

Emotional Intelligence, Emotional Empathy and Work Experience among Faculty of Nursing Students, Alexandria University.

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Abstract: Emotional Intelligence involves the ability to monitor one's own and other's emotions. This skill is essential in the nurse patient relationship as it helps the nurse to build stronger bonds with her patients, and to achieve career and personal goals. Empathy is also an important in the nurse-patient relationship. It involves an understanding of the patient's inner experiences and perspectives. Student nurses need to understand the emotional nature of nursing profession, and have emotional skills in order to deliver competent nursing care. In Egypt, many student nurses may work full schedule in private hospitals. The credit hours studying system helps many students to be engaged more and more in work experience during study time. The present study aimed to investigate the Emotional Intelligence, emotional empathy and work experience among Faculty of Nursing Undergraduate Students. This study used a descriptive correlational design. It was conducted at the Faculty of Nursing, Alexandria University, Egypt. The data were collected using The Multi-dimensional Emotional Empathy scale for Adolescents and Adults (MEE), The Schutte Self-Report Emotional Intelligence Test (SSEIT), in addition to a work experience and socio-demographic data questionnaire. Results revealed that a positive significant relation between Emotional Intelligence and Emotional Empathy among Faculty of Nursing students. Furthermore, higher Empathy level was significantly related to not having previous work experience. It can be concluded that emotional intelligence is related to emotional empathy. Additionally, level of Empathy decreases in students with work experience. so emotional intelligence and empathic training must be conducted regularly for student nurses in their clinical training.

Keywords: Emotional Intelligence; Emotional Empathy; work experience; nursing students

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I. Introduction

Emotional Intelligence (EI) enables an individual to create emotionally valuable appraisal for his emotional experiences and those of others⁽¹⁾. EI is a type of social intelligence that integrates the ability to monitor one's own feelings and other's emotions, to guide one's thinking and actions⁽²⁾. Furthermore, it incorporates a broad spectrum of skills that includes the ability to control one's wishes, to isolate feeling from thinking, to control impulses, to curb impatience, to properly regulate mood and to prevent frustration⁽³⁾.

Nurses by virtue of the helping nature of their profession, need to master EI skills to help them go through efficient nurse-patient relationships, to give appropriate care, and to achieve career and personal goals⁽⁴⁾. Accordingly, the nurse can respond to both the technical aspects of patients' diseases as well as to the associated emotional issues⁽⁵⁾. Successful application of EI skills could enhance the nurse's ability to acknowledge patient's emotional experience, to gain self-awareness and confidence, to have self-control, to assert without conflict and to practice the "as if" state⁽⁶⁾.

Emotional intelligence is important for the sound management of relations, as it helps handling relations in a way that leads to harmonious coexistence⁽⁷⁾. Professional nurses who have emotional intelligence skills can create and maintain safe, functional and positive relations⁽⁸⁾. They relate to their clients without being subjected to merge or being caged in this relation. Consequently, EI will help nurses to develop empathetically understanding professional nurse-patient relationship⁽⁹⁾.

Empathy is known as the "capacity" to share and understand another's "state of mind" or emotion⁽³⁾. It is considered as a cognitive attribute, which involves an understanding of the inner experiences and perspectives of another person as a separate individual, combined with a capability to communicate this understanding⁽¹⁰⁾. Carl Rogers's visualization of empathy emphasized the ability of the person to accurately understand others, emotionally as well as mentally⁽¹¹⁾. In nurse-patient relationship, one cannot ignore the vital role that empathy plays⁽¹²⁾. In such relationship, nurses understand the feelings of patients as if they were their own, and the nurse-patient relationship is then, considered as a growth promoting experience for both the nurse and the patient⁽¹³⁾.

Despite advancement in technology, the empathic healing nature of nurse-patient relationship remains essential to a quality care and crucial for further development and growth of the profession⁽¹⁴⁾. Cautiously, nurses should try to see the world through the patient's eyes while maintaining the line between the two different worlds, that of patient and their own⁽¹⁵⁾. In other words, nurses should neither, identify with the patient and thus losing their professional role, nor, send messages that reflect that they do not care about their patients or understand them⁽¹⁶⁾.

Looking at the origin of such important qualification, emotional empathy can be regarded as a multi-dimensional phenomenon that is a natural intrinsic trait and a learned ability⁽¹⁷⁾. Some individuals by nature are more empathic than others, in other words, the capacity to empathize varies from one individual to another⁽¹⁸⁾. Moreover, empathy can also be learned as a skill and can be developed with practice and experience⁽¹⁹⁾. Such learning experience could greatly help the student nurses to provide the needed empathic understanding that will lead to a satisfying patient emotional as well as physical care⁽²⁰⁾.

