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Occupational Burnout as a Predictor of Ego Resilience and Emotional Intelligence among Nursing Officers working in selected Hospitals, Bhubaneswar, Odisha

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Abstract

Background:

Nursing officers face demanding clinical environments requiring emotional intelligence and ego resilience to cope with occupational burnout and workplace stress.

Methods:

A descriptive research design was implemented among 316 nursing officers at selected Hospital. Tools included a socio demographic Proforma, the Ego Resilience Scale, and the Wong and Law Emotional Intelligence Scale and Copenhagen Burnout Inventory (CBI). Data were analyzed using descriptive and inferential statistics.

Results:

Among 316 nursing officers, 38.0% had high ego resilience, 49.1% had low emotional intelligence, and 56% experienced moderate occupational burnout. Ego resilience showed a strong positive correlation with emotional intelligence ($r = 0.671$, $p < 0.001$), whereas neither ego resilience nor emotional intelligence was significantly associated with occupational burnout. Multiple regression analysis showed that neither ego resilience nor emotional intelligence significantly predicted occupational burnout.

Conclusion:
Higher emotional intelligence correlates with stronger ego resilience, emphasizing the need for structured EI and resilience-building programs for nursing officers.

Keywords: Emotional intelligence, Ego resilience, Nursing officers, Psychological competence, occupational burnout

Introduction

Nursing is a profession that requires not only technical expertise but also strong emotional awareness, interpersonal sensitivity, and the ability to adapt effectively to psychological and professional challenges[1]. Among occupational groups, healthcare professionals, particularly nurses, are considered highly vulnerable to occupational stress and burnout due to the demanding nature of their work[2][3]. Nurses are routinely exposed to multiple occupational stressors, including heavy workloads, emotional demands, challenging clinical situations, and interpersonal pressures, which may adversely affect their physical and psychological well-being[4][5]. Nurses serve at the forefront of healthcare delivery and are routinely exposed to critically ill patients, emotional distress, complex clinical decision-making and demanding workloads. These challenging work environments may increase nurses' susceptibility to occupational stress, emotional exhaustion, and burnout[3][4]. Emotional intelligence (EI), broadly defined as the ability to perceive, understand, regulate, and effectively utilize emotions in oneself and others, has emerged as an important competency in healthcare settings[5]. In nursing practice, emotional intelligence facilities therapeutic communication, empathy, teamwork, effective interpersonal relationships, and sound clinical judgement[6]. Nurses with higher levels of emotional intelligence may be better equipped to manage workplace stress, resolve interpersonal conflicts, regulate emotional responses, and maintain professional functioning in demanding situation[7][8]. The ability to recognize and regulate emotions may therefore contribute to more adaptive responses to occupational challenges[9]. Ego resilience refers to a dynamic capacity to adapt flexibly to changing or stressful circumstances and to recover from adversity while maintaining psychological equilibrium[10]. In nursing practice, resilience enables nurses to cope with challenging clinical situations, adjust to rapidly changing healthcare demands, and maintain emotional stability in the face of occupational stressors[11][12]. Resilient nurses have been reported to experience lower levels of burnout and greater job satisfaction, while resilience may also contribute to improved professional functioning and patient care outcomes[3][13]. As a personal psychological resource, resilience can act as a protective factor against the adverse effects of stressful work environments[13][15]. Burnout is a psychological syndrome that commonly develops in individuals who work in emotionally demanding environments and involves prolonged exposure to occupational stress[14][15]. It is traditionally characterized by three dimensions: emotional exhaustion, referring to feeling of emotional and physical depletion; depersonalization, reflected in cynical or negative attitudes towards others; and reduced personal accomplishment, characterized by a perception of diminished competence and

