

Emotional Intelligence, Stress and Coping Styles of Nursing Staff in Corporate Hospitals

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Abstract

Introduction: The Nursing profession is a demanding profession and involves complex interaction of nurses with many people. Nurses differ in their emotional intelligence, perception of stress and in coping styles which are influenced by many variables. There can be multiple stressors leading to high stress and poor quality of work. Identification and appropriate intervention is definitely helpful. *Objectives:* Study was conducted to assess the occupational stress, coping styles of nurses, to examine the relationship between emotional intelligence and stress and to study the effect of intervention on stress and emotional intelligence in nurses. *Materials and Methods:* This was a prospective study done in the department of Psychology, Osmania University, Hyderabad. A total of 200 female nurses working in three Corporate hospitals, Hyderabad, were selected randomly. The Emotional intelligence, Stress and Coping styles were assessed through Emotional Intelligence Scale, Occupational Stress Index, and Coping Strategies Scale by way of questionnaires. Thirty nurses had high stress levels and intervention was given to them. All the three scores were again assessed after intervention. *Results:* Nurses differed in emotional intelligence. Nurses more than 50 years showed higher EI. Education also influenced the EI. The EI did not differ based on work area. Stress affected nurses equally irrespective of age and work area. There was a significant difference in Coping styles among nurses. Appropriate intervention given to nurses with high levels of stress

improved the EI and Coping styles. *Conclusion:* Nursing profession is a demanding profession and nurses shoulder lot of responsibility and commitment inherent in it, which can give rise to high levels of stress among nurses. Intervention definitely helps to lower the stress levels and increase the emotional intelligence and coping styles.

Keywords: Nurses; Emotional Intelligence; Occupational Stress; Coping Styles; Relaxation Techniques.

Introduction

The primary task of nurses is to care for patients and aid in their recovery. This profession needs a lot of discipline, patience, responsibility, commitment and dedication. The duties of a nurse include many activities involving interactions with the patients, doctors, other health care providers, relatives of the patients, administrators, superiors and colleagues. In addition, many nurses have to work in shift duties and stay away from family events on many occasions. They have to constantly care for sick people and witness morbidity and mortality and there are many everyday stressful experiences packed into the profession.

The physical, mental and psychological well-being of nurses is very important so as to ensure better patient care. It is the responsibility of the hospital management to ensure a stress-free environment for their nurses in order to deliver better nursing care. The study was undertaken to assess the occupational stress of nurses working in different corporate hospitals; to examine the relationship between emotional intelligence and stress; to identify the efficiency of coping styles and to study the effectiveness of intervention on stress and emotional intelligence in nurses.

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Materials and Methods

The present study was a prospective study carried out in the department of Psychology, Osmania University, Hyderabad, over a period of five years. A total of 250 female nurses working in three different corporate hospitals, Hyderabad, were selected randomly for the study. The hospitals were 150 to 300 bedded. The academic qualifications of the subjects were ANM (Auxiliary Nursing and Midwife), GNM (General Nursing and Midwifery) and B.Sc.N (Bachelor of Science in Nursing). Informed consent was taken from all the participants. Only female nurses, who had completed studies between 18 to 55 years of age, working in Corporate hospitals in various wards with patients were selected. Three instruments were used for the study. Emotional Intelligence Scale (EIS)- (by Hyde [1] et al) had 34 items and measures EI through 10 factors - self-awareness, empathy, self-motivation, emotional stability, managing relation, integrity, self-development, value orientation, commitment and altruistic behaviour. Occupational Stress Index (OSIS)- (by Srivastava [2] et al) had 46 items and measures 12 different dimensions inherent in any occupation. Coping Strategies Scale (CSS)- (by Srivastava AK [3]) had 50 items to be rated on a five point scale.