Nowadays, work opportunities for student nurses are available in private healthcare field during their nursing studies, especially if they have previous nursing degree. Moreover, many healthcare facilities are willing to give student nurses work opportunities either as nursing aids or as patient-care technicians to fill the staff shortage and as a way to grasp those students to continue working after graduation. It was claimed that, this work experience may be helpful to expand the students' training and clinical time⁽²¹⁾.

In addition, the credit hours studying system helps many students to be engaged more and more in private work, and they get involved in work experience earlier, before graduation. Working and going to nursing classes at the same time are difficult tasks that may put them under many stressors. These numerous tasks require a lot of concentration as well as much efforts⁽²²⁾. This leads to a complex emotional demands and stressful work environment. Accordingly, students must respond to multiple emotional experiences every day.

Working nursing students may miss opportunities to express their empathy towards needy patients and may accidentally ignore the patients' direct and indirect emotional expressions⁽¹¹⁾. Student nurses need to understand the emotional and caring nature of nursing as a profession. They also have to possess emotional intelligence skills, as well as empathic skills, in order to deliver competent nursing care and to deal with the chaotic nature of different working environments. Therefore, integration of EI and empathic understanding skills in nursing curricula is vital to insure the quality of the delivered patient care⁽²³⁾.

The literature provide evidence that student nurses show low emotional intelligence scores despite decade of research in emotional intelligence⁽²⁴⁾. Thus, a better understanding of the nurses' ability to manage the emotional demands of patients as well as their abilities to show empathy are still needed. Hence, this study aimed to determine emotional intelligence, emotional empathy and work experience among Faculty of Nursing students in Alexandria University.

II. Materials And Method

Materials

Study design

This study used a descriptive correlational design to collect the necessary data.

Setting

The study was conducted at the Faculty of Nursing University of Alexandria. The Faculty has nine departments: Medical-Surgical Nursing, Critical Care Nursing, Pediatrics Nursing, Obstetrics and gynecological Nursing, Nursing Administration, Community Health Nursing, Gerontological Nursing, Psychiatric Nursing and Mental Health and Nursing Education. It belongs to the ministry of higher education, Alexandria University. The faculty offers bachelor degree for undergraduate students, and diploma, master degree and doctorate degree for graduate students. The Bachelor level is composed of eight semesters of basic nursing education. The Bachelor program follows the credit hours system that offers students a flexible studying schedule.

Subjects

The subjects for this study were 138 nursing students enrolled in the seventh semester. This level of nursing education gives the students a higher chance of being hired by the health care settings to overcome nursing staff shortage. Their hiring is encouraged particularly if they have a previous nursing certificate. Sample size was calculated using epi info program which revealed that at least 120 students are adequate for this study. Accordingly, a convenient sample of 138 nursing students were included.

Tools

The tools of the study included three questionnaires.

- **Tool I: Work experience and socio-demographic data questionnaire divided into two parts:** Part I, is related to socio-demographic characteristics of participants such as sex, age, semester of studying, and nationality. Part II elicited data related to work experience, such as place of work, work schedule, type of work assignment and satisfaction about working during studying.
- **Tool II: The Multi-dimensional Emotional Empathy scale for Adolescents and Adults (MEE):** it was developed by Caruso and Mayer (1998)⁽²⁵⁾. It consists of 30 items including six negatively worded items. These six negatively worded items to reduce response bias. The scale comprises six subscales measuring: Suffering, Positive Sharing, Responsive Crying; Emotional Attention; Feel for Others; and Emotional Contagion. The respondents express their agreement, disagreement or neutral position to each individual item through five point Likert scale from 1 to 5. To compute the scores a mean is calculated for each subscale. Then, the means of these sub-scales are used to compute the General Empathy scale. For the purpose of this study emotional empathy was considered high if the percent score is higher than 75% and moderate if the percent score ranged between 50% to less than 75%. Percent scores below 50 are considered low. The alpha reliability for the total 30-item scale scores was 0.88. For the current study, reliability tests proved acceptable (reliability ($r = 0.334$) and internal consistency ($\alpha = 0.584$).
- **Tool III: The Schutte Self Report Emotional Intelligence Test (SSEIT):** It was developed by Schutte et al. (1998) (26), the SSEIT measures EI based on self-report responses to 33 items including three negatively worded items. These three items were included in the scale in order to reduce response bias. The scale is grouped under seven subscales; Namely Appraisal of Emotions in Self, Appraisal of Emotions in the Others, Emotional Expression, Emotional Regulation of the Self, Emotional Regulation of Others, Utilization of Emotions in Problem Solving and uncategorized. Participants responded by indicating their agreement with each of the 33 statements using a five-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). The scores ranged from 33 to 165. Emotional intelligence was considered high if the percent score was 75% or more and low if less than 75%. It was found that the total scores on the SSREI have acceptable internal consistency (e.g., .90; Schutte et al., 1998). In the present study, the test-retest reliability revealed that the scale is highly reliable ($r = 0.891$) and has acceptable internal consistency ($\alpha = 0.806$).

