

## Effect of Training Program on Emotional intelligence among Nursing Students in Selected Nursing Colleges of Maharashtra

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### ABSTRACT

Emotional intelligence has a significant place in nursing, where compassion and caring are two foundations of the profession. In order to provide compassionate care, nurses must be able to identify, use, manage and understand emotions not only in themselves but also in others. Emotional intelligence is something that can be taught in a lecture class; it has to be developed through an active listening, engagement, and participation. Nursing curriculum embraces the cognitive and technical aspects, but the cognitive/affective aspects are not focused much, nor emphasized, yet it is expected to be possessed by all nurses. The aim of the study was to assess the emotional intelligence of nursing students and provide an intervention of emotional intelligence training program in order to develop emotional intelligence. To assess the emotional intelligence EIS developed by Schutte N was used. Quasi-experimental pretest post test controlled group design was used on second year B.Sc. Nursing students. The data was collected by stratified proportionate sampling. The study group received 12 hours of training program while control group received the regular training. Later, the post tests were conducted at one month, three month and six months after completion of training on Emotional intelligence. Mann Whitney results among the groups showed that the emotional intelligence training program was significantly effective in raising the level of emotional intelligence in study group than the control group. It was recommended that emotional intelligence training program should be used as an adjunct strategy in nursing curriculum so as to enhance the affective learning.

**Keywords:** *Training Program, Emotional Intelligence, Nursing Students*

Emotions are an important part of our life as it affects all aspects of life. Emotions play an important role in a nursing profession that not only requires technical expertise but also psychologically oriented care. Knowledge about self and emotions in nursing would be

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crucial for further development and growth of profession. Emotions happen instantly in response to a situation.

Emotion is a complex psychological state that involves three distinct components: a subjective experience, a physiological response, and a behavioral or expressive response. The subjective experience is regardless of background or culture, the physiological responses are the activation of sympathetic or parasympathetic nervous system. The behavioral response is important to know because an individual spends substantial amount of time interpreting the emotional expressions of the people around him/her. The ability to accurately understand these expressions is tied to what psychologists call Emotional intelligence and these expressions play a major part in our overall body language.

The term “Emotional intelligence” was coined by Peter Salovey and John D. Mayer in 1990. Daniel Goleman then eventually became aware and defined it as “is a type of intelligence that involves the ability to be sensitive in one’s own feeling and those of others, to be in control of self, motivate one self and influence others, to manage effectively and can be developed to promote emotional and professional growth”. Emotional intelligence can be considered in relations of what the individual contributes to the world with an effective self-management, how much sensitive he/she is towards his/her own opinions and emotions as well as others’, whether he/she has a developed interrelationship and the willingness to do a self-criticism to find a solution to personal, developmental and emotional problems.

Emotional intelligence has a significant place in nursing, where compassion and caring are two foundations of the profession. In order to provide compassionate care, nurses must be able to identify, use, manage and understand emotions not only in themselves but also in others. Emotional intelligence is something that can be taught in a lecture class; it has to be developed through an active listening, engagement, and participation. Nursing curriculum embraces the cognitive and technical aspects, but the conative/affective aspects are not focused much, nor emphasized, yet it is expected to be possessed by all nurses.

Several professionals believe that individual’s emotional intelligence quotient (EQ) may be more important than their IQ and is certainly a better predictor of success, quality of relationships, and overall happiness. Emotional intelligence is a gateway to a balanced life by providing physical health, mental wellbeing, relationship management, conflict resolution, and success and leadership skills.

### **NEED OF THE STUDY**

Emotions play an important role in the overall quality of our personal and professional lives. While tools and technology can help us to learn and master information, nothing can exchange our ability to learn, manage, and master our emotions and the emotions of those around us. Nursing students go through emotional ups and down during their course of study. Through Emotional Intelligence, nursing students can learn to access their emotions and understand patients’ emotions for assessing situations and facilitating healthy outcomes. This may also continue to develop their Emotional intelligence throughout the nursing coursework during education.

The core concept of nursing is "caring", and when care is provided to the patient, it involves emotions. To care for someone requires understanding of emotions of self and others. The

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role of nurse in today's world focuses on physical, mental, social and emotional needs of patients and his family. When the patient is physically sick or injured it affects him emotionally, the changed physiological parameters also pulls him down emotionally and decreases his emotional strength. This kind of emotional drain not only affects patient but also affects the family members. When the nursing students seek clinical experience it is taught to them not to get dragged emotionally when patient and his family is going through emotionally tensed conditions. Nursing educators teach the students to remain emotionally stable when patients are going through emotional trauma. This emotional stability while providing care can be termed as emotional intelligence in nursing.

