Relationships Among Palliative Care, Ethical Climate, Empowerment, and Moral Distress in Intensive Care Unit Nurses

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Background Intensive care unit nurses experience moral distress when they feel unable to deliver ethically appropriate care to patients. Moral distress is associated with nurse burnout and patient care avoidance.

Objectives To evaluate relationships among moral distress, empowerment, ethical climate, and access to palliative care in the intensive care unit.

Methods Intensive care unit nurses in a national database were recruited to complete an online survey based on the Moral Distress Scale–Revised, Psychological Empowerment Index, Hospital Ethical Climate Survey, and a palliative care delivery questionnaire. Descriptive, correlational, and regression analyses were performed.

Results Of 288 initiated surveys, 238 were completed. Participants were nationally representative of nurses by age, years of experience, and geographical region. Most were white and female and had a bachelor's degree. The mean moral distress score was moderately high, and correlations were found with empowerment (r=-0.145; P=.02) and ethical climate scores (r=-0.354; P<.001). Relationships between moral distress and empowerment scores and between moral distress and ethical climate scores were not affected by access to palliative care. Nurses reporting palliative care access had higher moral distress scores than those without such access. Education, ethnicity, unit size, access to full palliative care team, and ethical climate explained variance in moral distress scores.

Conclusions Poor ethical climate, unintegrated palliative care teams, and nurse empowerment are associated with increased moral distress. The findings highlight the need to promote palliative care education and palliative care teams that are well integrated into intensive care units. (*American Journal of Critical Care.* 2018;27:295-302)

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Nurses' moral distress has been investigated across disciplines in a variety of settings since the 1980s.[1-6] Moral distress is "a form of distress that occurs when one knows the ethically correct thing to do, but is prevented from acting on that perceived obligation."[7] Moral distress is distinct from moral dilemma, in which an ethically correct path is not clear. An individual experiencing moral distress holds a belief or perception about the ethically correct action but is prevented from acting upon that belief, leading to a loss of personal integrity. Negative consequences, such as burnout, moral residue, and patient avoidance behaviors, are associated with accumulated, unresolved moral distress.[8-11]

Ethical climate, a reflection of perceived work environment related to the management of ethical issues in an intensive care unit (ICU) at the organizational level, includes relationships between nurses and leadership, coworkers, and physicians and is associated with moral distress.[5,9,11] Empowerment is also associated with moral distress because it affects perceived self-determination in practice within a work setting.[12]

More than 500 000 nurses work in ICUs. Of the 5.7 million individuals admitted annually to ICUs, 10% to 29% die.[13,14] Issues faced during end-of-life care continue to rank highly as triggering scenarios for moral distress of nurses and are associated with both internal(individual) and external (environmental) factors.[1,5,12,15,16] Decades of study reveal high levels of moral distress; however, little evidence of effective interventions is available.[1,11,12,17-19] ICU nurses remain frontline care providers to critically ill patients, and as the health care system focuses on improving care for the dying, ICU nurses play a pivotal role.

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Palliative care has evolved into an interdisciplinary field aiming to improve quality of life for seriously ill patients through collaborative models that include high-level communication, goal clarification, and aggressive management of signs and symptoms. In 1995, researchers in a landmark study[20] reported poor-quality end-of-life care; this study marked a significant shift in end-of-life care processes. Recent efforts have aimed to include palliative care in standard ICU treatment plans.[21,22] Organizations have reported successful integration of palliative care services into their ICUs, although integration is inconsistent across ICUs.[21] The Center to Advance Palliative Care has developed a model that guides integration of ICU-focused teams and includes structured guidelines and ongoing reports of palliative care initiatives.[23] Having access to a palliative care team means an interdisciplinary and collaborative approach to palliative care, with quality communication to individualize care plans. This approach could improve organizational ethical climate and lower levels of moral distress for nurses. Organizational ethical climate can be described as an organization's support for ethically challenging situations and an opportunity for engagement with individuals on ethical issues.[24]

No studies to date have directly evaluated the relationship between access to palliative care services and ICU nurses' moral distress. The overall goal of this study was to evaluate the relationships among ICU nurses' moral distress, perceived psychological empowerment, ethical climate of the ICU, and access to palliative care.

Study Aims

The study hypotheses were as follows: (1a) Increased levels of moral distress are associated with a poor ethical climate. (1b) Access to palliative care affects the relationship between ethical climate and moral distress. (2a) Increased levels of moral distress are associated with decreased empowerment. (2b) Access to palliative care affects the relationship between moral distress and empowerment. (2c) A curvilinear relationship exists between moral distress and empowerment. (3) Access to a full specialist

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palliative care team is associated with lower levels of moral distress.

Methods

We conducted a nationwide web-based survey via the American Association of Critical-Care Nurses (AACN) e-newsletter (>10 000 recipients, untracked for receipt of email). Potential participants included critical care nurses who receive e-newsletters or who access AACN's social media (an unknown number of viewers). Criteria for participation included the following: current employment as an ICU nurse, provision of direct patient care in an adult ICU, and having provided care for a dying patient within the past 6 months. A total of 288 potential qualified participants opened the survey and agreed to the informed consent; 235 participants completed the survey, yielding an 82% completion rate. Three other participants completed most of the survey, including key variables. These participants were included, yielding a total sample size of 238. We identified no significant differences in demographics between those who did and did not complete the survey. Participant demographics did not significantly differ from AACN member demographics. A power analysis indicated that the needed sample size was at least 222 participants, and the recruitment goal was met in 1 week in March 2015. The University of California, San Francisco, granted ethical approval for human participants.