Methods

1. Written permission from the department of Psychiatric Nursing and Mental Health was obtained.
2. In order to use The Multi-dimensional Scale of Emotional Empathy for Adolescents and Adults (MEE) and The Schutte Self Report Emotional Intelligence Test (SSEIT) permission was requested by Center for Research in Medical Education and Health Care in Philadelphia.
3. A bilingual expert in the field of Psychiatric Nursing translated the scales, and then blind back translation was done.
4. A jury of five experts in Psychiatric Nursing and Mental health evaluated the validity of the scales and reported that the scales have face and content validity.
5. A pilot study was done on 20 nursing students to examine the feasibility and acceptability of the study tools.
6. Alpha Cronbach's was done to measure the internal consistency of the study tools.
7. The subjects of the study were selected conveniently. Then the aim of the study was explained to each student and an informed consent was obtained from those who accepted to participate in the study.
8. The questionnaires were distributed to the students, collected and revised for any missing data.
9. Statistical analysis was done using SPSS (v20).
10. Data were analyzed descriptively to obtain number and percentage, means, standard deviation, and mean percent scores. Then bivariate analysis was done using Pearson's test, and t-test. Multivariate analysis was done using ANOVA.

Ethical consideration

The aim of the study was explained to each student and an informed consent was obtained from those who accepted to participate in the study. The data were collected by approaching participants in small group. The purpose of the study was explained again and students were free to withdraw from the study at anytime. The researchers distributed a self-administered anonymous questionnaire to students and the students were reassured that their responses would be confidential.

III. Results

Table 1 shows the distribution of the studied subjects according to their socio-demographic data. It can be noticed from the table that the mean age for the studied subjects was 20.91 ± 1.40 and that most of them were females (75.4%) and were single (92%), most of them lived within their families (78.3%). Studied students who

were first born amounted to (30.4%) and 44.9% middle born. Moreover, 45.7% of the studied subjects had previous part time work experience as nurses in private hospitals. In addition, 74.6% of them reported satisfactory work experience.

Table (1): Distribution of the studied subjects according to demographic data n=138:

Demographic data	No.	%
Age		
<21	45	32.6
≥21	93	67.4
Min. – Max. (Mean ± SD)	18.0 – 27.0 (20.91 ± 1.40)	
Sex		
Male	34	24.6
Female	104	75.4
Marital statuses		
Single	127	92.0
Married	11	8.0
Cohabitation		
Family	108	78.3
Relative	3	2.2
Friends	3	2.2
Student house	24	17.4
The student`s order in family		
First	42	30.4
Middle	62	44.9
Last	34	24.6
Previous work experience		
No	75	54.3
Yes	63	45.7
Place of work		
Private	63	100
Governmental	0	0
Work schedule		
Part time	63	100
Full time	0	0
Satisfaction with work experience (n=63)		
No	16	25.4
Yes	47	74.6

Table (2) presents the distribution of the studied subjects according to their emotional intelligence and their Emotional Empathy. It can be noted that the emotional intelligence total score was 128.82 ± 14.44 with a mean percent score of 73.41 ± 15.35 reflecting moderate Emotional intelligence (below 75%). The table also shows that the students had a percent score of 75% on the Appraisal of Emotions in the Self and higher than 75% on the Emotional Regulation of Others.

