

The Effect of Emotional Intelligence Training Program on Stress among Nurse Students

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Abstract

Background: Emotional Intelligence means a person's ability to monitor their own and others' emotions, which guide his/her thinking and actions. It has the potential to enable individuals for better coping with stress. **Aim of the study:** determine the effect of emotional intelligence training program on stress among nurse students. **Design:** Quasi-experimental design. **Setting:** Technical Institute of Nursing, which affiliated to faculty of nursing, Ain Shams University. **Subjects:** 200 nurse students were participated in the study. **Tools of data collection:** three tools were used to select data; Trait Emotional Intelligence Questionnaire, Perceived Stress Scale, and Pre and posttest. **Result:** less than one fifth of study subjects had satisfactory knowledge about emotional intelligence in preprogram phase. There is a highly statistically significant improvement in all dimensions of emotional intelligence among nursing students throughout program phases. Highly statistically significant improvement in stress dimensions among nursing students throughout program phases, and there is statistically significant correlation between emotional intelligence score and stress score among nursing students throughout program phases **Conclusion:** Improving nurse students' emotional intelligence decreased stress after implementation of training program. **Recommendations:** enhance nurse students' participation in social and cultural activities, conduct training program about stress management strategies.

Key words: Emotional Intelligence, Nurse Students, Stress, training program.

Introduction

The concept of emotional intelligence deals with the following areas; the ability to understand and express emotions constructively, the ability to understand others feelings and establish cooperative interpersonal relationships, the ability to manage and regulate emotions in an effective manner, the ability to cope realistically with new situations and ability to be sufficiently optimistic, positive and self-motivated in order to set and achieve goals (Kumari, 2016).

Stress is a part of day-to-day living. Any event or circumstance that strains or exceeds an individual ability to cope is called stress. In daily lives, people often exposed to situations that produce stress. The interpretation and reaction to events that make stress are different for different people. For example, speaking in public can be stressful for some people and relaxing for others. However if stress level is too high, it can result in serious medical and social problems. (Lahey, 2014).

There is often a lack of coursework that focuses on improving future nurses with skills that are vitally needed to

confront the stressful work environment. Nursing education programs do not prepare new graduates to form empathetic relationships with their patients. Although instruction in the technical skills to maintain patient safety is of the most importance, there is still a need for the incorporation of EI instruction into the curriculum of undergraduate programs.

This could be addressed through the standardization of a formalized course in EI as a requirement in nursing programs. Recognizing the potential for significant contributions of emotional intelligence to patient outcomes, so it is important to expect, recognize, develop, and assess emotional intelligence within health professions education (Akerjordet & Severinsson, 2013).

While undergraduate nursing programs may not provide a formal course in EI as part of their required curriculum, the concept of caring is emphasized throughout the nursing literature. Despite this fact, "some believe that recent proliferations in technological advances have resulted in an overemphasis on clinical competence and a disproportionate emphasis on service and caring within the health professions" (Romanelli, Cain, & Smith, 2014).

Improving nurse students EI, help in preparing them for successful entry into nursing practice and survival in this emotionally demanding profession. Instructions in the art of EI during nursing education could equip newly graduated nurses with soft skills that required in order to successfully manage the challenges they face in a stressful healthcare environment, resulting in better self and patient outcomes. Ability to work effectively in team means the ability to recognize and respond appropriately to one's own and others' feelings and the ability to motivate oneself and others. Emotional intelligence is the ability to maintain and control when situation, people and events make excessive

demands (Cadman & Brewer, 2011).

Stress has become an important topic in academic circle as well as in our society. Stress prevents university students from focusing and enjoying learning from behaving harmoniously, and from unfolding their unique talents. Accumulate stress causes frustration, depression and anxiety, and can lead to attention deficit hyperactivity disorder, substance abuse, antisocial behaviors and even violence. Now it has become common among the university student and it can be controlled by stress management strategies also improve students' emotional intelligence because stress in academic institution can have negative consequences if not well managed. (Lahey, 2014).