achievement[14][15]. Among nurses, burnout can have important consequences for individual well-being, professional functioning, and the quality of patient care. Higher levels of occupational burnout have been associated with reduced work efficiency, loss of human resources, and adverse physical and psychological consequences[12][14]. In demanding clinical environments, nurses require effective psychological resources to manage stressors, make appropriate decisions during critical situations, and maintain the quality of healthcare services. Emotional intelligence and resilience are among the personal competencies that may support nurses in responding effectively to occupational challenges[16]. Nurses who are able to recognize and regulate their emotions may be more likely to respond constructively to workplace stressors, which may in turn strengthen their capacity for resilience[17]. Similarly, evidence suggests that resilience and adaptive coping strategies can have direct and mediating effects on the relationship between occupational stress and psychological outcomes among healthcare professionals, functioning as potential protective factors[18]. Emotional intelligence may also influence the quality of interactions and relationships between healthcare professionals and patients[19]. Although emotional intelligence and resilience have increasingly been investigated as individual psychological resources, emerging evidence suggests that these constructs are interrelated. Emotional regulation, adaptive coping, and the ability to manage challenging interpersonal and occupational experiences[20]. Conversely, resilience may facilitate the effective application of emotional competencies when individuals encounter stressful or adverse circumstances. Understanding the relationship between these psychological resources is therefore important, particularly in nursing, where emotional demands and occupational stress are inherent components of clinical practice[21][22].

Despite the growing body of international literature on emotional intelligence, resilience, and burnout among healthcare professionals, limited research has specifically examined the relationship between intelligence and ego resilience among nursing officers working in Indian tertiary-care hospital settings. Differences in cultural context, organizational structure, staffing patterns, workload, and healthcare demands may influence these variables within a local institutional context may provide context-specific evidence and help identify areas for targeted professional and organizational interventions.[12]

Understanding the levels and relationship of emotional intelligence, ego resilience, and burnout among nursing officers may assist nursing administrators and educators in developing structured interventions aimed at strengthening emotional regulation, resilience, stress management, and professional effectiveness. Enhancing these psychological competencies may be particularly relevant in high-demand hospital environments, where nurses' emotional and cognitive functioning plays an important role in maintaining effective professional practice and quality patient care. [10][11]

In view of the existing research gap, the present study aims to assess the relationship between emotional intelligence, ego resilience, and burnout among nursing officers working at IMS & SUM Hospital, Bhubaneswar, Odisha.

Methods

Study design

A hospital-based cross-sectional descriptive study was conducted using a quantitative research approach.

Study settings

The study was carried out at IMS & SUM Hospital, Bhubaneswar, Odisha, a tertiary care teaching hospital providing multispecialty services.

Sample and Sampling

The study population consisted of 316 registered nursing officers working in various clinical departments of the hospital, were chosen through purposive sampling from December, 2024 to July, 2025.

Inclusion and exclusion criteria

Nursing officers with more than 6 months of clinical experience and willing to participate were included in the study. Those who were unavailable during the data collection period were excluded.

Ethical Approval

Prior to commencing the study, ethical approval was granted by SOA University Institutional Review Board (IRB) (SOADU/SNC/IRB/5/8/2025). The study was conducted in accordance with the ethical principles of the Declaration of Helsinki and relevant institutional and national ethical guidelines.

Consent to Participate

Written informed consent was obtained from all participants before data collection. The participants were informed about the purpose and procedures of the study, and participation was voluntary. Confidentiality of the information provided by the participants was maintained throughout the study.

Tools

A structured socio-demographic questionnaire was used to collect information regarding age, gender, religion, work experience, monthly income, living area, educational status, working area, duty hours, area of working, and professional rank. The standardized Ego Resilience Scale[23] consisted of 14 items and was used to assess the level of ego resilience. The Wong and Law Emotional Intelligence Scale (WLEIS)[24] consisted of 16 item and was used to assess the level of emotional intelligence. The Copenhagen Burnout Inventory (CBI)[25] comprised 19 items in personal burnout, work-related and client-related burnout domains. These standardized scales were administered using the questioning method and participate responded based on the past month. The reliability of Ego resilience scale, WLEIS were good with Cronbach's alpha values of 0.76, 0.88 and 0.785 respectively.

Data analysis

The collected data were coded, tabulated, and analyzed using descriptive and inferential statistics. Frequency, percentage, mean, and standard deviation were used to describe socio-demographic variables and levels of emotional intelligence, ego resilience and burn out. Chi-square test was applied to determine the association between study variables and selected socio-demographic characteristics. Correlation analysis was used to identify the relationship between emotional intelligence, ego resilience, and burnout, while multiple linear regression was used to identify the predictors of burnout. Statistical significance was set at $p < 0.05$.