Regarding Emotional Empathy, this table showed that the MEE total score was 116.27 ± 13.72 , with a total mean percent score of 71.89 ± 11.43 which reflects moderate empathy level. Additionally, the mean percent score of the Empathic Suffering and Positive Sharing subscales of emotional empathy were higher than 75% where the mean percent score was 83.19 ± 14.03 and 82.32 ± 16.72 respectively reflecting high level of empathic suffering and positive sharing. On the other hand, the mean percent score for emotional attention was 43.66 ± 15.38 which is lower than 50% reflecting low level of emotional attention. This indicates that student nurses are emotional but their ability to attend appropriately to emotional change in others needs more focus in the nurses training.

Table (3) shows the relationship between emotional intelligence and Emotional Empathy for the studied subjects. Pearson Product-Moment Correlation test was used and indicated that there was a positive significant correlation ($r=0.593, p<0.05$) between SSEIT total score and MEE total score. This indicates that the more empathic the nurse student is the more emotionally intelligent he /she is. It can also be noticed from the table that all dimensions of emotional intelligence have significant positive correlations with emotional empathy total score, empathic suffering, positive sharing and emotional contagion.

Table (4) illustrated the relationship between Emotional Intelligence and Emotional Empathy with demographic data of the studied subjects. It can be observed that the female students had higher emotional empathy than male students with a statistically significant difference ($t=2.680, p<0.05$). In addition, a one-way ANOVA was done to examine the difference between groups of the type of cohabitants that the students had regarding emotion intelligence. It can be noted that there was a statistically significant difference between

groups ($F=3.239, p<0.05$) the students who lived in student houses had higher Emotional Intelligence than those who lived with their families with a statistically significant difference (Post Hoc test= $3.239, p<0.05$). Also, this table showed that there is a statistically significant difference ($t = 2.086, p<0.05$) in empathy between students who had and those who did not have previous work experience, indicating that students who did not have work experience were more empathic than those who did have previous work experience.

Table (2): Distribution of the studied subjects according to their score and percent score of both emotional intelligence and emotional empathy:

Scales	Score	Percent score
Emotional Intelligence Subscales		
Appraisal of Emotions in the Self	8.0 ± 1.46	75.0 ± 18.31
Appraisal of Emotions in Others	26.99 ± 4.32	71.40 ± 15.44
Emotional Expression	7.77 ± 1.58	72.10 ± 19.77
Emotional Regulation of the Self	30.50 ± 4.76	70.31 ± 14.88
Emotional Regulation of Others	20.66 ± 2.94	78.30 ± 14.68
Utilization of Emotions in Problem Solving	15.75 ± 2.46	73.41 ± 15.35
Uncategorized	19.15 ± 2.84	73.41 ± 15.35
Total of Emotional Intelligence	128.82 ± 14.44	72.59 ± 10.94
Multi-dimensional Emotional Empathy		
	Total score	Percent score
Empathic Suffering	47.60 ± 6.17	83.19 ± 14.03
Positive Sharing	21.46 ± 3.34	82.32 ± 16.72
Responsive Crying	10.50 ± 3.05	62.50 ± 25.46
Emotional Attention	10.99 ± 2.46	43.66 ± 15.38
Feeling for Others	14.11 ± 2.65	63.18 ± 16.54
Emotional Contagion	11.61 ± 2.52	71.74 ± 20.96
Total score of Emotional Empathy	116.27 ± 13.72	71.89 ± 11.43

Table (3): The relationship between Emotional Intelligence and Emotional Empathy of the studied Subjects.

		Empathic suffering	Positive sharing	Responsive crying	Emotional attention	Feeling for others	Emotional contagion	Total Emotional Empathy
Appraisal of Emotions in the Self	r	0.344*	0.368*	0.082	-0.148	0.147	0.299*	0.319*
	p	<0.001*	<0.001*	0.342	0.084	0.086	<0.001*	<0.001*
Appraisal of Emotions in Others	r	0.490*	0.441*	0.086	0.057	0.107	0.440*	0.459*
	p	<0.001*	<0.001*	0.313	0.507	0.211	<0.001*	<0.001*
Emotional Expression	r	0.259*	0.266*	0.012	-0.119	0.201	0.258*	0.249*
	p	0.002*	0.002*	0.888	0.164	0.018	0.002*	0.003*
Emotional Regulation of the Self	r	0.369*	0.442*	-0.004	-0.046	0.271*	0.344*	0.380*
	p	<0.001*	<0.001*	0.965	0.591	0.001*	<0.001*	<0.001*
Emotional Regulation of Others	r	0.558*	0.578*	0.236*	-0.035	0.294*	0.523*	0.591*
	p	<0.001*	<0.001*	0.005*	0.683	<0.001*	<0.001*	<0.001*
Utilization of Emotions in Problem Solving	r	0.365*	0.478*	0.245*	-0.108	0.155	0.350*	0.410*
	p	<0.001*	<0.001*	0.004*	0.207	0.070	<0.001*	<0.001*
Uncategorized	r	0.425*	0.453*	0.143	-0.101	0.227*	0.291*	0.412*
	p	<0.001*	<0.001*	0.094	0.239	0.007*	0.001*	<0.001*
Total of Emotional Intelligence	r	0.591*	0.632*	0.152	-0.072	0.289*	0.527*	0.593*
	p	<0.001*	<0.001*	0.075	0.404	<0.001*	<0.001*	<0.001*