In the present study, the nurses were contacted in the working hours with prior appointment from the concerned Nursing Superintendent of the hospitals. The objectives were clearly explained to the participants. After establishing sufficient rapport with them, their biodata sheets were filled. The nurses were requested to read the structured instructions carefully provided for answering each scale before giving their response. They were assured of complete confidentiality. The Emotional Intelligence Scale and Occupational Stress Index scale were given first. On submission of these two, the Coping Strategies Scale questionnaire was given. The questionnaires were given to 250 nurses out of which, 50 were incomplete and lacked demographic details and hence were discarded. Final sample size of the study comprised of 200 nurses. After obtaining the responses, scoring was done according to the test manual guideline. Out of 200 nurses, 30 were identified as having high levels of stress. They were given education and self-management skills and were counselled about coping strategies. The therapeutic programs were counseling on psycho-socio factors and relaxation techniques:

A. Jacobson [2] Progressive Muscle Relaxation Technique was adopted to help nurses develop more control over somatic symptoms of anxiety by reducing

muscle tension. The subjects were asked to sit in a comfortable chair. First, the therapist demonstrated how to tense and relax the different muscle groups. Then the nurses were guided through the tension and relaxation technique by the therapist. Tension was normally maintained for 5 seconds followed by 10-15 seconds relaxation of the muscles. The technique was carried out in two sessions. In the first session, relaxation of the hands, arms, face, neck and shoulders was practised. In the second session, the rest of the body was included. Clam and regular breathing was continued throughout the sessions. Daily homework assignment was asked to be practised by the nurses at home in a comfortable place and time. They were asked to keep a record of the time taken to relax and the amount of relaxation achieved during each practice.

B. Rapid Relaxation Technique-It helps to relax in natural and stressful situations and reduces the time to get relaxed. Each session takes 20 to 30 seconds and needs to be done for 15 to 20 times per day.

The steps were: Take 2-3 deep breaths with slow exhalation of each breath. "Relax" had to be thought before each exhalation. The body was to be scanned for tension and relaxation of the tensed muscle groups was to be tried.

Those found to have high stress were given intervention and required therapy for 2-3 weeks. After the intervention, emotional intelligence, stress and coping styles were assessed to understand the effect of intervention on these functions. The raw scores were collected from the response sheets of the nurses. The scoring was done according to the manuals. Three scores ie, coping strategies, stress and emotional intelligence of each subject were obtained. The trait coping strategies and occupational strategies were scored separately with all subareas. For analysis, measure of central tendency, measure of variability, 't' ratio to find the difference among the groups and multivariate analysis to observe the trends and factors relating to stress were used.

Results

The nurses aged 50 years and above showed significantly higher mean score for EI when compared to other age groups.

Nurses had significant difference in EI as related to the age. Nurses with B.Sc education had better EI than those with ANM or GNM education. Also the B.Sc. group had higher stress levels and also better coping styles.

Table 1: Characteristics of the subjects

Parameter	Variable	n = 200	Percentage
Experience	< 5 years	115	57.5
	5-10 years	65	32.5
	>11 years	20	10
Hospitals	Hospital - 1	60	30
	Hospital - 2	60	30
	Hospital - 3	80	40
Educational qualifications	ANM	19	9.5
	GNM	131	65.5
	B.Sc. (Nursing)	50	25
Marital status	Married	74	37
	Single	126	63
Age group	21 - 30 years	167	83.5
	31 - 40 years	25	12.5
	41 - 50 years	5	2.5
	>50 years	3	1.5
Family	Joint family	64	32
	Nuclear	136	68
Area of work	General ward	55	27.5
	Intensive ward	59	29.5
	Dialysis ward	5	2.5
	OPD (Out-patient)	27	13.5
	Post-operative ward	14	7
	Cath- lab	4	2
	Emergency/Casualty	14	7
	Cubical ward	22	11
	Duties	Shift	107
	General	93	46.5

Table 2: ANOVA and Mean scores on Emotional intelligence, Stress and Coping styles related

