Original Article :

Emotional Intelligence, Resilience and Burnout among Psychiatric Nurses: A Multisite Cross-Sectional Analysis in Post-Pandemic Mental Health Care

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Abstract

Background and Aims:

The provision of compassionate support to patients navigating complex mental health challenges represents a fundamental responsibility of psychiatric nurses. Yet, the cumulative burden of moral distress, systemic pressure, and emotional demands significantly elevates the susceptibility of this workforce to burnout. As healthcare systems transition into the post-pandemic era, identifying the psychological determinants that underpin workforce resilience has become imperative. While emotional intelligence is widely acknowledged as a pivotal nursing competency, its specific predictive capacity regarding resilience and burnout within psychiatric environments requires further empirical investigation. The study aimed to evaluate the predictive associations between emotional intelligence, resilience, and burnout among psychiatric nurses in the context of post-pandemic healthcare.

Methods:

Employing a stratified random sampling approach, this multisite, cross-sectional inquiry recruited 312 psychiatric nurses from five tertiary mental health institutions in Cairo, Egypt. Between July and October 2025, data acquisition occurred via the Schutte Self-Report Emotional Intelligence Test, the Connor-Davidson Resilience Scale, and the Maslach Burnout Inventory-Human Services Survey.

Results:

Analysis indicated a positive correlation between emotional intelligence and resilience ($r = .46$, $p < .001$) alongside a negative association with burnout ($r = -.42$, $p < .001$). Regression modeling demonstrated that emotional intelligence accounted for 38% of the variance in resilience levels. Furthermore, when combined, resilience and emotional intelligence explained 41% of the variance in burnout scores, following adjustments for demographic covariates.

Conclusions:

Higher levels of emotional intelligence and resilience are strong predictors of reduced burnout among psychiatric nurses. Interventions targeting these intrinsic psychological resources may be instrumental in sustaining workforce well-being in the post-pandemic landscape.

Keywords:

Emotional intelligence; Resilience; Burnout; Psychiatric nursing; Workforce well-being; Post-pandemic healthcare

Introduction:

Mental health conditions represent a substantial global burden, contributing to roughly one in eight disability-adjusted life years worldwide.[1] Within the mental health service infrastructure, psychiatric nurses are pivotal, delivering rehabilitative, psychosocial, and therapeutic interventions across crisis, community, and inpatient environments. Nevertheless, these professionals frequently navigate clinically intense scenarios ranging from high emotional labor and moral distress to patient aggression which significantly amplifies their vulnerability to occupational stress and burnout.[2] The operational strain of the COVID-19 pandemic exacerbated these existing challenges by intensifying workload demands and emotional fatigue, thereby highlighting the critical need to delineate the psychological assets that support nurse resilience.[3]

Burnout, which is characterized by depersonalization, emotional tiredness, and a diminished sense of professional accomplishment, remains a major concern in mental health care.[4] This phenomenon negatively impacts not only job satisfaction and staff retention but also therapeutic alliances, patient safety, and overall quality of care.[5] While structural and organizational remedies have been suggested, the literature has predominantly emphasized workload or institutional variables, often overlooking the internal psychological mechanisms that facilitate professional adaptation. Consequently, resilience and emotional intelligence (EI) have been identified as vital, though under-researched, constructs within the sphere of psychiatric nursing.[6,7]

Emotional intelligence acts as a crucial protective factor, defined as the capacity to perceive, comprehend, and regulate emotions. Existing evidence indicates that nurses possessing elevated EI exhibit superior coping efficacy and empathy.[8] However, the specific mechanisms through which EI mitigates burnout in psychiatric settings remain insufficiently mapped, especially in the post-pandemic era where adaptive functioning and emotional regulation are essential.[9] Furthermore, the majority of EI research in nursing has centered on acute or general care, leaving a gap regarding psychiatric environments defined by sustained emotional engagement. Additionally, comprehensive analyses of EI, resilience, and burnout in developing nations remain limited, particularly within post-pandemic frameworks.[5]

