Iran J Psychiatry 2026; 21: 4: 431-440

Original Article *https://doi.org/10.18502/ijps.v21i4.22777*

Moral Distress, Psychological Resilience, and Burnout in Psychiatric Nurses: A Cross-Sectional Study with Social Support and Coping Strategies as Moderators

Ali Mlaghy Shakhat Al-Salhee[1], Ali Sabry Al-Yasari[1*], Mohammed Kadhim Saadoon[2], Hussein Khlaif Ketab[3], Manar Majeed Hameed[4]

Abstract

Objective: We investigated the potential mediating effect of psychological resilience on the relationship between moral distress and burnout in psychiatric nurses, and examined how coping mechanisms and social support moderate this relationship.
Method: A cross-sectional study was performed with 385 psychiatric nursing staff from four psychiatric hospitals in Iraq. Participants completed the Moral Distress Scale-Revised (MDS-R), Connor-Davidson Resilience Scale-10 (CD-RISC-10), Maslach Burnout Inventory-Human Services Survey (MBI-HSS), Multidimensional Scale of Perceived Social Support (MSPSS), and Brief Coping Orientation to Problems Experienced (Brief COPE) inventory. Structural equation modeling with bootstrapping (5,000 resamples) was utilized for testing mediation, and PROCESS-based moderated mediation analysis (Model 7) was utilized to explore the moderating roles of social support and adaptive coping.
Results: Moral distress showed a significant total effect on burnout (β = 0.52, P < 0.01), and psychological resilience was negatively linked to burnout (β = -0.36, P = 0.01). Resilience showed a significant indirect effect, consistent with its mediating role in the relationship between moral distress and burnout (indirect effect = 0.15, 95% CI [0.08, 0.23]), accounting for 28.8% of the total effect. The direct effect of moral distress on burnout remained significant after accounting for resilience (β = 0.37, 95% CI [0.23, 0.51], P = 0.009), indicating partial mediation. Social support and adaptive coping strategies significantly moderated the indirect pathway, with the mediation effect being stronger among nurses reporting higher social support (index of moderated mediation = 0.07, 95% CI [0.03, 0.12]) and greater use of adaptive coping strategies (index = 0.09, 95% CI [0.04, 0.14]).
Conclusion: Psychological resilience partially mediates the connection between moral distress and burnout in psychiatric nurses. The findings imply that resilience, social support, and coping skills may be promising targets for intervention development. However, experimental studies are needed to determine whether interventions addressing these factors are effective in reducing burnout in this population.

Key words: *Burnout; Coping Strategies; Moral Distress; Psychiatric Nursing; Resilience; Social Support*

1. Psychiatric and Mental Health Nursing Department, College of Nursing, University of Kerbala, Kerbala, Iraq.
2. Pediatric Nursing Department, College of Nursing, University of Kerbala, Kerbala, Iraq.
3. Adult Nursing Department, College of Nursing Department, University of Kerbala, Kerbala, Iraq.
4. Maternal and Neonatal Health Nursing Department, College of Nursing, University of Kerbala, Kerbala, Iraq.

***Corresponding Author:**
Address: Psychiatric and Mental Health Nursing, College of Nursing, University of Kerbala, Kerbala, Iraq, Postal Code: 56001.
Tel: 07702509364, Fax: 07702509364, Email: ali.mlaghee@uokerbala.edu.iq

Article Information:
Received Date: 2026/07/08, Revised Date: 2026/08/02, Accepted Date: 2026/08/19