Parameter	Age (years)	Number of subjects	Mean	F value	n=200
					Significance
Emotional intelligence	20-30	181	130.14	3.21	0.042, S
	31-49	16	128.06		
	50 and above	3	148.66		
Stress	20-30	181	138.15	1.093	0.337, NS
	31-49	16	135.50		
	50 and above	3	144.00		
Coping styles	20-30	181	94.53	0.377	0.686, NS
	31-49	16	97.77		
	50 and above	3	103.00		

SD: standard deviation, S: significant, NS: not significant

Table 3: ANOVA and Mean scores on Emotional intelligence, Stress and Coping styles related to Educational Qualifications. n=200

Area	Education	N	Mean	F value	Significance
Emotional intelligence	ANM	18	133.50	4.69	0.010, S
	GNM	109	127.68		
	B.Sc.	73	133.89		
	Total	200	130.25		
Stress	ANM	18	135.88	8.09	0.000, S
	GNM	109	135.99		
	B.Sc.	73	141.60		
	Total	200	138.03		
Coping styles	ANM	18	94.55	4.197	0.016, S
	GNM	109	91.22		
	B.Sc.	73	100.50		
	Total	200	94.91		

There is no significant difference in EI or Stress in nurses working in different areas. However, there is a difference in the coping styles and nurses working in ICU have better coping styles.

There was no significant difference between nurses of IP wards, OP wards and critical wards for EI. The stress factor for nurses was same in all the working areas irrespective of the type of wards. Nurses of ICU and OP ward adopted same coping styles. The IP ward

nurses adopted coping styles depending on the situation.

There was a significant relation between emotional intelligence of nurses to cope with stress. The stress of nurses related well with better Coping styles and proved significant relation along with emotional intelligence of nurses. The areas of coping styles of nurses had significant relation with the stress at work place in different hospitals.

Table 4: ANOVA and Mean scores of Emotional intelligence, Stress and Coping styles related to Working Areas n=200

Factor	Work area	N	Mean	F value	Significance
Emotional intelligence	ICU	77	131.45	2.47	0.087, NS
	IP ward	82	127.85		
	OPD	41	132.80		
	Total	200	130.25		
Stress	ICU	77	139.06	1.271	0.283, NS
	IP ward	82	136.70		
	OPD	41	138.73		
	Total	200	138.03		
Coping styles	ICU	77	103.50	17.27	0.000, S
	IP ward	82	85.25		
	OPD	41	98.09		
	Total	200	94.91		

Table 5: Comparison for Emotional Intelligence, Stress and Coping styles for Nurses within the Area of Working Units. n=200

Dependent variable	Work area (I)	Work area (J)	Mean diff	Significance
Emotional intelligence	ICU	IP ward	3.60	0.085, NS
		OPD	-1.35	0.595, S
	IP ward	ICU	-3.60	0.085, NS
		OP ward	-4.95	0.050, S
Stress	OP ward	ICU	1.35	0.595, NS
		IP ward	4.95	0.050, S
	ICU	IP ward	2.35	0.133, NS
		OPD	0.33	0.283, S
IP ward	ICU	-2.35	0.133, NS	
	OP ward	-2.02	0.283, S	
Coping styles	OP ward	ICU	0.33	0.861, NS
		IP ward	2.02	0.283, S
	ICU	IP ward	18.25	0.000, S
		OPD	5.40	0.162, NS
IP ward	ICU	-18.25	0.000, S	
	OP ward	-12.84	0.001, S	
OP ward	ICU	-5.40	0.162, NS	
	IP ward	12.84	0.001, S	

Table 6: Correlation between Emotional intelligence, Stress and Coping styles of Nurses

		Emotional Intelligence	Stress	Coping Styles
Emotional intelligence	Pearson correlation	1	0.273**	0.091
	Sig (2- tailed)		0.000	0.199
	N	200	200	200
Stress	Pearson correlation	0.273**	1	0.185**
	Sig (2- tailed)	0.000		0.009
	N	200	200	200
Coping styles	Pearson correlation	0.091	0.185**	1
	Sig (2- tailed)	0.199	0.009	
	N	200	200	200