Resilience, conceptualized as the ability to positively adapt to adversity, functions as a dynamic mediator between health and stress.[10] In the context of psychiatric nursing, this construct embodies the emotional stability necessary to recover

from cumulative distress and aggression.[11]

Theoretical grounding for this inquiry is provided by Roy's Adaptation Model, which suggests that individuals sustain psychosocial balance via adaptive responses to environmental stimuli. Under this framework, EI is posited as a primary regulator of adaptive behavior, thereby bolstering resilience and diminishing burnout susceptibility.[12]

Based on Roy's Adaptation Model, the conceptual framework (Figure 1) positions emotional intelligence as an antecedent personal resource bolstering resilience, which subsequently mitigates burnout. Occupational and demographic factors (e.g., experience, gender, age) are treated as covariates. Despite increased interest in these variables, few studies have rigorously tested their predictive associations via multivariate models grounded in adaptation theory, specifically within post-pandemic, developing contexts.[13,14] Addressing this evidence gap is essential for designing interventions that improve clinical performance and workforce well-being.

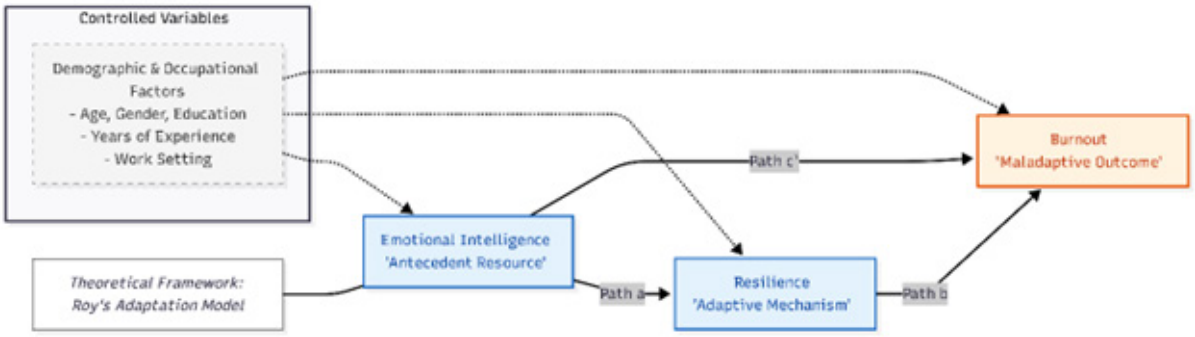


Figure 1: Theoretical integration of study variables within Roy's Adaptation Model.

Therefore, this study aimed to conduct a comprehensive examination of the predictive associations linking EI, resilience, and burnout among psychiatric nurses in post-pandemic settings, controlling for demographic variables. The specific objectives included:

1. Establishing the relationships among burnout, resilience, and emotional intelligence.
2. Evaluating the predictive validity of EI on resilience and burnout following adjustment for demographic characteristics.
3. Formulating evidence-based strategies to enhance emotional competence and workforce resilience in psychiatric practice.

Methodology:

Study Design and Rationale:

To investigate the predictive relationships among resilience, burnout, and emotional

intelligence (EI) in post-pandemic psychiatric nursing, a cross-sectional, descriptive-correlational research design was utilized. This methodological approach was selected to quantify the direction and magnitude of variable associations and identify predictors without experimental intervention. Reporting protocols adhered to the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines to guarantee replicability and methodological transparency.[15]

Study Setting and Duration:

The investigation took place across five primary tertiary psychiatric hospitals under Egypt's General Secretariat of Mental Health and Addiction Treatment: Helwan, Banha, Al-Khanka, Demira, and Abbasiya Psychiatric Hospitals. Serving the Delta and Greater Cairo regions, these institutions form the backbone of the national public mental health infrastructure. Each facility offers comprehensive services, including rehabilitation, emergency, outpatient, and acute inpatient care, within a high-intensity public health context. Reflecting the operational realities of the Egyptian public sector, these hospitals manage approximately 2,300 beds and face challenges such as resource limitations and high patient-to-nurse ratios. Data collection transpired between July and October 2025.