Significance of study:

The researcher as nurse teacher, observed that majority of nurse students in the selected study setting cannot face stressful situations, also they suffering from many signs and symptoms of stress as uncontrollable or threatening angry, nervous, or anxious and trouble thinking. Also they have deficit in solving problem when facing stressful situation (communication with their peers, patient in clinical area, parents, and with teachers) so they expressed their needs to train to be able to confront stressful situations. Therefore, this study will be carried out as an attempt to improve nurse students' emotional intelligence to face the stress.

Aim of the study

This study aims at determining the effect of emotional intelligence training program on stress among nurse students.

Research hypothesis:

Improving nurse students' emotional intelligence will decrease stress after implementation of the training program.

Research design:

Quasi-experimental design was used to carry out this study.

Setting:

The study was conducted at the Technical Institute of Nursing, which affiliated to faculty of nursing, Ain Shams University.

The Technical Institute of Nursing (TIN), Ain Shams University was established in 1986. At the beginning of the establishment, the institute was under the administrative and technical supervision of the Faculty of Medicine, and then the core of supervision was transferred to supervision of the Faculty of Nursing from 2013 till now.

The duration of study at the Technical Institute of Nursing is two years followed by six months compulsory clinical training. Then the student got a certificate "Technical Nursing Institute Diploma".

Subjects:

Nursing students who enrolled in the Institute during the time of the study, were eligible to participate in the study total number of nurse students included (200) nurse students, comprised 125 nurse students from the first year, 75 from the second year.

Tools of data collection:

Data for this study were collected using three tools namely: Trait Emotional Intelligence Questionnaire, Perceived Stress Scale, Pre and posttest.

1. Trait Emotional Intelligence Questionnaire (TEIQue) .

It was developed by (*Petrides & Furnham, 2008*) and modified by

researcher. It aimed to assess global trait emotional intelligence. It includes two parts:

a. First Part: It contains demographic data of the study subjects such as age, gender, place of residence, number of family members and ranking among brothers.

b. Second Part: This part contains (45) items grouped under five domains which as follows: Intrapersonal Competencies (13), Interpersonal competencies (11), Adaptability (8), Managing emotions (7), General mood (6).

➤ **Scoring system:**

Nursing students response were measured on five point Likert scale ranging from Never (1) to Always (5). The scores of items were summed up and the total score was divided by the number of the items, giving the mean score for the part. The score were converted into percent score. Emotional intelligence was considered high if the percent score more than 75%, moderate level if the participant had total score ranged from 60 to 75%, and low level if the participant had total score less than 60% (*Eldidi, 2008*).

2. Perceived Stress Scale . It was developed by (*Cohen, et al., 1983, Cohen, & Williamson, 1988*) and modified by the researcher after reviewing of the relevant literature (*De Croon, 2004, American Psychological Association, 2007*). This Scale aimed to assess stress level among nurse students. It contains (56) items grouped under eight dimensions as follows: Academic achievement (5), Psychological field (8), Relationships with parents and siblings (10), Relationships with colleagues/ teacher/ and administrators (17), Financial and economic matters (3), Emotions/ feelings/ and fear (5), Social sphere (5), Relationships with opposite sex (3).

➤ **Scoring system:**

Responses were measured on a three-point scale ranging from Never (1) to Always (3). The scores of items were summed up and the total score was divided by the number of the items, giving the mean score for the part. The score were converted into percent score. The Participant had low stress if the total percent score was less than 50%, moderate stress if the percent score was ranged from 50% -75% and high stress if the percent score more than 75% (**Shrestha, 2013**).

3- Pre-posttest.

This tool was developed by the researcher after the reviewing of relevant literature (**Cookfair, 2012; Faragher & Brown, 2012; Akerjordet & Severinsson, 2013**). The questionnaire sheet used to assess nursing students' knowledge regarding emotional intelligence contains (7) questions, and stress contains (8) questions. It contains questions covered the following items: concept of emotional intelligence, the importance of emotional intelligence for nursing students, the models of emotional intelligence, the components of emotional intelligence, influences of emotional intelligence, skills of emotional intelligence/ the concepts of stress, levels, types, signs and symptoms, causes, complications, diagnosis, and the strategies for managing stress.

➤ **Scoring system:**

Responses were measured for each knowledge question, a score (1) was given for a correct answer and (0) for incorrect one. The total knowledge score was calculated by summing up the score of the questions for a maximum score, this sum total was converted into a percent total score. Nursing student's knowledge considered satisfactory if the percent score was 60% or more and unsatisfactory if less than 60% (**Daniel & Rosentein, 2012**).

