

Research Article

A Study to Assess the Effect of Stress and Emotional Intelligence on Quality of Life of Nurses Working in a Tertiary Care Hospital in West Bengal

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A B S T R A C T

Background & Aim: Nursing is a stressful job. It requires dedication, sincerity and compassion for the sick. These qualities put the nurses under tremendous work pressure which hampers their quality of life. The experience to handle stressful situations develops with maturity of taking decisions, keeping self-updated and the confidence of balancing work life situations. The present study aimed to identify the impact of stress and emotional intelligence on the quality of life of nurses.

Methods: This cross-sectional descriptive study was conducted with 50 female nurses from a tertiary care hospital, selected through convenience sampling. Data were collected online. Emotional intelligence was assessed with the Quick Emotional Intelligence Self-Assessment questionnaire, stress levels were measured using the Perceived Stress Scale (PSS), and quality of life was evaluated with the WHOQOL-BREF questionnaire.

Result: The majority of nurses were in the 25–30 years age group (26%), while 20% were between 46 and 50 years old. The mean years of experience among the participants was 8.3 years (SD = 2.6; median = 7.5; range: 8–14 years). The Perceived Stress Scale results showed that the study participants experienced moderate to high levels of stress.

The mean scores as per the domains such as physical, psychological, social, environmental and spiritual health was 7.8 ± 2.07 , 18.56 ± 3.72 , 11.60 ± 1.98 , 31.92 ± 4.80 and 2.0 ± 0.67 . Higher scores indicate higher quality of life. It was seen that > 50% participants required strengthening their Emotional Quotient for effective functioning, < 25% required attention and development of their EQ while 4-20% had enhanced skills and were able to use this as their strength for betterment of others and weaker areas. The Spearman's rho analysis identified that stress had negative impact on the domains of QoL i.e. social relationship, environment and spiritual domain were found statistically significant with $p < 0.05$. It was also identified that EI domain of relationship management was significantly correlated ($p < 0.001$) with the QoL domain of Psychology. It was found that independent variables like Age (21.425, $p < 0.04$) with Emotional Awareness, while

Marital status (13.250, $p < 0.05$) and No. of Children (10.834, $p < 0.05$) were significantly correlated with the Emotional Management Domain.

Conclusion: According to the study's findings, stress and emotional intelligence (EI) have an impact on nurses' quality of life (QoL). Because nurses deal with patients and coworkers on a regular basis, emotional intelligence (EI) is particularly important in the healthcare industry. Higher EI levels may thereby increase nurses' empathy and fortitude, fostering a more encouraging and supportive workplace.

Keywords: Nurses, Emotional Intelligence, Stress, Quality Of Life

Introduction

The work culture in today's rapidly evolving environment is challenging, fast-paced, and stressful. More than ever, job stress presents a significant threat to the health of employees and, consequently, to organisational well-being. Job stress has become a widespread and costly issue in the American workplace, affecting the majority of workers. For example, studies report that one-fourth of employees consider their jobs to be the primary source of stress in their lives (Northwestern National Life). Three-fourths of employees believe that workers today experience more on-the-job stress than those of a generation ago (Princeton Survey Research Associates). Workplace problems are more strongly linked to health complaints than any other life stressor, including financial or family issues (St. Paul Fire and Marine Insurance Co.).¹¹

Job stress is defined as a negative emotional and physical response that arises when job demands do not align with an employee's abilities, resources, or needs. This mismatch can adversely affect health and may even cause harm to individuals.¹

Nursing is recognised as one of the most stressful professions. The demanding environment can seriously impact nurses' health.² For both nurses and healthcare organisations, job stress is costly, as it can impair nurses' decision-making abilities, reduce self-confidence, and decrease work efficiency.

The concept of emotional intelligence is multifaceted. The psychosomatic health of nurses is positively impacted by emotional intelligence, according to research. Research commonly establishes a positive correlation between emotional intelligence and job performance. On the other hand, subpar work performance can have a detrimental effect on nurses' general health and well-being as well as the quality of services they provide.³

The idea of quality of life (QoL) looks at both positive and negative aspects of an individual's or population's well-being at a particular moment in time. The World

Health Organization (WHO) defines quality of life (QoL) as a subjective assessment based on an individual's perception of their reality in relation to their aspirations, viewed through the lens of their culture and value system.⁴ Stressors can cause physiological, psychological, or behavioural reactions in nurses, which frequently lead to occupational stress that exacerbates mental and physical health problems. Thus, general quality of life, job satisfaction, and well-being may decline.⁵

Nurses serve as a vital link between patients and the healthcare system, making it imperative to address their needs and take active steps to improve their quality of life. It is essential to assess the various dimensions of quality of life and stress among nurses to ensure their well-being and enhance the effectiveness of healthcare delivery.