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Burnout constitutes a pervasive occupational syndrome among healthcare professionals, described by depersonalization, emotional exhaustion, and declined individual fulfillment (1, 2). Prevalence of burnout in nurses has reached alarming proportions globally, with psychiatric nurses demonstrating particular vulnerability because of the emotionally demanding nature of their career, their exposure to patient aggression, and the ethical complexities inherent in mental health care delivery (3). Psychiatric nursing environments present unique challenges that distinguish them from other healthcare settings, including the management of involuntary treatment, administration of coercive interventions, and the navigation of therapeutic relationships with patients who may lack decision-making capacity (4, 5). Moreover, moral distress represents a critical yet often overlooked risk factor for burnout in psychiatric nursing. It occurs when healthcare professionals recognize ethically appropriate activities but are prevented from acting on them because of barriers, hierarchical pressures, or resource limitations (6). In psychiatric settings, moral distress frequently arises from situations involving forced medication, involuntary admission, seclusion, and restraint, that is, practices that may conflict with nurses' professional values and commitment to patient autonomy (7, 8). The cumulative effect of these ethically challenging encounters can precipitate significant psychological distress, erode professional identity, and ultimately contribute to burnout (9). A recent systematic review by Orgambídez *et al*. (10) synthesizing findings from 14 papers encompassing 2,425 healthcare professionals, established a correlation between emotional exhaustion and moral distress. However, this relationship may be more pronounced in psychiatric settings due to the frequency and intensity of morally challenging situations. Additionally, psychological resilience, determined by the capability to sustain or restore psychological well-being in the face of distress, has emerged as a significant protective factor against occupational stress in healthcare populations (11). Resilience encompasses both trait-like characteristics and dynamic processes that enable individuals to adapt positively to challenging circumstances (12). Studies have consistently demonstrated that greater resilience is linked to smaller burnout and reduced psychological distress among nurses (13). Albaqawi and Alshammari (14) recently found that resilience negatively influenced moral distress and indirectly mitigated moral impairment through the mediators of compassion fatigue and moral distress in Saudi nurses.

In spite of the numerous studies on moral distress and burnout, several important gaps persist in the literature. First, most studies have been conducted in high-income regions, with few representations of low- and middle-income settings where healthcare systems face additional challenges including resource scarcity, political instability, and post-conflict recovery (15). Second, while resilience has been identified as a protective factor, its specific function as a mediator between moral distress and burnout requires further elucidation. Third, potential moderating effects of social support and coping mechanisms on these relationships remain under-examined, despite theoretical and empirical evidence suggesting that these factors may enhance or diminish the protective effects of resilience (16). Social support, encompassing emotional, informational, and instrumental assistance from colleagues, supervisors, family, and friends, has been consistently linked to reduced burnout and enhanced well-being among healthcare professionals (17). Similarly, coping strategies (i.e., the cognitive and behavioral attempts used to manage stressful conditions) play a critical role in determining how individuals react to occupational stressors (18). Adaptive coping mechanisms, such as positive reframing, problem-solving, and seeking social support, are associated with better psychological outcomes, whereas maladaptive mechanisms, including substance use and avoidance, worsen distress (19). Social support and coping strategies are closely intertwined with resilience, both theoretically and empirically. Social support fosters resilience by providing reassurance and belonging, while adaptive coping builds resilience through effective problem-solving (20). Conversely, maladaptive coping erodes resilience (21). This bidirectional relationship suggests that social support and adaptive coping may enhance resilience's protective effects against occupational stress.

Kovanci and Özbaş (22) have recently demonstrated that the link between the intention to leave and moral resilience is mediated by moral distress, suggesting that resilience may exert its protective effects through reducing the experience of moral distress itself. However, this research did not explore the moderating roles of social support or coping strategies. The current research addresses these gaps by examining whether psychological resilience mediates the relationship between burnout and moral distress in psychiatric nurses, and by examining the moderating effects of social support and coping strategies on this mediated relationship. We hypothesize that: (I) moral distress will be positively linked to burnout, (II) psychological resilience will be negatively linked to burnout, (III) resilience will mediate the moral distress-burnout relationship, and (IV) social support and adaptive coping strategies will moderate the indirect pathway, with stronger mediation effects observed among nurses reporting higher levels of social support and greater employment of adaptive coping strategies.

Materials and Methods

A multi-center cross-sectional correlational design was administered across four psychiatric hospitals in Iraq: Al-Rashad Psychiatric Teaching Hospital in Baghdad, Ibn Rushd Psychiatric Hospital in Baghdad, Al-

Diwaniyah Psychiatric Hospital, and Al-Najaf Psychiatric Hospital. Data collection occurred between December 2025 and April 2026. Selection of multiple sites enhanced generalizability of the findings and allowed for inclusion of diverse practice settings across different regions of Iraq.