** Correlation is significant at the 0.001 level (2-tailed)

Table 7: Results of ANOVA, Mean scores of Emotional intelligence of Nurses.

n=200

S. No	Ares	N	Mean	SD	DF	F	S
1	Emotional intelligence	200	130.60	13.93	199	4.819	0.009
2	Self- awareness	200	16.18	2.69	199	0.974	0.379
3	Empathy	200	18.20	2.34	199	2.883	0.58
4	Self- motivation	200	23.30	2.7	199	5.133	0.007
5	Emotional stability	200	15.12	3.42	199	2.746	0.007
6	Managing relations	200	15.38	2.36	199	8.045	0.000
7	Integrity	200	11.74	1.61	199	0.907	0.405
8	Self- development	200	9.77	1.39	199	9.90	0.000
9	Value orientation	200	7.13	1.49	199	6.46	0.002
10	Commitment	200	8.02	3.06	199	3.502	0.032
11	Aesthetic behaviour	200	7.76	1.18	199	5.926	0.003

The emotional intelligence of nurses working in hospitals was high but they did not differ in it. The mean score of the nurses was 130.60 which showed that nurses managed their problems using emotional intelligence more often. Nurses using their emotional intelligence at emergencies result in better coping styles such as Cognitive approach and Cognitive Behavioural approach. Nurses vary significantly among them.

Nurses with high level of stress were identified and underwent intervention programme which included relaxation techniques and counseling about their general problems. After one month they were re-evaluated. The mean score of EI before and after intervention was 124.5 and 137 respectively. The F value was 0.798 and P value was 0.0001 which was significant. The stress level decreased and the stress score improved from 148.6 to 112.3 after intervention. The F value was 0.718 and the P value was 0.0001 which was significant.

Discussion

Occupational stress stands as one of the factors of stress in professional fields. Nursing care plays an important part in the treatment of a patient along with medication at appropriate time and it is a stressful job. Stress in turn is related to the emotional intelligence of a person and the pattern of coping styles adopted by them.

The three variables emotional intelligence, stress and coping styles of nurses were considered in this study. The nurses with high stress were identified and the effect of intervention on them was studied. The major variable of emotional intelligence and its relation with age group of 20-30 years compared with 31-40 years age group proved significant among them. Nurses with higher age group had higher emotional intelligence. Nurses differed significantly with B.Sc. to ANM education in relation to the area of emotional intelligence. Nurses' work area had no significance

with emotional intelligence. Nurses with higher emotional intelligence resulted in the successful completion of work indicating that they exhibit more patience, commitment and empathy. Nurses reflected the same attitude in the area of self-awareness and integrity which are factors of emotional intelligence.

The nursing profession demands the nurse to constantly interact with the patients and health care providers and so the 'nurse-patient interaction' is the pulse of the nursing practice. It is a complex process involving perception, understanding of patient emotions and utilization of these perceptions to manage patient situations to achieve effective patient care. This involves emotional intelligence.

Quantitative research is a formal, objective, systematic process where numerical data is utilized to obtain information as suggested by Burns [5] et al. Bowling [6] also emphasized that quantitative research is ideal as it permits use of standardized data collection. In the present study, a cross-sectional survey design was used to provide a quantitative/numeric description of the attitudes and opinions of the nurses. The main benefit of a cross-sectional survey is that data can be collected from the population of interest at one point in time. This is extremely advantageous considering the time constraint of the present study.