Population and Samples:

The target population included all registered psychiatric nurses (n = 950) who had at least one year of clinical experience at one of the participating facilities. Eligibility criteria required participants to be: (1) full-time employees; (2) actively practicing in mental health or psychiatric units; and (3) willing to participate voluntarily. Administrative staff and those on long-term leave were excluded. To ensure proportional representation, a stratified random sampling method was applied based on workforce size at each hospital. Sample size estimation using G*Power 3.1 (medium effect size $f^2 = 0.15$, power=0.80, $\alpha = 0.05$) indicated a requirement of 136 participants.[16] To account for potential attrition and improve external validity, 350 questionnaires were distributed, resulting in 312 valid responses (89.1% response rate), surpassing the minimum statistical requirement.

Instruments:

- **Demographics:** A researcher-designed tool collected data on gender, age, education, shift patterns, work setting, and years of experience.
- **Emotional Intelligence:** The Schutte Self-Report Emotional Intelligence Test (SSEIT), a 33-item scale, assessed domains of emotion regulation,

understanding, utilization, and perception. 17 Rated on a 5-point Likert scale (33–165 range), higher scores denote superior EI. The tool has proven internal consistency across cultures (α = .82–.96).[18]

- **Resilience:** The 25-item Connor-Davidson Resilience Scale (CD-RISC-25) measured domains such as control, spiritual influence, and personal competence. [19] Scored from 0–100, higher values indicate greater resilience. Internal consistency is well-established (**α** = .89–.93),[20] with the current study yielding an **α** = .93.
- **Burnout:** The Maslach Burnout Inventory-Human Services Survey (MBI-HSS) evaluated personal accomplishment, depersonalization, and emotional exhaustion.[21] Higher aggregate scores indicate severe burnout. Previous studies confirm high reliability (**α** =.71 to .90).[21,22]

Data Collection and Ethics:

Upon securing institutional approval, coordination with nursing directors facilitated access to participants. Research assistants received training on confidentiality and ethical engagement. Eligible nurses were recruited during shifts, provided with study details, and signed informed consent forms. To minimize workflow disruption, self-administered questionnaires were completed during breaks over a four-week period per site. Confidentiality was maintained by sealing completed forms in envelopes. Anonymity and voluntary participation were emphasized to reduce self-report bias. A pilot study with 30 nurses (excluded from final analysis) confirmed the cultural appropriateness and clarity of the tools.

Ethical clearance was granted by the Helwan University Faculty of Nursing IRB (No. HUNURSERC 2025/07/52/86), and the study adhered to the Declaration of Helsinki.[23]

Statistical Analysis:

Using IBM SPSS Statistics v25.0, data were screened for normality and multicollinearity (VIF < 2.0).[24] Missing data (<2%) were handled via expectation-maximization. Descriptive statistics summarized distributions, while Pearson correlation analyzed bivariate relationships. Hierarchical multiple regression assessed the predictive power of EI on resilience and burnout, controlling for demographics, with significance set at $p<.05$.

Results:

Sample Characteristics: As detailed in Table 1, the majority of participants were female (56.7%), held bachelor's degrees (74.0%), and fell within the 30–39 age bracket (45.5%). Approximately 70% possessed over six years of experience, with

64.1% working in acute inpatient units. Rotating shifts were the most common work pattern (74.7%).

Table 1: Sociodemographic and Professional Profile of the Sample (n = 312).