Participants and sampling

The study population included registered nurses working in psychiatric inpatient units. Inclusion criteria were possession of a recognized nursing qualification (diploma, bachelor's, or postgraduate degree), minimum six months of clinical experience in psychiatric care, current active involvement in direct patient care, and willingness to provide informed consent. Exclusion criteria were nursing administrators without direct patient contact, and nurses on extended leave during the data collection period. The sample size calculation was based on a priori power analysis for structural equation modeling (SEM) using the method recommended in (23). With an anticipated effect size of $f^2 = 0.15$ (medium), $\alpha = 0.05$, power = 0.95, the minimum required sample size for a model with up to 10 predictor variables was 276. To consider incomplete and non-response questionnaires, we targeted 400 potential participants. Using proportional stratified random sampling, nurses were selected from each hospital based on the distribution of nursing staff, ensuring representation across gender, age groups, education levels, and years of experience. Out of 420 nurses contacted, 385 returned fully completed questionnaires, amounting to a 91.7% participation rate. Participant demographics included sex, age, education level, years of psychiatric nursing experience, and hospital affiliation.

Measures

Moral Distress Scale-Revised (MDS-R)

The MDS-R (24) was employed to assess moral distress. This 21-item instrument evaluates both the intensity and frequency of morally challenging conditions encountered in clinical practice. Every item is assessed using two separate 5-point scales: one for frequency (ranging from 0 = never to 4 = very frequently) and another for intensity (ranging from 0 = none to 4 = great extent). A composite score is derived by multiplying the frequency and intensity sub-scores, producing an overall total between 0 and 336. The MDS-R has shown robust psychometric reliability in various clinical environments, with previously reported Cronbach's alpha coefficients consistently above 0.85 (25). In our sample, the scale achieved a Cronbach's α of 0.91, reflecting excellent internal reliability. In addition to the total scale, Cronbach's alpha was 0.89 for the frequency subscale, and 0.90 for the intensity subscale, indicating strong internal consistency for both dimensions. These values are consistent with previous psychometric evaluations of the MDS-R, which have reported frequency alphas ranging from 0.89 to 0.90 and intensity alphas ranging from 0.90 to 0.98.

Connor-Davidson Resilience Scale-10 (CD-RISC-10)

Psychological resilience was assessed using the CD-RISC-10, a shortened form of Connor and Davidson's original 25-item instrument (26). This ten-question tool evaluates an individual's capacity to manage stress and hardship, covering areas such as personal efficacy, tolerance for uncomfortable emotions, constructive adaptation to change, and spiritual or philosophical beliefs. Each item is scored on a 5-point Likert-type scale, from 0 (completely untrue) to 4 (almost always true), yielding a cumulative score between 0 and 40, with higher scores denoting stronger resilience. The abbreviated scale has shown robust validity and reliability across healthcare worker samples, with published alpha coefficients ranging from 0.85 to 0.89 (27). In our cohort, the scale achieved a Cronbach's α of 0.89.

Maslach Burnout Inventory-Human Services Survey (MBI-HSS)

Burnout was measured using the MBI-HSS (28), a 22-question inventory organized into three distinct dimensions: Emotional Exhaustion (EE, 9 items), Depersonalization (DP, 5 items), and diminished Personal Accomplishment (PA, 8 items, with reverse scoring). Each item employs a 7-point frequency scale, ranging from 0 (never) to 6 (daily). A composite burnout index was derived by aggregating the three subscale totals, with higher scores signifying more severe burnout. The MBI-HSS is recognized as the most extensively validated tool for burnout assessment among health professionals (29). In our sample, the overall scale demonstrated a Cronbach's α of 0.93, while the subscales yielded coefficients of 0.90 (EE), 0.84 (DP), and 0.79 (PA).

Multidimensional Scale of Perceived Social Support (MSPSS)

Perceived social support was measured using the MSPSS, a 12-item instrument that evaluates support originating from three distinct sources: family, friends, and significant others. Each item is answered on a 7-point Likert-type scale, with responses ranging from 1 (very strongly disagree) to 7 (very strongly agree), producing total scores between 12 and 84. Greater values correspond to higher levels of perceived support. The scale has consistently shown favorable psychometric characteristics in numerous populations and across various cultural settings (30). In the present sample, the overall Cronbach's α was 0.90, with subscale reliabilities of 0.89 (family), 0.88 (friends), and 0.87 (significant others).