r: Pearson coefficient

*: Statistically significant at $p \leq 0.05$

IV. Discussion

Professional relationships, particularly those involving intense emotional situations mandates the individual to master emotional skills as emotion intelligence and emotional empathy. Emotional intelligence combine emotion with intelligence in order to use emotion in helping to live a fulfilled life, in providing support, in problem solving, and in decision making (27). In nursing practice, nurses are in the front line of the health care team who have to deal with emotional needs of their patients(28). In the same context, empathy is an emotional response that stems from another's emotional state that necessitate having the ability to differentiate between self and others(29).

This study aimed to determine emotional intelligence, emotional empathy and work experience among Faculty of Nursing students in Alexandria University. Results of the present study revealed that EI among the faculty of nursing students was generally low. Similarly, it was reported in the literature that EI is low among

Table (4): The Relationship between Emotional Intelligence, Emotional Empathy and Demographic data of the studied subjects.

	n=138	Emotional Intelligence	Emotional Empathy
Age			
<21	45	71.63 ± 10.45	73.05 ± 11.19
≥21	93	69.74 ± 12.45	72.93 ± 10.83
t(p)		(0.477)	(0.125)
Sex			
Male	34	72.39 ± 15.21	72.65 ± 9.22
Female	104	67.43 ± 12.81	73.35 ± 10.61
t(p)		0.095(0.925)	2.680*(0.008*)
Martial statuses			
Single	127	72.97 ± 11.03	68.18 ± 9.10
Married	11	72.16 ± 11.44	68.79 ± 11.38
t(p)		1.398(0.164)	0.938(0.350)
Previous work			
No	75	73.43 ± 10.21	73.78 ± 9.49
Yes	63	71.58 ± 11.75	69.64 ± 13.11
t(p)		0.989 (0.324)	2.086* (0.039*)
Cohabitation			
Family	108	71.10 ± 10.90	70.88 ± 11.83
Relative	3	78.54 ± 3.89	81.11 ± 5.02
Friends	3	76.77 ± 3.15	76.39 ± 8.91
Student house	24	78.03 ± 10.47	74.72 ± 9.59
F(p)		3.239* (0.024*)	1.598(0.193)
Post Hoc test		Family vs Student house p = 0.024*	

t: Student t-test

F: one way ANOVA test

*: Statistically significant at $p \leq 0.05$

medical students. This was explained by finding that the educational curricula are focusing more on the hard skills training rather than soft skills (24). Along the same line, Egyptian literature reported that nowadays Egyptian youths and young adults using media and technological devices (as computers and smart phones) tend to be generally low on their emotional intelligence level (30). Needless to say that general observations reveal that most Egyptian youth are generally overusing media and technological devices.

Additionally, the studied students had low percent score on "Emotional regulation of the self" as a subscale of EI. This may be related to that they are under continuous pressure to integrate and fulfill both their academic tasks as well as those of their private work. This goes in line with Anushka et al who reported that dental students had low emotional intelligence due to the stress of having multi tasks (31).

In contrast, the present study showed that the studied students had a high percent score on the "Appraisal of emotion of self" and "Emotional regulation in others" as EI subscales. This may be rationalized by the fact that their nursing curriculum contains courses related to self-awareness and self-understanding, acceptance of the emotion of others, the importance of maintaining neutral attitude, matter in fact manner, and emotional control as important attributes of a professional nurse. This knowledge seems to have a positive effect on students' personality. In this respect, the same findings were reported and the same reasons were given (24).

Present findings also revealed that the studied students obtained high scores on "empathic suffering" and "positive sharing" as subscales of emotional empathy. These findings are understandable due to the fact that nursing students by virtue of their academic nurture and educational atmosphere, develop their ability to empathize with suffering and to see the world from the other person scope (31). Moreover, Egyptian culture, stress feelings of empathy with those suffering as for example in time of crisis, loss, or funerals people are usually gathered out of the recognition of the suffering for those afflicted.