Validity of study tools and program content was done by jury group. Who consists of thirteen faculty members/ from Nursing, Medicine and Education faculties. Ain Shams University, Education faculty at Helwan University. Jury group comprised of 6 professors, 7 assistant Professor. Total number of jury members was (13).

II. Operational design

The operational design includes the preparatory phase, pilot study, and the field work.

a. Preparatory phase

It included the reviewing related literature of various aspects of the study using text books, articles, internet, periodicals and journals.

Pilot study

A pilot study was conducted in September, 2015. On (20) nursing students who represent 10% of total study subject. The aim of the pilot study was to test the clarity of tools language, its feasibility and in order to estimate the time needed to fill in data collection forms. It took 30- 40 minutes.

Fieldwork

Data collection of the study was started from October 2015 and completed in March 2016. The study was conducted through the following phases.

Phase 1: pre- planning phase

The actual field work started at first semester at academic year 2015/2016, the researcher distributed pre-test, questionnaire sheet to the study subjects at their classrooms to assess their knowledge regarding emotional intelligence, and stress after explained the aim and nature of the study. Each participant filled in the questionnaire sheet and backs it to the

researcher. This sheet was distributed three times throughout the study pre, post program and after three months of the program implementation. The first distribution was at September 2015.

Phase 2: program planning

Program was constructed by the researcher after review of the related literature and based on the assessment of the knowledge questionnaire. The time allowed for achieving the program was 30 hours: 18 theoretical sessions and 12 practical demonstration.

The components of the program include sessions about introduction to program, EI concept, and importance of emotional intelligence, components of emotional intelligence. Stress concept, types, signs & symptoms and strategies for treatment stress.

Phase 3: program implementation

The program was implemented in the classrooms at Technical Institute of Nursing, which affiliated to faculty of nursing, Ain Shams University. The program was implemented throughout three months from (October to December 2015), nursing students were divided into five groups, and each group has a one session/week. At the end of the last session, a post test was held to assess nursing students knowledge regarding emotional intelligence and stress after the program.

In the first session the researcher explained the aim of the study, program objectives, plan and content. At the beginning of each session, the objective of the session was explained. Feedback was done about the previous session and at the end of each session. The teaching method used during the implantation of the program were lecture, group discussion, brain storming, role play, group activities, the practice session such as setting

objectives individually, training to apply exercises (as meditation exercises, breathing exercises to release stress). Teaching aids used were data show, videos, paper and pen, and white board and pens. The researcher distributed a booklet about content of the program to all participants on the study.

Phase 4: Follow up

Three month after the implementation of the program the researcher assessed its effect through using the same tools which used in pre and post program. It was in March 2016.

Ethical consideration:

Prior to conduct the study, ethical approval was obtained from the Scientific Research Ethical Committee/ Faculty of Nursing –Ain Shams University. Letter included the aim of the study and its proposed benefits were assured to institute director to obtain permission and cooperation for collecting data. Verbal consent was obtained from each participant prior to the study after explanation of the study aim and objectives. The participants were informed about their rights to withdraw at any time without giving any reason and collected data kept confidential and used only for scientific research.

III. Administrative design:

Before embarking on the study, official letter was obtained from the Faculty of Nursing, Ain-Shams University to the director of the study setting. It included the aim of the study, and the expected benefits. It ensured confidentiality of the information obtained.

IV. Statistical Design

Collected data was revised, coded, tabulated using statistical package for social sciences (SPSS 15.0.1). Descriptive

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Statistics (mean standard deviation, frequency and percentage). Chi square test was used to examine the relationship between two qualitative variables. Paired t-test was used to compare between two means in the studied group before and after intervention & between two means before intervention and during follow up phase. One way ANOVA test was used to compare between more than two means (during pre, post and follow up) regarding participants characteristics. Cochran's Q test is an extension to the McNemar test for related samples that provides a method for testing for differences between three or more matched sets of frequencies or proportions. Pearson Correlation Coefficient (r): Correlation was used as a measure of the strength of a linear association between two quantitative variables. Test of significance when $P > 0.05$.