Brief Coping Orientation to Problems Experienced (Brief COPE) Inventory

The Brief COPE was used to assess coping strategies. This 28-item scale measures 14 coping dimensions (two items each): active coping, self-distraction, substance use, denial, instrumental support, emotional support, venting, religion, behavioral disengagement, planning, positive reframing, humor, acceptance, and self-blame

(31). For the purposes of this study, we focused on two higher-order dimensions: adaptive coping (comprising planning, active coping, emotional support, humor, positive reframing, instrumental support, acceptance, and religion) and maladaptive coping (comprising substance use, behavioral disengagement, denial, self-distraction, venting, and self-blame), consistent with factor analytic studies of the Brief COPE (32). Items are rated on a 4-point scale (1 = I haven't been doing this at all to 4 = I've been doing this a lot). Cronbach's α was 0.86 for the adaptive coping scale and 0.79 for the maladaptive coping scale.

Data collection procedures

Ethical approval was obtained from the Institutional Review Boards of the participating hospitals and the University of Kerbala College of Nursing (approval number: CON-2025-042). Permission to utilize the research instruments was secured from the respective copyright holders. Written informed consent was secured from every participant following a thorough explanation of the research objectives, methods, possible hazards, and anticipated advantages. Individuals were also informed that they could withdraw from the study at any point without facing any repercussions, and they were given guarantees regarding the protection of their response data. Data collection was conducted by trained research assistants who were not involved in patient care at the participating institutions. Questionnaires were distributed in sealed envelopes during staff meetings and shift changes, with participants instructed to complete them in private and return them in sealed envelopes to ensure anonymity. The questionnaires required approximately 30-40 minutes to complete. To minimize common method bias, we utilized procedural strategies comprising distributing questionnaire components across different time points, protecting respondent anonymity, and counterbalancing scale items.

Statistical Analysis

Data analysis was implemented via SPSS version 26.0 and AMOS version 24.0 (IBM Corp., Armonk, NY). Preliminary analyses included data screening for outliers, missing values, and assumptions of multivariate analysis. Missing data were minimal (less than 3% across all variables) and were addressed using multiple imputation with 10 iterations. Basic descriptive indices were derived for every variable in the study, covering mean scores, standard deviations, and observed value ranges. Bivariate associations were examined using Pearson's correlation coefficients. To examine the hypothesized mediation model, we employed SEM with maximum likelihood estimation. The PROCESS macro for SPSS (Model 4) was used for bootstrapped mediation analysis with 5,000 bootstrap samples and 95% confidence intervals. The indirect effect was considered significant if the 95% confidence interval did not include zero. To test the hypothesized moderation effects, we extended the model using PROCESS Model 7 (moderated mediation), examining whether social support and adaptive coping moderated the relationship between psychological resilience and moral distress. We computed the moderated mediation index to evaluate whether the conditional indirect effect reached statistical significance. Given the cross-sectional nature of the data, Harman's single-factor test was performed to examine the extent of common method variance. The unrotated factor matrix from our exploratory factor analysis revealed that the initial factor captured 28.6% of the total variance, falling well below the 50% criterion. This outcome indicates that common method bias did not pose a substantial threat to the validity of our findings.

Results

The final sample comprised 385 psychiatric nurses from four hospitals across Iraq. Demographic characteristics are reported in Table 1. The sample was predominantly male (62.6%), reflecting the gender distribution among psychiatric nurses in Iraq. The mean age was 34.7 ± 9.2 years, with most participants (45.2%) under 30. Of the participants, 68.3% held nursing diplomas, 28.6% held bachelor's degrees, and 3.1% held postgraduate qualifications. Among the participants, 36.4% had 1–5, 37.9% had 6–10, and 25.7% had more than 10 years of psychiatric nursing experience. Cross-hospital distribution was relatively balanced: 28.1% from Al-Rashad, 24.9% from Ibn Rushd, 23.9% from Al-Diwaniyah, and 23.1% from Al-Najaf.