Nursing education imbibes cognitive, psychomotor and affective domain in learning nursing skills. Cognitive and psychomotor domains of nursing education are very easy to learn, but affective domain is difficult because it can only be felt not seen. Emotional Intelligence will make the students realize this in initial period of learning which will help them to lead a successful life post their graduation.

Joshi J et al, assessed the overall Emotional Intelligence of the nursing students at Nagpur, Maharashtra and it was found average to poor. The result of the study revealed that emotional intelligence is not adequate, hence recommended that the students and the faculty staff of nursing institutions should be exposed to structured soft skills training regularly by means of seminars and workshops. Also a research study conducted by Ibrahim H, Benson G and Mahmoud H found that emotional intelligence of nursing students was average.

### ***Problem statement***

Effect of training program on emotional intelligence among nursing students in selected nursing colleges of Maharashtra.

### ***Objectives:***

1. To assess the emotional intelligence of nursing students in study and control group.
2. To evaluate the effect of emotional intelligence training program on nursing students in study and control group.

## **RESEARCH METHODOLOGY**

Research methodology: Research Approach was quantitative approach; Research Design was Quasi experimental pre test post test; Target Population – Second Year B.Sc. Nursing students; Sampling techniques – stratified proportionate sampling; Sample –Second Year B. Sc Nursing students from selected colleges of Maharashtra who fulfil the inclusion criteria. Sample size – 250 in study and control group each; Inclusion Criteria – Student Nurses willing to participate in the study and who were present during the emotional intelligence training program. Exclusion criteria –Nursing students who have attended emotional intelligence training program in past.

The tool consists of 2 sections. Section I consists of demographic profile of nursing students consists of 16 questions. The section II consists of self-reported emotional intelligence questionnaire devised by Schutte N. The emotional intelligence scale is divided under 4 subscales. There were total 33 items, evaluating perception of emotions consist 10 items, managing own emotions consists of 9 items and managing others emotions had 8 items. The scores ranged from 33 to 165, in which <111 indicates low, 111-137 indicate average and

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>137 indicates high emotional intelligence score. The reliability of the tool was reported by two week test-retest method, where  $r=0.78$  was found for total scores.

Ethical permission was taken from the Principals of Nursing College and then the pre-test, intervention and post-test were planned to obtain the data. The post-test were obtained three times in the duration of one month three month and six months of the academic year.

### RESULTS

**Table 1: Distribution of demographic profile of nursing students in study and control group**

Demographic data		Study group		Control group	
		f	%	f	%
Age (years)	17-18	71	28.4	83	33.2
	19-20	174	69.6	152	60.8
	>21	5	2	15	6
Gender	Male	30	12	44	17.6
	Female	220	88	206	82.4
Income (Parents)	<20,000	111	44.4	62	24.8
	20,001-40000	73	29.2	67	26.8
	>40001	66	26.4	121	48.4
Source of information on EI	TV	63	25.2	90	36
	Newspaper	43	17.2	52	20.8
	Books	53	21.2	61	24.4
	Internet	2	0.8	1	0.4
	Radio	4	1.6	10	4

Table 1 outlines the demographic profile of nursing students in terms of age, gender, income of parents and source of information on emotional intelligence. There was no difference between study and control group's demographic profile of nursing students.

**Table 2: Distribution of nursing students based on Emotional intelligence**

Groups	Emotional Intelligence score					
	Low		Average		High	
	f	%	f	%	f	%
Study	85	34	120	48	45	18
Control	86	34.4	121	48.4	43	17.2

Table 2 illustrates that 48% of students had average emotional intelligence in study and control group. 18% of students had high emotional intelligence in study group and 17.2% of students in control group.

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**Table 2.2: Overall mean scores of Emotional intelligence before and after Emotional intelligence training program**

Emotional intelligence score	n	Study		n	Control		MW test Z Value	P Value
		Mean	SD		Mean	SD		
Baseline	250	122.87	15.934	250	122.22	16.107	0.42	0.67
Post test I	241	135.69	12.069	240	122.40	16.069	9.51	<0.0001
Post test II	241	134.85	13.684	240	122.58	15.798	8.92	<0.0001
Post test III	241	135.09	13.663	240	122.52	15.897	9.15	<0.0001

The above table shows the baseline emotional intelligence score in study and control group. There was no significant difference of baseline mean EI score between study and control group as  $P > 0.05$ , whereas in post test I, II and III the mean EI scores was significantly more in study group than control group as  $P < 0.0001$ . In pretest the number of students were 250 in both groups. In post tests there were dropouts in both the groups, so study and control group had 241 and 240 students respectively in post tests.