Results of the present study showed that empathy and EI are significantly related to each other. This finding is in congruence with the existing body of literature that viewed empathy as an integral element of EI (32). In fact, empathy and EI go hand in hand together where the two emotional skills mirror each other. The study of emotional intelligence and empathy reveal that they have common subscales (25, 26).

The present results also showed that working students were less empathic than non-working students. This result could be interpreted indifferent ways. First, whatever the incentives and motivations associated with work, studying and working at the same time are emotionally, mentally and physically draining, interfering with practicing and showing emotional empathy skills. Another explanation is that working with suffering patients is a burden inducing stress, resulting in that the students tend to be task-oriented as a mean of coping. In this way, their main concern is to just provide the necessary physical care and not avoiding attending to their patients'

emotional concerns, especially with their lack of experience as well as decreased professional maturity. This explanation is in accordance with the present finding revealing that the studied students' percent score on emotional attention was the lowest among all the other percent scores of emotional empathy subscales. Similarly, Hunter and Smith showed that nursing students may feel unable to deal with the emotional demands of the working environment leading to emotional inattention. The authors also suggested that lack of knowledge or experience about the potential exploiting power of emotion may contribute to the student nurses' difficulties in showing emotional understanding and empathy(33).

It has also been claimed that being acquainted with human suffering may result in decreased empathy. In this respect, a previous study in Egypt, revealed that nurses who had longer period of work experience, have developed a stereotyped way of dealing with situations that may require empathy(34).

Moreover, the present study exhibited no relationship between the studied students' emotional Intelligence and their work experience. This finding is the same as that of Gordon-Handler (2009) who mentioned that there is no relationship between student self-ratings of emotional intelligence and their work(35). Looking at emotional intelligence as an inherent type of social intelligence that is not learned necessarily by work experience this result could be logic. On the other hand, if EI is regarded as an acquired type of intelligence, upgrading emotional intelligence skills requires more than just being assigned to direct patient care on a part time basis.

The present study showed that gender has an effect on emotional empathy. Female student nurses seem to have higher empathy. Similarly, it was reported in the literature that females had significantly higher empathy scores than males. This could be attributed to the females' increased ability to recognize others' feelings and expression (3). It was also claimed that women are innately more receptive than men to emotional signals, a quality that can contribute to a better understanding and hence, to a better empathic relationship.

Results of current study showed that students who lived in student houses had higher EI than those who lived with their families with a statistically significant difference. In addition, these students had higher empathy. Although this result may seem strange, yet it may be explained by the fact that the students away from their families search for other relationships by being more open and accepting of others. Maintaining these relationships requires the development of emotional intelligence and empathy in order to be accepted by others(36).

Moreover, students have to increase their ability to interpret the emotional expression of others, handle these emotions, be more sensitive and therefore, show more understanding and empathy. Sound management of relations is an element of Emotional Intelligence. It is actually the ability to handle our emotions and our relations in a way that leads to harmonious coexistence(3). All these characteristics are necessary to be developed to help students to adapt with living outside their homes.

V. Conclusion

The following are the main conclusions drawn from this study: Studied student nurses have low emotional intelligence and moderate empathy level. This is mainly due to the presence of stressors and demands imposed by working with suffering people. Emotional intelligence and empathy are significantly related to each other. Moreover, certain factors mainly gender, living away from families and working during their study period significantly affect EI and empathy.

VI. Recommendation

- Emotional intelligence and empathic training must be conducted regularly for student nurses in their clinical training.
- Results of this study can be used to identify educational needs and to establish effective training or other interventions to improve emotional empathy and emotional intelligence for nursing students.
- Conducting workshops for Faculty staff members on methods to build and enhance emotional intelligence and empathy skills among their students during their educational class and clinical experience.
- As this research used self-reporting measure which could raise doubts about the validity of the obtained data. Future researches should consider other measures of assessment and other study subjects' points of view as supervisors, patients, to avoid potential problems related to common method bias.
- Hospital providers need to arrange for in-service training to enhance emotional empathy and emotional intelligence among nurses in the work setting.
- Future researches are needed to understand how health education system and organizational policies could foster, value and enhance empathy among nurses.
- Future researches should also investigate both personal and organizational antecedents of empathy. It seems important to test how supervisors and health organization may support nurses in handling their emotional workload.

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