Table 1. Demographic Characteristics of Psychiatric Nurses Participated in the Study (N = 385)

Variable	Category	N	%
Gender	Male	241	62.6
	Female	144	37.4
Age Group	< 30 years	174	45.2
	30-39 years	102	26.5
	40-49 years	72	18.7
	≥ 50 years	37	9.6
Education	High-school diploma	263	68.3
	Bachelor	110	28.6
	Postgraduate	12	3.1
Experience	1-5 years	140	36.4
	6-10 years	146	37.9
	> 10 years	99	25.7

Table 2 provides the descriptive statistics for the primary variables examined in this study. On the MDS-R, participants exhibited moral distress levels ranging from moderate to high, with an average score of 108.2 ± 28.4. Psychological resilience scores averaged 30.8 ± 7.2 on the CD-RISC-10, indicating moderate resilience. Burnout levels were moderate to high, with a mean score of 68.4 ± 15.7 on the MBI-HSS. Perceived social support was relatively high (58.4 ± 14.6), with participants reporting higher support from family (20.1 ± 5.3) than from friends (18.7 ± 5.1) or significant others (19.6 ± 5.2). In terms of coping approaches, participants demonstrated moderate engagement with adaptive strategies (mean = 3.21, SD = 0.67), while their reliance on maladaptive methods was comparatively low (mean = 2.04, SD = 0.55). All variables exhibited acceptable spread and variability, with skewness and kurtosis values falling within the thresholds recommended for structural equation modeling (|kurtosis| < 7, |skewness| < 2).

Table 2. Moral Distress, Psychological Resilience, Burnout, Social Support, and Coping Strategies levels among Nurses

Variable	Mean	SD	Actual Range	Possible Range
Moral Distress (MDS-R total score)	108.2	28.4	18-196	0-336
Psychological Resilience (CD-RISC-10 total score)	30.8	7.2	8-40	0-40
Burnout (MBI-HSS total score)	68.4	15.7	22-112	0-132
Social Support (MSPSS total score)	58.4	14.6	18-84	12-84
Adaptive Coping (Brief COPE composite)	3.21	0.67	1.2-4.0	1-4
Maladaptive Coping (Brief COPE composite)	2.04	0.55	1.0-3.8	1-4

Note: MDS-R = Moral Distress Scale-Revised; CD-RISC-10 = Connor-Davidson Resilience Scale-10; MBI-HSS = Maslach Burnout Inventory-Human Services Survey; MSPSS = Multidimensional Scale of Perceived Social Support; Brief COPE = Brief Coping Orientation to Problems Experienced inventory.

Table 3 displays the Pearson correlation matrix for all study variables. Consistent with our hypothesis, moral distress exhibited a significant positive relationship with burnout (r = 0.53, P < 0.001), suggesting that elevated moral distress corresponded to higher levels of burnout. Psychological resilience was negatively correlated with both moral distress (r = -0.17, P = 0.031) and burnout (r = -0.44, P < 0.001), supporting the protective role of resilience. Social support was positively correlated with resilience (r = 0.35, P = 0.004) and negatively correlated with burnout (r = -0.33, P = 0.007). Adaptive coping showed similar patterns: positive correlation with resilience (r = 0.41, P = 0.002) and negative correlations with burnout (r = -0.35, P = 0.003) and moral distress (r = -0.21, P = 0.022). Maladaptive coping was positively associated with burnout (r = 0.38, P = 0.001) and moral distress (r = 0.29, P = 0.008), and negatively associated with resilience (r = -0.28, P = 0.006).