Results

The mean ego resilience score was 34.00 (SD = 8.650), with 44.3% of nursing officers showing an undetermined level, 38.0% high, 9.8% low, and 7.9% very high resilience. The mean emotional intelligence score was 44.30 (SD = 15.705), with 49.1% having low, 28.8% moderate, and 22.2% high emotional intelligence.

The mean CBI score was 60.47 (SD = 12.940), with 56% experiencing moderate occupational burnout.

A total of 316 nursing officers participated in the study. The majority were aged <24 years (55.7%), female (78.8%), unmarried (74.1%), and Hindu (86.1%). Most had 1–2 years of work experience (44.0%) and worked 6–7 hours per day (32.3%). Nearly half belonged to joint families (48.7%). Regarding educational qualification, 58.5% held a Diploma in Nursing, while 34.8% had B.Sc. Nursing. Ward nursing officers constituted the largest group (37.7%), with most working in Cardiology (20.6%) and Neurology (20.3%). Notably, 80.1% had no previous exposure to a resilience enhancement program. [Table-1]

Table.1 Socio-demographic characteristics of participants (N=316)

Demographic Variable	Frequency	Percentage
Age		
<24y	176	55.7
25-50	139	44
>50y	1	0.3
Gender		
Male	67	21.2
Female	249	78.8
MARAITAL STATUS		
Married	82	25.9
Unmarried	234	74.1
RELIGION		
Hindu	272	86
Muslim	40	12.7
Christian	3	0.9
MONTHLY INCOME		
6000 to 8000	50	15.8
9000 to 12000	80	25.3
13000 to 16000	89	28.2
17000 to 24000	68	21.5
25000 to 35000	20	6.3
>35000	09	2.8
WORK EXPERIENCE		
1 to 2 year	139	44
2 to 4 year	102	32.3
4 to 6 year	44	13.9
Above 6 year	31	9.8
DUTY HOUR		
6 hour	95	30.1
6-7 hour	102	32.3
8-9 hour	90	28.5
More than 9 hour	29	9.2
TYPE OF FAMILY		
Nuclear	130	41.1
Joint	154	48.7
Extended	32	10.1
EDUCATIONAL STATUS		
Diploma in nursing	185	58.5

B.sc Nursing	110	34.8
M.sc Nursing	21	6.6
PROFESSIONAL RANK		
Ward nursing officer	119	37.7
ICU nursing officer	55	17.4
Cabin nursing officer	49	15.5
Infection control	21	6.6
OT nursing officer	49	15.5
Shift in charge	23	7.3
AREA OF WORKING		
Neurology	64	20.3
Cardiology	65	20.6
Nephrology	29	9.2
Gastrology	53	16.8
Oncology	32	10.1
Ent	13	4.1
Psychiatry	18	5.7
Gynecology	35	11.1
Padeiatric	07	2.2
ATTENDING PROGRAMME		
Yes	63	19.9
No	253	80.1

Pearson's correlation analysis revealed a strong positive and significant relationship between ego resilience and emotional intelligence ($r = 0.671$, $p < 0.001$). However, neither ego resilience nor emotional intelligence showed a significant relationship with occupational burnout ($r = 0.004$, $p = 0.948$ and $r = -0.098$, $p = 0.081$, respectively). [Table-2]

Table-2 : Correlation Between Ego Resilience, Emotional Intelligence and Occupational Burnout by Pearson correlation analysis

(n = 316)

Sl no	CRITERIA	r_s	p-Value
1	Ego Resilience and Occupational Burnout	0.004	0.948
2	Emotional Intelligence and Occupational Burnout	-0.098	0.081
2	Emotional Intelligence and Ego Resilience	0.671	**<0.001***

*P<0.05 is statistically significant.