Results

Table (1): shows that, more than half (56.5%) of nursing students had age ranged between 19-21 years old. Less than three quarters of nursing students were female, and 78.5% were live in urban areas. However, majority of nursing students had less than 75% in total secondary education score. Meanwhile 83% of nursing students choose to join nursing institute by their desire.

Table (2): reveals that, less than one fifth of study subjects had adequate knowledge regarding all emotional intelligence items before program intervention. It increased markedly in both post program and follow up phase (95.5% & 95%) respectively.

Table (3): displays that, total emotional intelligence mean percent scores of nursing students throughout the program phases was increased obviously in post

program phase (79.95 ± 8.97) & (76.37 ± 15.80) respectively. than preprogram (56.72 ± 10.00). There were highly statistically significant differences regarding emotional intelligence dimensions among nursing students throughout the program phases.

Table (4): demonstrates that minority of nursing students had high emotional intelligence level at preprogram phase. As observed, nursing students high emotional intelligence level at post program phase was improved markedly to be ranged between (41.5% - 92.0%) in all emotional intelligence dimensions. While some declines occurred in follow up phase however the levels remained significantly high compared with preprogram phase. and there was markedly elevated in total high emotional intelligence level throughout program phases (0.5%, 77% & 59, 5% respectively).

Table (5): Clarifies that, total stress mean scores of nursing students at preprogram phase was (66.02 ± 15.05) which decreased to (55.44 ± 7.27) at post program phase. There were highly statistically significant differences in all stress dimensions as well as the total score of stress among nursing students throughout the program phases.

Table (6): demonstrated that more than half of nursing students had high stress level at preprogram phase in all stress dimensions except emotional feelings and relaxation with opposite sex. While in post program phase, their levels were obviously declined. Also this table displays that there were highly statistically significant difference in all dimensions of stress among nursing students throughout program phases. Meanwhile at preprogram phase more than one third (35.5%) of nursing students had moderate stress level, while it decreased at post program and at follow up program phase continued to (23% & 19.5%) respectively.

Table (1): Description of Nursing Students Characteristics (n=200).

Characteristics of the students		No.	%
Age	< 19 years	81	40.5%
	19-21 years	113	56.5%
	> 21 years	6	3.0%
Gender	Male	55	27.5%
	Female	145	72.5%
Place of residence	Rural	43	21.5%
	Urban	157	78.5%
Secondary education Score	<75%	161	80.5%
	75-85%	37	18.5%
	>85%	2	1.0%
Choice to join nursing institute	Desire	166	83.0%
	Score	34	17.0%

Table (2): Nursing students Knowledge related to emotional intelligence throughout program phases (n=200).

Adequate Knowledge 60%	Pre		Post		FU	
	N	%	N	%	N	%
Adequate	31	15.5	191	95.5	190	95
Inadequate	169	84.5	9	4.5	10	5

Table (3): Total Emotional Intelligence Mean Scores among Nursing Students throughout the program phases.

	Program phases			Paired t-test (1)	P-value	Paired t-test (2)	P-value
	Pre	Post	Follow up				
Emotional Intelligence Dimensions	Mean% ± SD	Mean% ± SD	Mean% ± SD				
Intrapersonal Competence	54.60 ± 12.16	80.20 ± 11.40	75.61 ± 19.80	-21.954	0.000**	-12.788	0.000**
Interpersonal Competencies	62.68 ± 8.15	88.15 ± 8.68	83.47 ± 12.23	-30.270	0.000**	-20.009	0.000**
Adaptability	56.19 ± 14.14	79.18 ± 11.97	75.77 ± 20.16	-17.549	0.000**	-11.249	0.000**
Managing Emotions	52.63 ± 17.81	71.23 ± 14.25	71.31 ± 19.69	-11.530	0.000**	-9.954	0.000**
The general mood	55.90 ± 15.85	75.55 ± 13.88	71.70 ± 17.33	-13.190	0.000**	-9.515	0.000**
Total mean Emotional Intelligence	56.72 ± 10.00	79.95 ± 8.97	76.37 ± 15.80	-24.454	0.001**	-14.860	0.000**

Paired t-test (1): Difference between pre-program and post program

Paired t-test (2): Difference between preprogram and follow up

(**) Highly statistically significant at P<0.01

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Table (4): Comparison between Nursing Students Emotional Intelligence Levels throughout the program phases (n= 200).