Table 3. Correlations among Moral Distress, Psychological Resilience, Burnout, Social Support, and Coping Strategies for Study Sample

Variable	1	2	3	4	5	6
1. Moral Distress	1.00					
2. Resilience	-0.17*	1.00				
3. Burnout	0.53***	-0.44***	1.00			
4. Social Support	-0.10	0.35**	-0.33**	1.00		
5. Adaptive Coping	-0.21*	0.41**	-0.35**	0.36**	1.00	
6. Maladaptive Coping	0.29**	-0.28**	0.38**	-0.21*	-0.16*	1.00

***P < 0.001, **P < 0.01, *P < 0.05 (two-tailed)

The mediation model exploring the role of psychological resilience in the moral distress-burnout connection had 1 degree of freedom ($\chi^2(1) = 2.84$, P = 0.092). With only one degree of freedom, the model is near-saturated, and fit indices (CFI = 0.997, TLI = 0.985, RMSEA = 0.049, SRMR = 0.017) should be interpreted cautiously, as they are less informative for just-identified or near-saturated models. Moral distress significantly predicted lower psychological resilience (β = -0.47, SE = 0.04, P = 0.005) and higher burnout (β = 0.41, SE = 0.05, P = 0.007). Psychological resilience significantly predicted lower burnout (β = -0.36, SE = 0.05, P = 0.01). Table 4 summarizes the findings from the mediation analysis. The overall effect of moral distress on burnout was statistically significant (β = 0.52, SE = 0.06, 95% CI [0.40, 0.64], P < 0.001). Following the inclusion of resilience as a mediating variable, the direct path remained significant though attenuated (β = 0.37, SE = 0.07, 95% CI [0.23, 0.51], P = 0.009). The indirect pathway via resilience was also significant (β = 0.15, SE = 0.04, 95% CI [0.08, 0.23]), confirming a partial mediating role. The mediated proportion of the total effect amounted to 28.8% (95% CI: 15.8–34.4%). The path coefficient from moral distress to resilience (β = -

0.47) is larger than its bivariate correlation (r = -0.17). This discrepancy arises because path coefficients are partial estimates controlling for other model variables, whereas correlations are unadjusted. Moderator variables and simultaneous estimation of multiple parameters may further explain this difference.

Table 4. Mediation Effects of Psychological Resilience in the Relationship between Moral Distress and Burnout among Nurses

Path	Effect (β)	SE	95% CI	P-value
Total Effect (MD → Burnout)	0.52	0.06	[0.40, 0.64]	< 0.001
Direct Effect (MD → Burnout)	0.37	0.07	[0.23, 0.51]	0.009
Indirect Effect (via Resilience)	0.15	0.04	[0.08, 0.23]	0.037

Note: MD = Moral Distress. CI = Confidence Interval. Indirect effect is significant as CI excludes zero.

We next examined whether social support and adaptive coping moderated the indirect effect of moral distress on burnout through resilience. Separate models were tested for each moderator, followed by a combined model (see Table 5). The interaction between moral distress and social support significantly predicted resilience (β = 0.21, SE = 0.06, P = 0.024). To interpret this interaction, simple slopes were calculated at three levels of social support: one standard deviation below the mean (low), at the mean (moderate), and one standard deviation above the mean (high). The conditional indirect effects of moral distress on burnout through resilience were significant at all three levels but were strongest among participants with high social support (indirect effect = 0.23, 95% CI [0.14, 0.33]), followed by moderate (indirect effect = 0.17, 95% CI [0.10, 0.25]) and low (indirect effect = 0.11, 95% CI [0.05, 0.18]) social support. The index of moderated mediation was 0.07 (SE = 0.02, 95% CI [0.03, 0.12]), confirming that the indirect effect was significantly stronger at higher levels of social support. Furthermore, the interaction between moral distress and adaptive coping significantly predicted resilience (β = 0.24, SE = 0.06, P = 0.017). Simple slopes analysis revealed that the negative relationship between moral distress and resilience was attenuated at higher levels of adaptive coping. The conditional indirect effects were significant across all levels of adaptive coping, but were strongest at high levels (indirect effect = 0.25, 95% CI [0.16, 0.35]), followed by moderate (indirect effect = 0.18, 95% CI [0.11, 0.26]) and low (indirect effect = 0.11, 95% CI [0.05, 0.19]) adaptive coping. The index of moderated mediation was 0.09 (SE = 0.03, 95% CI [0.04, 0.14]), confirming the moderating role of adaptive coping.

