Nursing Workforce.

Shubayr, N., & Dailah, H. (2025). Assessment of emotional intelligence, self-efficacy, and perceived stress among nursing students in clinical practice: a cross-sectional study. *BMC nursing*, *24*(1), 1-10.

Soliman Salama, S., Ismail Zaki Keshk, L., & Ebrahim Aly El Dahshan, M. (2025). The Effect of an Emotional Intelligence Training Program on Nursing Students' Stress Management. *Egyptian Journal of Health Care*, *16*(2), 551-564.

Soliman Salama, S., Ismail Zaki Keshk, L., & Ebrahim Aly El Dahshan, M. (2025). The Effect of an Emotional Intelligence Training Program on Nursing Students' Stress Management. *Egyptian Journal of Health Care*, *16*(2), 551-564.

Zaki, H. N., Abd-Elrhaman, E. S. A., & Ghoneimy, A. G. H. (2018). The Effect of an Emotional Intelligence Program on Decision-Making Style. *American journal of nursing research*, *6*(6), 524-532.

Zhang, Y., Fu, Y., Zheng, X., Shi, X., Liu, J., & Chen, C. (2025). The impact of nursing work environment, emotional intelligence, and empathy fatigue on nurses' presenteeism: a structural equation model. *BMC nursing*, *24*(1), 291. China n= 1,375 nurses.

Zina, Y. M., Mahmoud, H. G., & Helaly, S. H. (2024). The Relation between Emotional Intelligence, Communication Skills, and Caring Behaviors among Staff Nurses at Main Mansoura University Hospital. *Mansoura Nursing Journal*, *11*(2), 199-213.