A chi-square test was conducted to examine the association between emotional intelligence, ego resilience, and burnout with selected socio-demographic variables among nursing staff. Results revealed significant associations between nursing officer's gender ($\chi2 = 11.788$, $p = 0.008$), work experience ($\chi2 = 18.363$, $p = 0.032$), type of family ($\chi2 = 14.643$, $= 0.023$), professional rank ($\chi2 = 28.079$, $p = 0.021$), and prior exposure to a resilience enhancement program ($\chi2 = 15.931$, $p = 0.001$) with ego resilience.[Table-3]

Table-3 : Association Between Ego Resilience and Selected Socio-demographic Variables by using Chi-square analysis

(n = 316)

SL NO.	VARIABLES	LEVEL OF EGO RESILIENCE				CHI-SQUARE	DF	P VALUE
		LOW (11-22)	UE (23-34)	HIGH (35-46)	VERY HIGH (47-56)			
1.								
	GENDER							
	MALE	11	37	16	3	11.788	**3**	**.008**
	FEMALE	20	103	104	22			
2.								
	WORK EXPERIENCE				16			
	1-2 YEAR	11	49	63	8	18.363	**9**	**0.032**
	2-4 YEAR	11	52	31	0			
	4-6 YEAR	4	26	14	1			
	ABOVE 6 YEAR	5	13	12				

3.	**TYPE OF FAMILY**							
	NUCLEAR	9	49	62	10	14.648	6	0.023
	JOINT	17	72	50	15			
	EXTENDED	5	19	8	0			
4.								
	PROFESSIONAL RANK							
	WARD NURSING OFFICER	10	41	51	17	28.079	15	0.021
	ICU NURSING OFFICER	4	27	22	2			
	CABIN NURSING OFFICER	6	24	17	2			
	INFECTION CONTROL NURSING OFFICER	3	16	2	0			
	SHIFT INCHARGE	2	13	8	0			
5.	**ATTENDING PROGRAM**							
	YES	29	4	16	14	15.931	3	0.001
	NO	111	21	104	17			

***P<0.05 is statistically significant.**

In addition, nursing officer's gender ($\chi2 = 31.390, p =< 0.001$), marital status ($\chi2 = 6.552, p = 0.038$), religion ($\chi2 = 30.249, p = < 0.001$), monthly income ($\chi2 = 32.789, p < 0.001$), work experience ($\chi2 = 21.152, p = 0.002$), and duty hours per day ($\chi2 = 28.933, p < 0.001$), type of family ($\chi2 = 15.028, p = 0.005$), educational status ($\chi2 = 17.729, p = 0.001$), and professional rank ($\chi2 = 44.505, p < 0.001$) with emotional intelligence. [Table-4]

Table-4 : Association Between Emotional Intelligence and Selected Socio-demographic Variables by using Chi-square analysis

(n = 316)

SL NO.	VARIABLES	LEVEL OF EMOTIONAL INTELLIGENCE			CHI-SQUARE	DF	P VALUE
		LOW (16-	MODE RATE	HIGH (61-80)			

		40)	(41-60)				
1.	**GENDER**						
	MALE	4	10	53	31.390	**2**	**<0.001***
	FEMALE	66	81	102			
2.	**MARITAL STATUS**	11		49			
	MARRIED	59	22	106	6.552	**2**	**0.038***
	UNMARRIED		69				
3.	**RELIGION**						
	HINDU	66	83	123			
	MUSLIM	4	8	28	30.249	**2**	**<0.001***
	CHRISTIAN	0	0	3			
	OTHERS	0	0	1			
4.	**MONTHLY INCOME**						
	6000-8000						
	9000-12000	14	4	32			
	13000-16000	20	25	35	32.789	**10**	**<0.001***
	17000-24000	24	19	46			
	25000-35000	10	29	29			
	>35000	0	12	8			
		2	2	5			
5.	**WORK EXPERIENCE**						
	1-2 YEARS						
	2-4 YEARS	45	32	62	21.152	**6**	**0.002***
	4-6 YEARS	20	29	53			
	>6 YEARS	2	18	24			
		3	12	19			
6.	**DUTY HOURS PER DAY**						
	6 HOURS	36	28	31	28.933	**6**	**<0.001***
	6-7 HORS	16	34	52			
	8-9 HOURS	16	24	50			
	>9 HOURS	2	5	22			
7.	**TYPE OF FAMILY**						
	NUCLEAR FAMILY	33	46	51	15.028	4	**0.005***
	JOINT FAMILY	36	35	83			
	EXTENDED FAMILY	1	10	21			