A combined moderated mediation model including both social support and adaptive coping as moderators demonstrated excellent fit, as shown in Table 5. Both social support and adaptive coping significantly moderated the moral distress-resilience relationship (social support: β = 0.19, SE = 0.06, P = 0.033; adaptive coping: β = 0.22, SE = 0.06, P = 0.021). The conditional indirect effects were strongest when both social support and adaptive coping were high (indirect effect = 0.27, 95% CI [0.18, 0.38]) and weakest when both were low (indirect effect = 0.09, 95% CI [0.04, 0.16]). The combined model elucidated a considerable portion of variance in burnout (R^2 = 0.41) and resilience (R^2 = 0.39).

Table 5. Conditional Indirect Effects of Moral Distress on Burnout through Resilience at Different Levels of Social Support and Adaptive Coping

Moderator	Interaction β (SE)	Conditional Indirect Effects [95% CI]	Index of Moderated Mediation [95% CI]	Model Fit Indices
Social Support	0.21* (0.06)	Low (-1 SD): 0.11 [0.05, 0.18] Moderate (Mean): 0.17 [0.10, 0.25] High (+1 SD): 0.23 [0.14, 0.33]	0.07 [0.03, 0.12]	$\chi^2(3)$ = 6.42, P = 0.093 CFI = 0.994, TLI = 0.980 RMSEA = 0.054, SRMR = 0.021
Adaptive Coping	0.24* (0.06)	Low (-1 SD): 0.11 [0.05, 0.19] Moderate (Mean): 0.18 [0.11, 0.26] High (+1 SD): 0.25 [0.16, 0.35]	0.09 [0.04, 0.14]	$\chi^2(3)$ = 5.98, P = 0.108 CFI = 0.995, TLI = 0.983 RMSEA = 0.051, SRMR = 0.019
Combined Model (Social Support + Adaptive Coping)	Social Support: 0.19* (0.06) Adaptive Coping: 0.22* (0.06)	Low Support + Low Coping: 0.09 [0.04, 0.16] High Support + High Coping: 0.27 [0.18, 0.38]	-	$\chi^2(5)$ = 8.31, P = 0.140 CFI = 0.997, TLI = 0.991 RMSEA = 0.042, SRMR = 0.014 R^2 (Burnout) = 0.41 R^2 (Resilience) = 0.39

Note: *P < 0.05, CFI = Comparative Fit Index, TLI = Tucker-Lewis Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean Square Residual.

Discussion

The current research investigated the mediating role of psychological resilience in the moral distress-burnout connection among psychiatric nurses in Iraq, and examined whether coping strategies and social support moderated this indirect pathway. The findings confirm that moral distress is strongly linked to burnout, and that resilience significantly mediates this relationship, accounting for nearly 30% of the total effect. Importantly, the protective influence of resilience was substantially enhanced by social support and adaptive coping strategies, suggesting that these factors operate synergistically to buffer against the psychological consequences of ethically challenging work environments. The robust positive correlation between burnout and moral distress found in our sample ($r = 0.53$) is consistent with the broader literature (33, 34). Recent research has demonstrated that nurses caring for patients amid the COVID-19 crisis reported secondary traumatic stress that correlated positively and strongly with burnout ($r = 0.61$). Conversely, social support from family members, friends, and significant others was found to have negative associations with both traumatic stress and burnout outcomes in the same population (35). The unique ethical challenges inherent in psychiatric nursing, including the administration of coercive interventions and management of involuntary treatment, appear to create conditions where moral distress accumulates more rapidly and exerts greater psychological toll than in other specialties. A qualitative research examining psychological mechanisms employed by healthcare workers to cope with moral distress identified eight distinct strategies, including reframing the condition, sharing and meeting with colleagues, and tolerating the situation, with most professionals employing multiple strategies concurrently (36).