According to the present study's hypotheses, stress and EI influence the QoL of the nurse. Therefore, the current study was designed to assess the levels of stress, emotional intelligence, and quality of life, as well as to evaluate the relationships between stress, emotional intelligence, and quality of life among nurses.

Material and Methods

This study utilised a descriptive survey design to assess stress, Emotional Intelligence (EI), and Quality of Life (QoL) among nurses employed at a tertiary care hospital. The study population comprised staff nurses working in various hospital units, including acute and sub-acute departments. Convenience sampling was employed, and data collection was conducted using the Google platform. The sample size ($N=50$) was determined with a 5% margin of error (95% confidence interval and a proportion of 3.4%). Inclusion criteria for participants included being a registered nurse (RN) and having at least one year of professional experience.

The tools comprised of the questionnaire consisted of items covering the respondents' socio-demographic profile, Perceived Stress Scale (PSS) by Cohen, the Quick Emotional Intelligence Assessment based on the Paul Mohapel Model, and the WHOQOL-BREF questionnaire. The Perceived Stress Scale (PSS) is the most widely used psychological tool for measuring an individual's perception of stress. It assesses the extent to which situations in one's life are appraised as stressful, focusing on feelings of unpredictability, uncontrollability, and overload. In this study, the version developed by Cohen et al.²⁷ and later modified by Park and Seoh was used.²⁸ The PSS consists of 10 items rated on a five-point scale, from "Strongly disagree" (0 points) to "Strongly agree" (4 points), with higher total scores indicating greater perceived stress. The PSS encompasses two subfactors: positive and negative perceived stress. Reliability, as measured by Cronbach's α , was reported at 0.87 in the original study by Cohen et al. and 0.85 in

the Park and Seoh adaptation. In the current study, the Cronbach's α was 0.78 for the overall scale, with values of 0.77 for positive perceived stress and 0.86 for negative perceived stress, indicating excellent internal consistency.

The WHO QoL-BREF questionnaire was used for assessing the level of QoL. It consists of twenty-six statements and addresses four main QoL domains, such as the following: Physical Health, which includes activities of daily living, dependence on medication and treatment, energy and fatigue, mobility, pain and discomfort, sleep and rest, and ability to work; Psychological Domain, encompassing body image and appearance, negative and positive feelings, self-esteem, religion, personal beliefs, thinking, learning, memory, and concentration; Social Relationships, to cover personal relationships, social support, and sexual activity; and Environment, which relates to financial resources, freedom, physical and mental safety, availability and quality of health care, home environment, opportunities to acquire new information and skills, participation in recreational activities and leisure, as well as aspects of the physical environment such as pollution, noise, traffic, climate, and transport.

The Emotional Intelligence (EI) scale used in the study was the Quick Emotional Intelligence Assessment by Paul Mohapel. This questionnaire consists of 40 items, each rated on a 5-point Likert scale ranging from 0 to 4. The assessment measures four factors: emotional awareness, emotional management, social-emotional awareness, and relationship management. Scores for each factor range from 0 (indicating a low level of EI) to 4 (indicating a high level of EI).

The Ethics Committee of the hospital approved the study protocol. The study was conducted anonymously, and participation was voluntary. Informed consent was obtained from all nurses who participated. After data collection, responses were downloaded from Google Forms into an Excel file, and the data was analysed using SPSS software. The analysed data were presented as numbers and percentages. Additionally, the mean, median, and standard deviation (SD) were calculated. Spearman's rho was used to determine the relationships between variables, with a p-value of less than 0.05 considered statistically significant.

Results

Participant Demographic Characteristics

The study population consisted of 50 nurses. Table 1 outlines their demographic characteristics. The majority of nurses were in the 25–30 years age group (26%), while 20% were between 46 and 50 years old. The mean age was 7.14 years (SD = 3.60), with a median of 8 years and an age range from 25 to 55 years. Half of the nurses (50%)

held a BSc (N) degree, and 23% had completed an MSc or PhD. The mean years of experience among participants was 8.3 years (SD = 2.6), with a median of 7.5 years and a range from 8 to 14 years. Approximately half of the nurses worked in general departments and acute care areas.

Study Scales

Table 2 presents the descriptive statistics for the PSS Scale (0-10) and EI Scale (0-40). The nurses reported moderate to high levels of stress, according to the mean scores on the Perceived Stress Scale. In particular, 30% of participants said they were frequently affected by unexpected events, compared to 64% who said they were occasionally bothered by them. Furthermore, 58% said they had no influence over some aspects of their lives. 24% of respondents said they frequently felt anxious and stressed, while 56% said they had trouble meeting responsibilities at work. Additionally, 13% of respondents said they had no control over annoyances in their lives, and 20% expressed rage when circumstances were beyond their control. Regarding EI, it was seen that the sample possessed higher relationship management, followed by social emotional awareness, emotional management, and emotional awareness.