Dimensions of EI	Levels of EI	Program phases						Cochrane Q test	P-value
		Pre		Post		Follow up			
		No	%	No	%	No	%		
Intrapersonal Competencies	Low	135	67.5%	9	4.5%	49	24.5%	240.887	0.000**
	Moderate	54	27.0%	46	23.0%	38	19.0%		
	High	11	5.5%	145	72.5%	113	56.5%		
Interpersonal competencies	Low	75	37.5%	3	1.5%	11	5.5%	406.604	0.000**
	Moderate	119	59.5%	13	6.5%	20	10.0%		
	High	6	3.0%	184	92.0%	169	84.5%		
Adaptability	Low	106	53.0%	14	7.0%	34	17.0%	200.005	0.000**
	Moderate	75	37.5%	38	19.0%	50	25.0%		
	High	19	9.5%	148	74.0%	116	58.0%		
Managing Emotions	Low	123	61.5%	33	16.5%	46	23.0%	110.790	0.000**
	Moderate	52	26.0%	84	42.0%	81	40.5%		
	High	25	12.5%	83	41.5%	73	36.5%		
General Mood	Low	92	46.0%	23	11.5%	34	17.0%	178.355	0.000**
	Moderate	108	54.0%	60	30.0%	89	44.5%		
	High	0	0.0%	117	58.5%	77	38.5%		
Total Emotional Intelligence levels	Low	114	57.0%	8	4.0%	25	12.5%	291.858	0.000**
	Moderate	85	42.5%	38	19.0%	56	28.0%		
	High	1	0.5%	154	77.0%	119	59.5%		

(**) Highly statistically significant at P<0.01

Table (5): Total stress mean percent scores of nursing students throughout the program phases.

Stress Dimensions	Program phases			Paired t-test (1)	P-value	Paired t-test (2)	P-value
	Pre Mean% ± SD	Post Mean% ± SD	Follow up Mean% ± SD				
Academic Achievement	83.47 ± 17.77	54.17 ± 12.43	64.73 ± 24.85	19.107	0.000**	8.672	0.000**
Psychological Field	74.31 ± 12.49	68.15 ± 11.33	66.00 ± 20.26	5.170	0.000**	4.938	0.000**
Relationship between parents and Siblings	63.53 ± 23.43	51.37 ± 12.50	56.30 ± 23.68	6.480	0.003**	3.071	0.000**
Relationship colleagues	56.90 ± 21.31	49.10 ± 7.83	48.60 ± 13.07	4.861	0.000**	4.697	0.000**
Financial economic matters	53.00 ± 23.20	46.44 ± 15.42	46.28 ± 14.39	3.328	0.001**	3.483	0.000**
Emotional feelings	70.47 ± 19.75	63.93 ± 13.70	60.63 ± 16.23	3.844	0.000**	5.440	0.000**
Social field	76.47 ± 20.81	62.67 ± 14.44	63.90 ± 16.90	7.703	0.000**	6.629	0.000**
Relation with opposite sex	62.94 ± 21.86	56.00 ± 24.35	56.22 ± 23.62	3.001	0.000**	2.954	0.000**
Total Stress Mean Percent Score	66.02 ± 15.05	55.44 ± 7.27	56.62 ± 16.83	8.950	0.000**	5.884	0.000**

Paired t-test (1): Difference between pre-program and post program

Paired t-test (2): Difference between preprogram and follow up

(**) Highly statistically significant at P<0.01

Table (6): Nursing students stress levels throughout the program phases (n=200).