**Table 4: Mean scores of emotional intelligence before and after intervention**

		Baseline	Post test I	Post test II	Post test III
<b>Study</b>	<b>n</b>	<b>241</b>	<b>241</b>	<b>241</b>	<b>241</b>
	Mean	122.04	135.69	134.85	135.09
	SD	15.97	12.06	13.68	13.68
	P Value	-	<0.0001	<0.0001	<0.0001
<b>Control</b>	<b>n</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>
	Mean	122.22	122.40	122.58	122.52
	SD	16.18	16.06	15.79	15.89
	P Value	-	0.18	0.028	0.028

Table 4 presents the emotional intelligence mean scores of study and control group before and after intervention showed significant difference as  $p < 0.0001$  at post test I, II and III, whereas in control group the mean scores showed non-significant difference at post-test I, II and III.

**Table 5: Subscale wise mean score of emotional intelligence before the intervention**  
*n=500*

Subscales of Emotional intelligence	Study		Control		M W Test Z Value	P value
	Mean	SD	Mean	SD		
Perception of emotion	36.00	4.470	35.74	4.434	0.48	0.63
Managing own emotion	34.38	5.452	34.18	5.568	0.37	0.81
Managing others emotion	30.12	5.497	30.03	5.546	0.20	0.84
Utilization of emotion	22.38	3.415	22.27	3.430	0.36	0.72
<b>Overall EI Score</b>	<b>122</b>	<b>15.934</b>	<b>122.22</b>	<b>16.107</b>	<b>0.42</b>	<b>0.67</b>

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The above table represents the subscale and overall mean score of emotional intelligence. The Mann Whitney test showed non-significant difference in study and control group.

**Table 6: Mean scores of subscales of emotional intelligence after the intervention**

Subscales of Emotional Intelligence	Study (n=241)		Control (n=240)		Z Value	P value
	Mean	SD	Mean	SD		
<b>Post-test-I</b>						
Perception of emotion	39.34	3.567	35.56	4.960	9.24	<0.0001
Managing own emotion	38.09	4.128	34.11	5.997	7.93	<0.0001
Managing others emotion	33.78	4.373	30.00	5.832	7.39	<0.0001
Utilization of emotion	24.48	3.002	22.18	3.714	7.09	<0.0001
<b>Post-test II</b>						
Perception of emotion	39.02	3.804	35.46	5.457	8.23	<0.0001
Managing own emotion	37.64	4.335	33.99	6.329	7.08	<0.0001
Managing others emotion	33.75	4.735	29.92	6.075	7.33	<0.0001
Utilization of emotion	24.45	3.130	22.10	3.921	7.33	<0.0001
<b>Post-test III</b>						
Perception of emotion	38.84	4.521	35.44	5.476	8.11	<0.0001
Managing own emotion	37.61	4.950	33.98	6.334	7.31	<0.0001
Managing others emotion	33.74	5.234	29.90	6.102	7.48	<0.0001
Utilization of emotion	24.35	3.485	22.08	3.942	7	<0.0001

In comparison of subscale wise mean score of study and control group shows that there was significant difference in Pre-test and Post-test I, II, III. This shows that there was significant effect of emotional intelligence training program on study group.

## DISCUSSION

### *Section I- Findings related to demographic profile of nursing students*

The Second year B.Sc. Nursing students age ranged from 17-23 years. Majority of the students i.e 69.6% in study and 60.8% of students in control group were in the age of 19-20 years. The mean age of study was  $19.02 \pm 0.85$  and  $19 \pm 0.93$  years in control group. There was no statistical difference observed in the mean age of nursing students in study and control group (Chi-square = 7.42,  $p=0.76 > 0.0001$ ).

A study conducted by Kumar A, et al (2017) identified the association of emotional intelligence with academic achievement in which the results showed that the age of students ranged from 18-23 years and the mean age was 20.6 years. Another study conducted by Mahni F, Maryam V, Mahnaz J (2014) to find the relationship between emotional intelligence and clinical competencies found that student's age ranged from 20-27 years with a mean age of  $22.14 \pm 1.15$  years.

The gender wise distribution of nursing students illustrated that 88% were female students and 12 % were male students in study group, whereas 82.4% of female and 17.6% were male students in control group. Majority of the students were female in study and control group.

A study conducted by Mahni F, Maryam V, Mahnaz J (2015) result depicted that 64.4% (85 students) of the total participants were female and 35.6% (47 students) were male.