The mean scores as per the domains such as physical, psychological, social, environmental and spiritual health was 7.8 ± 2.07 , 18.56 ± 3.72 , 11.60 ± 1.98 ,

31.92 ± 4.80 and 2.0 ± 0.67 . Higher scores indicate higher quality of life (Table 3).

As per the figure 1, it is also seen that only 8 (16%) quite often had negative feelings while only 1(2%) expressed having negative feelings very often.

It is depicted from the above table that more than 50% participants require strengthening their Emotional Quotient for effective functioning, less than 25% samples require attention and development of their EQ while 4-20% had enhanced skills and were able to use this as their strength for betterment of others and weaker areas.

Impact of stress and Emotional Intelligence on QoL of the Nurses

The Spearman's rho analysis identified that stress had a negative impact on the domains of QoL, i.e., social relationships, environment, and spiritual domain were found statistically significant with $p < 0.05$. It was also identified that the EI domain of relationship management was significantly correlated ($p < 0.001$) with the QoL domain of psychology. It was found that independent variables like age (21.425, $p < 0.04$) were correlated with emotional awareness, while marital status (13.250, $p < 0.05$) and no. of children (10.834, $p < 0.05$) were significantly correlated with the emotional management domain.

Table 1. Demographic And Job Characteristics Of Nurses

(N= 50)

Characteristics	N	%
Age		
• 20-24 yrs	5	10.0
• 25-30 yrs	13	26.0
• 31- 35 yrs	8	16.0
• 36-40 yrs	8	16.0
• 41-45 yrs	5	10.0
• 46-50 yrs	10	20.0
• 51-55 yrs	1	2.0
Educational level		
• GNM	6	12.0
• PBBSc (N)	7	14.0
• BSc (N)	25	50.0
• MSc (N)	11	22.0
• PhD (N)	01	2.0
Area of work		
• Dept Area	23	46.0
• Sub acute area	3	6.0
• Acute area	24	48.0
Years of experience		
• 1-5 yrs	14	28.0
• 6-10yrs	8	16.0
• 11-15yrs	7	14.0
• 16-20 yrs	6	12.0
• 21-25yrs	8	16.0
• 26-30 yrs	7	14.0

Table 2. Descriptive Statistics Of The Study Scales

N=50

	Mean	Std. Deviation	Minimum	Maximum	Q1	MEDIAN	Q3
COHEN PSS	21.74	5.21	11.00	35.00	19.75	21.50	25.00
Emotional Intelligence							
Emotional Awareness	25.00	5.89	11.00	37.00	21.50	26.00	29.00
Emotional Management	26.18	7.17	9.00	40.00	22.00	27.00	31.00
Social Emotional Awareness	28.78	7.06	9.00	39.00	24.00	30.00	34.25
Relationship Management	28.96	6.88	10.00	39.00	25.50	31.00	34.00

Table 3. Qol Among Samples

N=50

Domains	No of items	Mean ± SD	Transformed
Physical	07	7.8 ± 2.07	37.33
Psychological	6	18.56 ± 3,72	67.80
Social	3	11.60 ± 1.98	71.67
Environmental	8	31.92± 4.80	74.75
Spiritual	2	2.00 ± 0.67	25.00

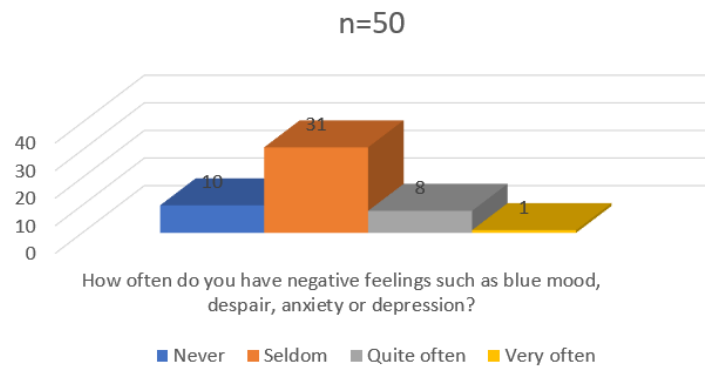


Figure 1. Description As Per The Feelings Of The Samples

Table 4. Findings Of The Ei Scale

(n=50)

Item	Areas of enrichment	Effective functioning	Enhanced skills
Emotional awareness	19 (38%)	29 (58%)	02 (4%)
Emotional management	18 (36%)	27 (54%)	05 (10%)
Social Emotional Awareness	13 (26%)	25 (50%)	12 (24%)
Relationship management	12 (24%)	28 (56%)	10 (20%)