Stress Dimensions	stress levels	Program phases						Cochrane Q test	P-value
		Pre		Post		Follow up			
		No	%	No	%	No	%		
Academic Achievement	High	134	67.0%	11	5.5%	36	18.0%	192.025	0.000**
	Moderate	50	25.0%	62	31.0%	76	38.0%		
	Low	16	8.0%	127	63.5%	88	44.0%		
Psychological field	High	102	51.0%	73	36.5%	68	34.0%	31.135	0.000**
	Moderate	65	32.5%	74	37.0%	53	26.5%		
	Low	33	16.5%	53	26.5%	79	39.5%		
Relationship between parents and siblings	High	100	50.0%	34	17.0%	54	27.0%	48.756	0.000**
	Moderate	40	20.0%	13	6.5%	20	10.0%		
	Low	60	30.0%	153	76.5%	126	63.0%		
Relationship between colleagues	High	124	62.0%	26	13.0%	12	6.0%	67.937	0.000**
	Moderate	32	16.0%	103	51.5%	30	15.0%		
	Low	44	22.0%	71	35.5%	158	79.0%		
Financial economic matters	High	140	70.0%	14	7.0%	12	6.0%	26.273	0.000**
	Moderate	20	10.0%	158	79.0%	167	83.5%		
	Low	40	20.0%	28	14.0%	21	10.5%		
Emotional feelings	High	77	38.5%	32	16.0%	36	18.0%	26.221	0.000**
	Moderate	66	33.0%	110	55.0%	86	43.0%		
	Low	57	28.5%	58	29.0%	78	39.0%		
Social field	High	129	64.5%	26	13.0%	54	27.0%	130.502	0.000**
	Moderate	31	15.5%	103	51.5%	73	36.5%		
	Low	40	20.0%	71	35.5%	73	36.5%		
Relaxation with opposite sex	High	93	46.5%	36	18.0%	32	16.0%	22.272	0.000**
	Moderate	42	21.0%	104	52.0%	70	35.0%		
	Low	65	32.5%	60	30.0%	98	49.0%		
Total Stress Level	Severe	58	29.0%	2	1.0%	36	18.0%	89.962	0.000**
	Moderate	71	35.5%	46	23.0%	39	19.5%		
	Low	71	35.5%	152	76.0%	125	62.5%		

(**) Highly statistically significant at P<0.01

Discussion

Emotional Intelligence (EI) in undergraduate nursing students is a necessary step in determining the need to incorporate it as an integral component of nursing education. Emotional intelligence has significant effect on stress among nursing students and their ability to manage it. (*Bar-On, 2013*). Emotional intelligence is emerging as an interesting and potentially important concept in undergraduate nursing students. On the surface, EI certainly appears to fit with the nursing stress. The integration of training on EI skills in undergraduate students curricula will get them more highly sought and better able to perform their jobs which required them to communicate, motivate and work in teams"(*Clark et al., 2016*).

The present study findings revealed that, less than one fifth of nursing students had adequate knowledge regarding emotional intelligence at preprogram. However, at post and follow up program phase majority of nursing students had adequate knowledge. From the researcher point of view, this result may be due to it is first time for most of nursing students they heard about the emotional intelligence. This finding goes in the same line with *Slaski & Cartwright (2013)* who reported that the majority of students acquired knowledge related emotional intelligence dimensions immediate after program implementation.

The findings of the present study demonstrated that, total emotional intelligence mean score of nursing students throughout the program phases was

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increased obviously in post program phase. There were highly statistically significant differences of emotional intelligence dimensions among nursing students throughout the program phases. This result may prove of the positive impact of program on improving nursing students' emotional intelligence knowledge.

This results consistent with study of *Naiem (2014)*, who revealed that, there were highly statistically significant differences in all components as well as the total score of emotional intelligence among the nursing students immediately post program and three months later. This finding also consistent with the study carried out by *Crmbie et al., (2011)*, which found the improvement in total score of emotional intelligence among students after implementation of the training program.

Regarding to nursing students' emotional intelligence level throughout the program phase, the present study revealed that, the minority of nursing students had high level of emotional intelligence dimensions at preprogram phase. This could be due to low self- awareness of nursing students about emotional intelligence and close concern and focused of teaching strategies and management of higher education to prepare nursing students with clinical/ technical skills only.

Meanwhile after the implementation of training program, more than two-thirds of nursing students had marked increasing in emotional intelligence level. This results may be attributed nursing students are primarily concerned with emotional intelligence and highly needed to understand and learned about it.

The previous finding is consistent with *Rochester, Kilstoff, & Scott (2015)* who recommended that nurse students should be able to understand the views and needs of a wide variety of people, remain sensitive and empathic to patient concerns, be able to keep personal emotional reactions

in perspective, handle stress, and promote social responsibility. All of these characteristics are included in the emotional intelligence. Nurse educators should strive to produce graduate nurses not only clinically competent but also emotionally intelligent.