The term Emotional intelligence in the present study refers to the ability to identify, use, understand and manage emotions and emotional information. The term emotional intelligence became popular due to the American psychologist Daniel Goleman [7]. It has been suggested by Mayer [8] et al that there are individual differences in our ability to utilize emotions and emotional information and hence, this has become a popular construct with researchers and practitioners alike. One of the rapidly growing areas of interest with regard to EI is its role in the workplace. Traditionally, the workplace has been considered a cold and rational environment with no room for emotions as proposed by Ashforth [9] et al. But at

present, it is understood that individuals bring their affective states, traits and emotions to the workplace. The role of EI in occupational stress process is underinvestigated. Locke [10] claims that the concept of EI is in itself a misinterpretation of the intelligence construct. He thought of EI as the ability to grasp abstractions and suggested that EI is a skill. In our study we observed improved EI in better educated group and also in higher age groups.

Stress is inherent in life and human behavior [11]. Workplace stress is not confined to the work place and it is frequently brought home as well as suggested by Doby et al [12].

Bhagat [13] et al observed that stress causes individuals to change their psychological or physiological condition and leads to deviation from normal functioning. Hendrix [14] et al 1995 defined stress as an uncontrollable cognitive state resulting from exposure to a stressor that can result in psychological and physiological strain. Hans Selye [15] 1946 described the 'General adaptation syndrome' theory in which he described three stages as a response to stress and these are the Alarm reaction, Resistance and Exhaustion. Stress is a recognized problem in health care workers and Nursing has been identified as an occupation with high levels of stress. Stress perception is highly subjective and complex. Marital status also affects stress levels. Being married is less stressful and more satisfying for men than for women as observed by Valdez [16] et al. Cooper [17] et al stated that occupational stress includes environmental factors such as work overload, role ambiguity, role conflict and poor working conditions. However, in our study, the nurses perceived more or less similar levels of stress irrespective of the working areas. Manshor [16] et al in their study on Malaysian managers found that workloads, working conditions and relationships at work led to stress at work place. They also observed that certain demographic variables influenced the stress levels. In the present study also we observed that the better educated nurses with B.Sc. Nursing qualification perceived more stress as compared to non-degree qualifications. This could be due to the pressure to perform better.

The stressors can be internal or external and also they can be short term acute stressors or long term chronic stressors. National Institute for Occupational Safety and Health (NIOSH) [19] has suggested ways to reduce stress such as balance between work and family life, creating support network of friends and co-workers, maintain positive attitude, have realistic expectations, balanced diet, practice relaxation and meditation techniques and have regular medical check-ups. Accordingly, in our study the nurses were given

counselling and were taught relaxation techniques to overcome the stressors. The emotional intelligence can be improved to better cope with stress as stated by Watkin [20]. We agree with Watkin as our study also showed an improvement in the EI of the subjects after intervention.

Coping: Coping is defined as the cognitive and emotional efforts made to overcome stress of everyday living. Lazarus [21] et al suggested that coping consists of action-oriented and intra-psychic efforts to manage environmental and internal demands. Researchers like Lazarus and Folkman [22] et al have observed that Coping is a complex process and is influenced by personality characteristics and situational demands. Along with identification of work place strategies, it is important to devise coping strategies to deal with it. Mc Lean [23] suggested that a person's reaction to stress depends on their attitude and is perceived differently by different people. Similarly International Labour Office (ILO) [24] also suggested that the effectiveness of coping techniques depends on the individual. Potential predictors include gender, age, case mix, workload, practice type, speciality work, work control, isolation and support in balancing work and home. In our study also we observed that nurses having better EI had better coping styles. A study by Tyson [25] et al suggests that nurses who have high levels of workload use more problem-solving strategies and nurses who are stressed due to patient demands or home/work conflicts use social support. We agree with Tyson et al as our study also showed that nurses working in more demanding areas like ICUs had better coping styles.

Conclusion

Nurses differ significantly with regard to age and emotional intelligence and most of them experience moderate levels of stress. Behavioral acceptance coping styles are adopted by nurses and these are not influenced by the age group. Nurses working in ICUs have better coping styles as compared to other area nurses. Self-motivation of nurses differs significantly. Nurses with degree course like B.Sc. have higher emotional intelligence. Intervention definitely helps to lower the stress levels and increase the level of emotional intelligence.

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