Table 5. Impact Of Stress And Ei On QoL Of Nurses

			Physical-Transformed	Psycho-logical Trans-formed	Level of Independence Trans-formed	Social relationships Trans-formed	Environment Trans-formed	Spirituality / Religion / Personal beliefs-Trans-formed
Spearman's rho	COHEN PSS TOTAL SCORE	Correlation Coefficient	0.259	-0.078	0.143	-0.350	-0.323	0.477
		p Value	0.069	0.591	0.321	0.013	0.022	0.000
	Emotional Awareness	Correlation Coefficient	0.082	0.216	0.170	0.018	0.109	-0.190
		p Value	0.571	0.132	0.239	0.903	0.452	0.187
	Emotional Management	Correlation Coefficient	0.194	0.237	0.193	0.032	-0.015	-0.064
		p Value	0.177	0.097	0.180	0.828	0.918	0.659
	Social Emotional Awareness	Correlation Coefficient	0.263	0.262	0.243	0.012	-0.101	-0.067
		p Value	0.065	0.066	0.089	0.933	0.487	0.645
	Relationship Management	Correlation Coefficient	0.263	0.361	0.244	0.174	0.159	-0.163
		p Value	0.065	0.010	0.087	0.226	0.271	0.257

Discussion

The study aimed to investigate the impact of stress and Emotional Intelligence (EI) on the Quality of Life of nurses in India. Findings indicate that EI, in particular, enhances work performance and Quality of Life. The results showed that nurses generally possessed moderate to high levels of EI. However, stress emerged as a major factor contributing to a decrease in Quality of Life among the nurses. Considering the Spearman's rho analysis, the stress scores were strongly correlated to variables like social relationships, environment, and spiritual/religious beliefs.

Emotional intelligence predicts positive subjective well-being in nurses. According to the study, the hypothesis is that there is a relationship between EI and stress.

To increase nurses' positive subjective well-being, emotional intelligence is crucial (Goleman, 2006). Self-awareness, or the capacity to recognize and comprehend one's own emotions, strengths, and limitations, is a component of emotional intelligence. Nurses who are very self-aware are better able to control their emotions and deal with difficult situations. Our study indicated that >50% of the nurses required emotional strengthening, which means that effective emotion control helps people feel better and experience less stress. Emotional intelligence enables nurses to effectively control their emotions. According to a study done on nurses, it showed that emotional intelligence skill training significantly affected the physiological response, emotional response, and behavioral response to stress.⁶

Also, Petros et al. in their study brought out a positive relationship between EI and work performance among nurses.

Nurses' quality of life declines as a result of the physical and psychological strain of working in a hospital and spending a lot of time with patients. The results pointed out that the physical health status of the nurses was a significant finding, which resonates with a study conducted in Karnataka.⁵ Our study reported that age, marital status, and number of children had a significant effect on the QoL. The study found that stress had an influence on the QoL. There was a statistically significant and negative relationship between total job stress scores and quality of life ($r = -0.44$, $P < 0.001$).² The findings also confirm that the nurses' perception of QoL and satisfaction with the work environment was high, which indicates that they are moderately happy and are working under stress. These findings suggest the need for developing various activities to mitigate stress among nurses. Another study⁷ found that nurses rate their QoL at an average level. It also pointed out that the worst responses were in the physical domain. The study also pointed out that those nurses with increased weight reported lower QoL in all domains. Heba R Alareed⁸

in her study, reported that nurses represented a bad QoL with the environmental health domain and had the lowest scores, which suggested that the nurses were not satisfied with their living conditions or financial resources.

Quality of Life (QoL) is a measure that most accurately captures a person's well-being based on their own subjective assessment as opposed to just objective external conditions. Healthy physical activity, reduced perceived stress, and fewer sleep disturbances are all connected with greater quality of life (QoL) and have an impact on a nurse's subjective health condition.⁹

Both individual initiatives and legislative changes are necessary to improve the quality of life for nurses. Improving nurses' quality of life should receive particular emphasis since it allows them to provide patients with high-quality treatment. Additionally, assistance targeted at boosting emotional intelligence may be beneficial for most nurses.¹⁰

There are a number of significant limitations to the study. First, future research with a bigger sample size is advised because the sample size was very small, which may limit the ability to properly evaluate the study objectives. Second, because social media convenience sampling was used, the results cannot be applied to all nurses. Third, the study's cross-sectional design makes it impossible to establish causal connections between the variables under investigation.

Conclusion

According to the study's findings, stress and emotional intelligence (EI) have an effect on nurses' quality of life (QoL). EI is particularly crucial in the healthcare industry because nurses deal with people on a regular basis. Policymakers and nurse managers should create and carry out programs targeted at enhancing nurses' emotional intelligence. Improving EI skills can lower stress and raise general quality of life. Increased EI may also make nurses more resilient and compassionate, which would eventually create a more encouraging and supportive workplace.

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