In a study conducted by *Maslach & Jackson (2014)* suggested that EI is the set of abilities (verbal and nonverbal) that help the person to generate, recognize, express, understand, and evaluate their own and others emotions in order to guide thinking and actions that successfully cope with environmental demands and pressures.

According to *Bellack (2014)*, who indicated that, cognitive understanding and technical skills are necessary but not sufficient in a profession as complex as nursing. Self-awareness and emotional regulation are skills that contribute to the professionalism of nurses. Also this result also supported by *Kumari, (2016)* who suggested that students who can perceive and experience their emotions are better at monitoring and regulating their emotions and moods.

The present study demonstrated that, a slight decreasing emotional intelligence level among nursing students at follow up phase when compared with post program level. This finding supported by *Berrocal, (2015)* who clarified that EI is a stable trait may be slightly decreased and also call normal phenomena of retention, although this indicates that it may be somewhat positive variable over time. Also *Naiem (2014)* stressed that decrease of emotional intelligence level among nursing students at three month later as compared to immediately post program.

The finding of the present study clarifies that, two thirds of nursing students had high stress level at preprogram phase, while less than half of them had high stress at post program phase. This result may be due to nursing students always encountered

with potential sources of stress such as the emotions involved in dealing with patients and the learning of applied clinical skills, clinical setting expose nursing students at an early stage in their studies to the realities of working as a healthcare professional. Thus nursing student need to develop the ability to control their emotions and channel their moods constructively as an inability to self-regulation of emotions can lead to high in stress.

This finding is consistent with the study carried out by *Crmbie et al. (2011)*, who found marked improvement in total score of stress among students after implementation of the training program. The result also supported by *Slavi (2004)*, who emphasized that, students can develop their ability to cope effectively with stress after implementing training for long term and practice, applied it in different feature situations, this training is a key predictor of success in other activities that depend on their ability.

Also the current study displays that there were highly statistically significant differences in all stress components as well as the total score of stress among nursing students throughout the program phases. This result supported by *Anders (2014)*, who found the significant relations in all stress aspects among nursing students after implementing training program, also found relationships between depressive symptoms and study nursing. These relations appeared with: stress and stressful life events particularly major financial difficulty and financial concerns accompanied by stress.

The finding of current study revealed more than two third of the study subjects had high stress level in academic achievement before the program. This may be due to various factors such as difficulty of class work, lack of free time, fear of failure, periodic examinations and assessments, increase sense of responsibility, and classroom atmosphere.

Moreover, a new environment and new people, and for those living away from their family for the first time for academic learning to manage themselves financially, emotionally and socially.

This result is supported by a study conducted by *Evans and Kelly (2014)*, who found that, examinations and assessment, the intense amount of work, and finding the academic work difficult were the most important source of stress among nursing students. Also, *Seyedfatemi (2016)* reported that the most significant academic stressor among students of all years was "increased class workload".

This finding is supported by *Naidoo and Pau (2016)*, who found that, academic students were experiencing high level of stress due to various factors such as type of study, tight deadlines, lack of interesting, long studying hours. Interpersonal conflicts at the learning place, such as relationships with peers, teachers and hospital staff, were sources of stress. High stress level affected the morale and motivation of the students.

This finding was inconsistent with *Saifulbahri (2010)* who found that the top ten stressors were related to academic matters namely: feeling afraid of not getting place in tertiary education, examinations, too much content to be learnt, difficulty in understanding subjects that have been learnt, too much homework, and school timetable was too packed.

After the implementation of the program, there was observable elimination of high stress level among nursing students may be due to positive effect of the program on students, or due to high needs of nursing students to learn coping methods with stress effectively. This foregoing present finding was agreement with *Augusto (2014)* who emphasized that the major stressor identified in baccalaureate nursing students were academic in nature, environmental, interpersonal, and personal has positive

effects after longitudinal study emotional intelligence program, and it's develop the ability to control their stress.

The present study finding that, half of nursing students had high level of stress related to psychological, and relationship between parents and siblings field at preprogram phase, meanwhile, after implementation of the program it become decreased. This result consistent with *Oginska et al. (2015)* who, concluded that nursing students with more stress level is a powerful predictor of psychological problem. Nursing students understand, regulate self-emotions and others, incidentally also a well-documented dimension, could be viewed as a low level of psychological and physical problems.