Variable	Category	n	%
Gender	Female	177	56.7
	Male	135	43.3
Age (years)	<30	68	21.8
	30–39	142	45.5
	≥40	102	32.7
Educational Level	Diploma	23	7.4
	Bachelor's	231	74.0
	Postgraduate	58	18.6
Years of Psychiatric Nursing Experience	1–5	96	30.8
	6–10	124	39.7
	>10	92	29.5
Primary Work Area	Acute inpatient units	200	64.1
	Community psychiatric care	74	23.7
Shift Pattern	Outpatient clinics	38	12.2
	Fixed day shift	79	25.3
	Rotating shifts	233	74.7

Descriptive Statistics: Table 2 highlights that participants exhibited moderate-to-high emotional intelligence (M=122.8, SD=15.3) and moderate resilience (M=71.6, SD=14.2). Burnout levels were moderate overall (M=61.3, SD=17.8), characterized by high emotional exhaustion (M=28.7) and moderate depersonalization (M=12.6).

Table 2: Descriptive Statistics and Psychometric Reliability of Study Scales.

Variable	Minimum	Maximum	Mean	SD	Cronbach's α
Emotional Intelligence (SSEIT)	78	165	122.8	15.3	.88
Resilience (CD-RISC-25)	34	98	71.6	14.2	.93
Burnout (MBI-HSS Total)	25	110	61.3	17.8	.84
-Emotional Exhaustion	9	54	28.7	9.4	.87
-Depersonalization	5	30	12.6	5.7	.79
-Personal Accomplishment	8	48	20	6.9	.81

Correlations: Bivariate analysis (Table 3) found significant associations: EI linked positively with resilience (r=.46, p<.001) and negatively with burnout. There is a significant negative correlation (r=-.58, p<.001) between resilience and burnout, indicating that greater adaptive capacity leads to less psychological tiredness.

Table 3: Bivariate Correlation Matrix for EI, Resilience, and Burnout.

Variable	1	2	3
1. Emotional Intelligence	—		
2. Resilience	.46***	—	
3. Burnout	–.42***	–.58***	—

***: Statistically significant at p < .001.

Predicting Resilience: Table 4 shows that while demographics alone were non-significant predictors, the addition of EI in Step 2 significantly enhanced the model (R^2 =.38, p<.001). EI acted as a potent predictor (β =.52, p<.001), accounting for 38% of the variance in resilience.

Table 4: Hierarchical Regression: Emotional Intelligence as a Predictor of Resilience.

Predictor	B	SE B	β	t	p
Step 1: Demographics					
Age	0.18	0.12	.08	1.46	.145
Gender (Female = 1)	1.73	1.92	.05	0.90	.369
Years of Experience	0.21	0.18	.07	1.17	.244
Model Summary (Step 1)	R^2 = .05; F (3,308) = 2.86, p = .092				
Step 2: Add Emotional Intelligence					
Emotional Intelligence	0.62	0.09	.52	6.87	<.001***
Model Summary (Step 2)	R^2 = .38; ΔR^2 = .33; ΔF (1,307) = 47.13, p < .001; F (4,307) = 47.13, p < .001				

***: p < .001. B = Unstandardized coefficient; SE B = Standard error of B; β = Standardized beta coefficient.

Predicting Burnout: In Table 5, the combined model of EI and resilience explained 41% of the variance in burnout (R^2 =.41, p<.001). Both resilience (**β** = -.28, p=.002) and EI (**β** = -.32, p<.001) served as significant independent negative predictors.

Table 5: Regression Modeling for Factors Influencing Occupational Burnout.

Predictor	B	SE B	β	t	p
Step 1: Demographics					
Age	–0.21	0.16	–.07	–1.31	.193
Gender (Female = 1)	–1.12	2.08	–.03	–0.54	.588
Years of Experience	–0.18	0.21	–.06	–0.87	.384
Model Summary (Step 1)	R^2 = .04; F (3,308) = 2.31, p = .098				
Step 2: Add Emotional Intelligence & Resilience					
Emotional Intelligence	–0.47	0.10	–.32	–4.72	<.001***
Resilience	–0.36	0.11	–.28	–3.24	.002**
Model Summary (Step 2)	R^2 = .41; ΔR^2 = .37; ΔF (2,306) = 45.72, p < .001; F (5,306) = 45.72, p < .001				

***: p < .001, **: p < .01. B = Unstandardized coefficient; SE B = Standard error of B; **β** = Standardized beta coefficient.