8.	**EDUCATIONAL STATUS**						
	DIPLOMA IN NURSING	56	46	83			
	BACHELOR DEGREE IN NURSING	11	39	60	17.729	4	**0.001***
	MASTER DEGREE IN NURSING	3	6	12			
9.	**PROFESSIONAL RANK**						
	WARD NURSING OFFICER	47	36	36			
	ICU NURSING OFFICER	6	15	34			
	CABIN NURSING OFFICER	6	13	30	44.505	10	**<0.001***
	INFECTION CONTROL	1	4	16			
	OT NURSING OFFICER	5	17	27			
	SHIFT IN-CHARGE	5	6	12			

***P<0.05 is statistically significant.**

However, the association between burnout categories and selected socio-demographic and occupational variables was examined using Pearson's chi-square test. No statistically significant associations were observed between burnout category and age ($\chi^2 = 3.394$, df = 2, p = 0.183), gender ($\chi^2 = 0.020$, df = 2, p = 0.990), marital status ($\chi^2 = 0.058$, df = 2, p = 0.971), religion ($\chi^2 = 4.295$, df = 6, p = 0.637), monthly income ($\chi^2 = 16.255$, df = 10, p = 0.093), work experience ($\chi^2 = 6.188$, df = 6, p = 0.402), duty hours ($\chi^2 = 3.060$, df = 6, p = 0.801), type of family ($\chi^2 = 2.027$, df = 4, p = 0.731), educational status ($\chi^2 = 5.062$, df = 4, p = 0.281), professional rank ($\chi^2 = 2.558$, df = 10, p = 0.990), area of working ($\chi^2 = 7.761$, df = 16, p = 0.956), or programme participation ($\chi^2 = 1.780$, df = 2, p = 0.411). However, several contingency tables contained substantial proportions of cells with expected frequencies below five. Therefore, the findings should be interpreted cautiously, and appropriate alternative tests should be considered where necessary.

In multi linear regression, neither ego resilience nor emotional intelligence was a statistically significant predictor of occupational burnout, as both p-values were > 0.05. therefore, the combined contribution of ego resilience and emotional intelligence indicates no serious multicollinearity problem between the predictor variables.[Table-5]

TABLE-5 Multiple Linear Regression Analysis of Predictors of Occupational burnout

(n = 316)

SL	Predictor Variables	B	Std. Error	β	t-value	p-value
1	Constant	60.716	2.944		20.622	<0.001
2	Ego Resilience	0.189	**0.113**	**0.127**	**1.577**	0.095
3	Emotional Intelligence	-0.151	0.062	-0.183	-2.427	0.016

*P<0.05 is statistically significant.

Discussion

Most nursing officers had an undetermined level of ego resilience (44.3%), followed by high (38.0%), low (9.8%), and very high resilience (7.9%). Similar moderate-to-high resilience levels among nurses have been reported previously[26][27], indicating that resilience varies substantially across nursing populations.

Nearly half of the nursing officers demonstrated low emotional intelligence (49.1%), while 28.8% had moderate and 22.2% had high emotional intelligence. Previous studies have also reported variation in emotional intelligence levels among nurses, although moderate levels were more commonly observed[28][29].

More than half of the nursing officers had moderate occupational burnout (52.8%), while 5.0% and 1.0% had low and high burnout, respectively.[30] Previous studies similarly identified a substantial burden of occupational burnout and related work stress among nursing professionals[31], supporting the importance of workplace-based preventive strategies.

A significant positive correlation was observed between ego resilience and emotional intelligence (r = 0.671, p< 0.001). The mean scores were 34.00 ± 8.65 for ego resilience and 44.30 ± 15.70 for emotional intelligence, indicating that higher resilience was associated with greater emotional intelligence.

This finding is consistent with Aljarboa et al., who reported a positive relationship between resilience and emotional intelligence among nurses (r = 0.55, p = 0.023)[9]. Siffleet et al. also highlighted the role of emotional intelligence in emotional regulation, interpersonal functioning, and adaptation to clinical demands[32]. Together, these findings support the close relationship between resilience and emotional competence among nurses.