The mediation analysis revealed that resilience is consistent with a pathway through which moral distress contributes to burnout, but the partial nature of this mediation indicates that resilience does not fully explain this relationship. This result is consistent with current views that frame resilience as a malleable quality subject to development through deliberate intervention, rather than a stable, inherent attribute (37, 38). In a comprehensive review of trauma mitigation approaches for psychiatric nursing staff, three overarching strategies emerged consistently across studies: interpersonal resources (encompassing peer and supervisory backing, formal assistance, and informal family or social networks), organizational measures (fostering individual resilience and strengthening collective team resilience), and preservation of personal assets (39). These findings underscore that resilience-building should complement, not replace, organizational efforts to address the structural causes of moral distress. Moreover, both social support and adaptive coping significantly strengthened the indirect effect, with the mediation effect being substantially stronger among nurses with high social support and adaptive coping compared to those with low levels of these resources. An investigation into the protective roles of social support and resilience against occupational burnout in nursing populations revealed that higher levels of each were independently linked to lower burnout severity, with resilience exerting a notably stronger buffering influence (40). Additional evidence indicates that social support serves to attenuate the detrimental impact of secondary traumatic stress on burnout, functioning as a significant partial mediator in this association (41, 42).

The combined model, which included both moderators simultaneously, explained 41% of the variance in burnout, indicating that the integration of individual, interpersonal, and coping resources yields a comprehensive structure for comprehending burnout vulnerability. The synergistic effect observed suggests that interventions should not target resilience in isolation, but should simultaneously address social support networks and coping skills development. Therefore, organizations should consider implementing peer support programs, ethics debriefing sessions, and resilience training as complementary strategies to support psychiatric nursing staff. Hospital administrators should consider implementing the following organizational strategies: establishing safe staffing models with adequate nurse-to-patient ratios (43); fostering a safe, learning-oriented workplace culture that normalizes confidential mental health support and addresses stigma (44); ensuring managerial support and visible leadership commitment to nurse well-being as a strategic priority; cutting low-value administrative work to preserve direct patient care time; and implementing formal organizational strategies for dealing with moral distress, rather than relying solely on informal, nurse-initiated coping mechanisms. While individual resilience and coping skills are valuable, they cannot compensate for inadequate staffing, lack of administrative support, or an unsupportive ethical climate.

Limitation

Several limitations warrant consideration. The cross-sectional nature of this study prevents us from drawing causal conclusions, and future investigations employing longitudinal designs will be necessary to clarify the directional pathways among these constructs. Although self-reported data carry inherent risks of common method variance and socially desirable responding, the Harman single-factor test indicated that such bias was unlikely to have substantially influenced our results. Additionally, the sample was limited to nurses working in four Iraqi hospitals, which may restrict the transferability of our findings to different cultural settings, healthcare infrastructures, or nursing practice areas. Additionally, the composite burnout score may have obscured differential relationships with specific burnout dimensions, and the absence of organizational

variables such as workload and staffing levels limited our ability to examine contextual influences. The study also did not assess participants' pre-existing mental health conditions or trauma histories, which may influence resilience and vulnerability to burnout. Subsequent investigations would benefit from adopting longitudinal methodologies, integrating objective assessment tools, and exploring these associations across a broader range of contexts.

Conclusion

This study makes several specific contributions to the understanding of moral distress and burnout in psychiatric nurses. First, it is among the first to examine these relationships in an Iraqi context, where healthcare systems face unique challenges including resource scarcity and post-conflict recovery. Second, by testing a moderated mediation model, the research reveals that the protective role of resilience is not uniform; it is significantly enhanced by social support and adaptive coping, with the indirect effect being strongest when both resources are high (indirect effect = 0.27) and weakest when both are low (indirect effect = 0.09). Third, the combined model elaborated 41% of the variance in burnout, highlighting that individual, interpersonal, and coping resources collectively provide a comprehensive framework for understanding burnout vulnerability. Practically, these findings suggest that hospital administrators should prioritize dual-pronged interventions: building resilience and coping skills at the individual level while simultaneously addressing systemic factors such as staffing, managerial support, and ethical debriefing structures. Prospective studies are necessary to clarify the temporal evolution of these associations and to assess the efficacy of culturally tailored, context-specific interventions within this population.

Acknowledgment

The authors would like to express their sincere gratitude and respect to all nursing staff who participated in this study.

Funding

None.

Conflict of Interest

None.

Author's Contributions

All authors contributed equally in all aspects of this study, such as conception and design, data collection, data analysis and interpretation, drafting and critical revision of the manuscript.

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