Discussion:

The present study offered a robust examination of the predictive dynamics between burnout, resilience, and emotional intelligence among psychiatric nurses in a post-pandemic context. The results empirically validate the study's framework, highlighting EI as a critical psychological asset that bolsters resilience and alleviates burnout in high-stress psychiatric environments.

Supporting the first objective, significant correlations were established among the core variables. The positive link between EI and resilience, paired with their inverse relationships to burnout, suggests that nurses capable of effectively managing emotions possess superior adaptive coping mechanisms. These findings corroborate existing literature indicating that high EI fosters psychological endurance and empathy amidst occupational stressors.[5,24]

Regarding the second objective, hierarchical regression confirmed that EI predicts resilience ($\beta = .52$), explaining 38% of the variance irrespective of demographic factors. This underscores EI as a foundational internal resource that facilitates the cognitive flexibility and emotional regulation required for resilience.[11] The lack of significant demographic influence further emphasizes that psychological determinants outweigh structural factors in shaping resilience.

The regression analysis predicting burnout revealed that both emotional intelligence and resilience jointly explained 41% of its variance, confirming the hypothesized protective effects. Emotional intelligence ($\beta = -.32$, $p < .001$) and resilience ($\beta = -.28$, $p = .002$) were significant negative predictors, indicating that emotionally intelligent and resilient nurses experience lower levels of emotional exhaustion and depersonalization. This dual influence suggests an interdependent pathway where emotional intelligence strengthens resilience, and together, they buffer the effects of workplace stressors that contribute to burnout. These findings extend previous evidence by providing quantitative confirmation, within a psychiatric nursing population, of the synergistic protective role of emotional competence and resilience in maintaining psychological well-being. [3,10]

In line with the third objective, the results offer actionable insights for evidence-based interventions. Enhancing emotional intelligence through structured training, reflective practice, and mindfulness programs can strengthen resilience and reduce burnout risk.[26] Furthermore, embedding emotional intelligence development within leadership programs and workforce policies aligns with evidence supporting psychological safety and

sustainable well-being. [27] These findings emphasize that cultivating emotionally intelligent, resilient nurses is not only beneficial for individual well-being but also essential for maintaining therapeutic engagement and high-quality patient care.[28]

The observed relationships also reinforce Roy's Adaptation Model, which conceptualizes resilience as an adaptive response facilitated by internal regulatory mechanisms such as emotional intelligence. Within this theoretical lens, emotionally intelligent nurses can more effectively interpret and respond to stressors, promoting adaptive functioning and minimizing burnout. However, while emotional intelligence and resilience accounted for a substantial proportion of variance in burnout, they did not eliminate it entirely, indicating that organizational factors such as staffing, workload, and institutional support remain vital in sustaining workforce well-being.

Overall, this study advances psychiatric nursing science by empirically validating a theoretically grounded model linking emotional intelligence, resilience, and burnout. It highlights that emotional intelligence is not a fixed trait but a learnable competence that can be developed to enhance psychological resilience, reduce burnout, and support sustainable professional functioning in high-stress care environments.

Limitations: The cross-sectional nature of the data restricts causal inferences. Potential confounders, such as patient acuity and trauma history, were not measured. Additionally, reliance on self-reporting may introduce response bias, and the single-nation context may limit cross-cultural generalizability.

Recommendations: Future scholarship should prioritize longitudinal designs to map causal pathways. Administratively, hospitals should institute routine burnout screening and establish recovery spaces. Curriculum development should incorporate modules on self-awareness and emotional regulation to better prepare nurses for the demands of psychiatric care. Finally, healthcare policymakers should incorporate these evidence-based strategies into workforce development and mental health policy frameworks to promote sustainable psychological well-being and patient care quality in post-pandemic psychiatric settings.

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