Ego resilience showed a weak negative and non-significant correlation with occupational burnout ($r = -0.052$, $p = 0.357$). This suggests that ego resilience alone may not substantially influence burnout in the present sample.

In contrast, Castillo-González et al. reported a significant inverse relationship between resilience and burnout ($r = -0.41$) among nurses[5]. Similarly, De la Fuente-Solana et al. identified work overload and professional factors as important contributors to burnout[33]. Differences in organisational conditions, work demands, and measurement approaches may explain the discrepancy.

Emotional intelligence showed a negligible and non-significant positive correlation with occupational burnout ($r = 0.007$, $p = 0.906$). This finding suggests that emotional intelligence alone may not protect nursing officers from burnout.

Getie et al. identified multiple individual, family-related, and workplace factors contributing to nurse burnout[34]. Similarly, Galanis et al. reported that increased workload, longer working hours, inadequate resources, and demanding work environments were important burnout-related factors[32]. These findings support the multifactorial nature of occupational burnout.

Neither ego resilience (B = −0.114, β = −0.103, $p = 0.178$) nor emotional intelligence (B = 0.046, β = 0.076, $p = 0.321$) significantly predicted occupational burnout. The absence of serious multicollinearity (tolerance = 0.550; VIF = 1.817) supports the validity of this finding.

Previous evidence has similarly emphasised the importance of workplace conditions in determining burnout[35]. Jiménez-García and Flor-Martínez further demonstrated that both individual and organisational interventions are important for reducing nurse burnout[36]. Thus, psychological resources alone may be insufficient to predict occupational burnout.

These findings are supported by Getie et al., who identified individual, family-related, and workplace factors as contributors to nurse burnout[35]. Similarly, previous evidence identified education, professional experience, and workload as significant determinants of burnout[37].

Overall, ego resilience was positively associated with emotional intelligence, whereas neither variable was significantly related to or predictive of occupational burnout. In contrast, occupational and socio-demographic factors showed significant associations with burnout. These findings suggest that strategies to improve resilience and emotional intelligence should be combined with organisational interventions addressing workload, duty schedules, staffing, compensation, and workplace support.

Limitations

This study has several limitations that should be considered while interpreting the findings. First, the study was conducted in a single tertiary care hospital, which may limit the generalizability of the results to other healthcare settings. Second, the use of a non-probability purposive sampling technique may introduce selection bias. Third, the study relied on self-reported questionnaires, which may be influenced by response bias or social desirability. Additionally, the cross-sectional design of the study does not allow for establishing causal relationships between emotional intelligence and ego resilience, burn out.

Conclusion

The findings of the present study revealed a significant positive relationship between ego resilience and emotional intelligence among nursing officers, indicating that nurses with higher resilience tend to have greater emotional intelligence. However, ego resilience and emotional intelligence were not significant predictors of occupational burnout. Occupational burnout was significantly associated with selected occupational factors such as income, work experience, duty hours, educational status, type of family, and professional rank. Strengthening resilience, emotional intelligence, and supportive workplace conditions may enhance nurses' wellbeing, professional performance, and the quality of patient care.

Declaration

Abbreviations

EI: Emotional Intelligence; **ER:** Ego Resilience; **CBI:** Copenhagen Burnout Inventory

Ethics approval and consent to participate

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki and relevant institutional and national ethical guidelines. Written informed consent was obtained from all participants before participation in the study.

Consent for publication

Not applicable.

Availability of data and materials

The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request, subject to appropriate ethical and institutional restrictions.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

SB contributed to the conceptualization and design of the study, data collection, and drafting of the manuscript. SP & SM supervised the study, provided critical revisions, and contributed to the interpretation of findings. SPS provided overall guidance, contributed to the development of the methodology, and critically reviewed the manuscript. SPS & SHM assisted in literature review and contributed to the academic writing of the manuscript. AS, PM, & SD supported data collection and SB & SPS assisted in analysis and tabulation. All authors read and approved the final manuscript.

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