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### *Section II- Findings related to emotional intelligence*

The nursing student's emotional intelligence score showed almost similar in study and control group. 48% in study and 48.4% of students in control group had average emotional intelligence, whereas 34 % in study and 34.4% of students in control group had low emotional intelligence. Only 18% and 17.2% of students had high emotional intelligence in study and control group respectively.

Several studies are conducted in past to assess the emotional intelligence of nursing students. The study conducted by Joshi J, et al, observed that 41% had average and 46% of nursing students had poor emotional intelligence. While in the study conducted by Mahmoud H, Dayem S, Mousa M (2013) discovered the emotional intelligence of nursing students in Egypt, revealed that 86.4% had moderate and 13.6% of students had high emotional intelligence.

The baseline emotional intelligence mean score of nursing students in study group was  $122.87 \pm 15.93$  and in control group  $122.22 \pm 16.10$ . The baseline mean scores were similar in study and control group. The study conducted by Fletcher I, et al,(2009) assessed the effect of emotional intelligence training on third year medical students, results revealed that the pre-test mean score in study group was  $95.9 \pm 11.9$  and in control group was  $98.9 \pm 13.9$ .

The highest pre-test mean score was found in perception of emotion in study  $36.00 \pm 4.470$  and  $35.74 \pm 4.434$  in control group. The study conducted by Ibrahim H, et al,(2016) evaluated the relationship of emotional intelligence with clinical performance of nursing students found that the mean score of perception of emotion was  $43.57 \pm 6.63$ .

The lowest mean score was found in utilization of emotion in study  $22.38 \pm 3.415$  and in control group  $22.27 \pm 3.430$ . A study conducted by Ibrahim H, et al,(2016) found that the mean score of utilization of emotion of nursing students was  $33.76 \pm 6.60$ .

In managing own emotion pre-test mean score was  $34.38 \pm 5.452$  in study group and  $34.18 \pm 5.568$  in control group. Similar findings were seen in a study conducted Nnabuife J E, et al (2018) found the mean score of managing own emotion among undergraduate medical students was  $34.50 \pm 0.358$ .

In managing emotion of others pre-test mean score were  $30.12 \pm 5.497$  in study and  $30.03 \pm 5.456$  in control group. They were good in managing own emotions and emotion of others. The similar findings of the study demonstrated by Mahmoud H, Dayem S, Mousa M (2013) discovered the emotional intelligence of B.Sc. nursing students in Egypt found that managing emotion of others mean score was  $32.93 \pm 7.52$  indicated moderately good.

**After the intervention** the means scores in study group improved from  $122.87 \pm 15.93$  to  $135.69 \pm 12.06$  in Post-test I. Similar findings were seen in a study conducted by Fletcher I, et al, (2009) evaluated the effect of emotional intelligence training program and communication skill among third year medical students. The result showed that in study group the emotional intelligence improved from  $95.9 \pm 11.9$  to  $104.0 \pm 10.1$ , whereas in control group the mean scores were decreased from  $98.8 \pm 13.9$  to  $96.9 \pm 15.8$ .

Later in Post-test II and III the mean scores of study and control group were  $134.85 \pm 13.68$  and  $135.09 \pm 13.66$  respectively. The comparison was done within group between baseline EI

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and post test I, II and III mean scores. Wilcoxon test results showed significant difference as  $p > 0.0001$  level of significance for all the post tests mean scores (as  $Z = 11.60, 9.65$  and  $9.68$ ). Whereas, in control group the mean scores of baseline EI was  $122.22 \pm 16.18$  and in post test I, II and III the mean scores were  $122.40 \pm 16.06, 122.58 \pm 15.79$  and  $122.52 \pm 15.89$  respectively. Wilcoxon test resulted non-significant difference in control group (as  $Z = 1.34, 2.20$  and  $0.028$ )

### CONCLUSION

The result of the present study demonstrated that there was significant effect of emotional intelligence training program on second year B.Sc. Nursing students in study group. This intervention has improved perception of emotion, managing own emotion and of others and utilization of emotion. A significant difference was observed in study group after the intervention. As the intervention improved the emotional intelligence of nursing students, it can be recommended that this intervention will improve the emotional intelligence which may improve the clinical performance of students.

### IMPLICATION

Various studies have shown positive relationship with high emotional intelligence. So if emotional intelligence is improved it may also improve the clinical and academic performance of nursing students.

An emotional intelligence test can be taken on admission of first year B.Sc. Nursing students so that it will help to know the baseline emotional intelligence nursing students and those students who have poor emotional intelligence.

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### **Conflict of Interest**

The authors carefully declare this paper to bear not a conflict of interests

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