On the same line the study conducted by *Berges and Augusto, (2015)* about predictors of stress among healthcare students such as arrangements, financial security and volume of study, which points to a range of individual psychological characteristics as predictive of stress in students. On the other hand, *Burke, (2015)*, examined the association between students, parents' relationship and responses to stress and found that high-risk and very poor relationship was measured and depressive symptoms were documented among students. There was significant relationship between depressive symptoms and the baseline parents' and sibling relationship levels. However, students with elevated depressive symptoms more likely to demonstrate blunted and recommended that, student needs to develop and establish relationships with their parents.

In addition, the finding of present study revealed that nearly two thirds of study subjects had high level of stress in relationship between colleagues at preprogram phase, which decreased after implementation of the training program. This finding may be due to the majority of the studied subject was females, and social support commonly used by female nursing

students, including sharing personal feelings with others, had lessened the pressures and provided a sense of control over their behavior also nursing students try to keep up friendship or make new friends, and try to help other people in solving their problems. This results are consistent with the findings of a similar study among nursing students at Chiang Mai University which revealed that the female students most frequently used of social support, friendship commonly (*De Croon, 2004*).

This finding consistent with *Kumari, (2016)* reported that, complaining from friends, was more used by nursing students in the study. Since the person was used to blame someone else for the stressful. It also involves getting nervous, seeking comfort or help from family or friends, working off tension with physical activity or exercise, daydreaming, fantasizing, and worrying

Also, Study conducted by *Montes and Augusto (2014)* with nursing students found that, stress coping training program minimizes the negative stress consequences and enhance colleagues relationship among academic students.

The present study revealed that more than two third of study subjects had high level of stress in financial/economic matters at preprogram phase, which decreased after implementation of the training program. This result may be due to students may more financially dependent on themselves and need more money for spend their lives away from their families and afford the material cost of living. Moreover training gains some understanding of the explanatory factors for stress and an evaluation of the role in the experience of perceived stress. The results showed positive effect of training program on minimizing stress level.

The present study findings are consistent with the findings of *Creedy (2009)*, who reported that students in third year were more likely to report higher stress, especially in relation to financial stress. The

result is also consistent with *Shrestha (2013)* who reported that lack of play and recreational pattern; financial problems were also within common stressors among nursing students.

The results of present study revealed that there was a positive effect of emotional intelligence in decreasing stress among nursing students. This finding supported the hypothesis of the study. Which was improving nurse students' emotional intelligence will decrease stress after implementation of training program.

Conclusion

In the light of the study findings, it concluded that, less than one fifth of study subjects had adequate knowledge regarding emotional intelligence before program intervention. In post program phase majority of nursing students had adequate knowledge. There were highly statistically significant differences regarding emotional intelligence dimensions among nursing students throughout the program phases and there was markedly elevated in total high emotional intelligence level throughout program phases. Also there were highly statistically significant differences in all stress dimensions as well as the total score of stress among nursing students throughout the program phases. More than half of nursing students had high stress level at preprogram phase in all stress dimensions except emotional feelings and relaxation with opposite sex. While in post program phase, their levels were obviously declined. Also there were highly statistically significant difference in all dimensions of stress among nursing students throughout program phases. Meanwhile at preprogram phase more than one third of nursing students had moderate stress level, while it decreased at post program and at follow up program phase continued. These confirm the research hypothesis which stated that improving nurse students' emotional

intelligence will decrease stress after implementation of the training program.

In the light of study finding, it is recommended that:

- Incorporation of emotional intelligence as being an important as technical ability and requiring at interview testing for new students.
- Open mutual communication between nurse teachers and nursing student, to facilitate expression of feelings and discuss the possible stressful situations that might happen.
- Enhance nursing teacher/ nursing student relationship which had positive impact in students socialization and self-esteem.
- Motivate student to share in social activities and recreational aspects which can enhance their confidence, socialization and self-esteem and reduce stress.

Further studies are suggested:

Effect of EI program on nurse students' academic achievement.

Relationship between stress and academic adjustment among nursing students.

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