Measurement

The survey included 3 standardized instruments and 1 questionnaire developed specifically for this study. The Moral Distress Scale–Revised (MDS-R) includes 21 items describing specific scenarios, and participants are asked to rate each item for frequency and intensity of moral distress.[15] Calculated composite scores have a possible range of 0 to 336, with higher scores indicating higher levels of distress.

The Hospital Ethical Climate Survey (HECS) is a 26-item scale with 5 domains relating to nurses' relationships with patients, peers, physicians, managers, and the hospital.[24] Each item is rated from 1 to 5, and calculated composite mean scores range from 1.00 to 5.00. A score of greater than 3.50 is interpreted as a positive ethical climate.

The Psychological Empowerment Instrument (PEI), a measure of perceived work environment, includes 12 statements that describe the participant's self-perception.[25] Calculated composite mean scores range from 1.00 to 7.00, with higher scores reflecting greater perceived empowerment.

We developed a questionnaire to assess nurses' perceptions of access to, use of, and barriers to palliative care in the ICU. We created questions with input from previous studies, palliative care researchers, ICU nurses, and palliative care clinicians and pilot tested the questionnaire with a small group of ICU nurses. The questionnaire included triggers for consultation, methods of palliative care inclusion on a patient's care team, and the level of nurse education on palliative care topics. This study focused only on the questions related to palliative care access.

Data Collection and Analysis

We collected data with an online survey tool (Qualtrics) administered through the University of California, San Francisco. We reviewed the data and then imported them into statistics software (SPSS version 22.0, IBM) for analysis. We used the Cronbach α to analyze instrument scores for reliability (scores: MDS-R = 0.97, HECS = 0.93, and PEI = 0.89). We assessed frequencies, descriptive statistics, and distributions and evaluated correlations among primary independent variables, demographic characteristics, and moral distress. We included variables found to be significantly associated with moral distress in a multiple regression model. Categorical variables were dummy-coded as dichotomous variables, with a designated reference variable for analysis in the regression model.

> A nationwide survey . . . of critical care nurses currently in . . . adult ICU[s] . . . caring for dying patients.

Previous study findings are equivocal regarding ICU experience as a significant factor for the explanation of moral distress.[2,11,26,27] Therefore, we included ICU experience in the model as a potentially meaningful covariate in the overall regression analysis.

Results

Study participants were primarily white and female, and most held a bachelor's degree in nursing (Table 1). A broad range of facility types and sizes were represented. Seventy-nine percent of participants (185 of 235) reported that they felt confident to describe palliative care in the ICU setting, suggesting that they had knowledge and understanding of the definition of palliative care. Seventy-four percent of participants (175 of 235) reported having routine interdisciplinary patient rounds, and for 92% of these (161 of 175), rounds included the bedside nurse. Twenty-nine percent of nurses (67 of 235) could

Table 1
Description of study participants and facilities

Demographics (N = 238)	% (n)	Mean (SD), range
Individual		
Female	90 (214)	–
Race		
White	82 (194)	–
African American	10 (23)	–
Asian	5 (13)	–
Other/decline to state	3 (8)	–
Hispanic ethnicity	12 (29)	–
Age, y	–	38 (11), 20-70
Experience as nurse, y	–	12 (11), <1-49
Experience in ICU, y	–	8 (9), <1-43
Educational degree		
Diploma in nursing	8 (19)	–
Associate's	16 (39)	–
BSN	62 (148)	–
MSN and beyond	13 (32)	–
Shift worked		
Day	50 (119)	–
Evening	6 (15)	–
Night	23 (55)	–
Mixed	21 (49)	–
Hours worked in 2 weeks	–	66 (22), <1-120
Facility		
Geographic region		
West	23 (39)	–
South	26 (62)	–
Midwest	29 (70)	–
Northeast	22 (52)	–
Community/public hospital[a]	79 (187)	–
Academic medical center	33 (79)	–
Teaching (nonacademic) center	27 (65)	–
Nonteaching facility	40 (94)	–
Tertiary referral center	45 (107)	–
No. of beds in the unit	–	24 (25), 1-180

Abbreviations: BSN, bachelor of science in nursing; ICU, intensive care unit; MSN, master of science in nursing.
[a] Versus private hospital.

request palliative care consultation without a direct physician order.

MDS-R scores were from 0 to 225, with a mean (SD) score of 96.5 (55.8); higher scores reflect greater distress. The HECS scores were from 1.96 to 5, with a mean (SD) score of 3.9 (0.5); higher scores indicate a positive ethical climate. PEI scores were from 1 to 7 (possible 1-7), with a mean (SD) score of 5.3 (0.8); higher scores indicate greater perceived empowerment. Access to a full palliative care team was defined as specialist palliative care clinicians, including physicians, nurses, social workers, and spiritual care practitioners. Seventy-three percent of participants (171 of 235) claimed access to a full palliative care team.

Moral distress was negatively correlated with empowerment (Table 2). Analysis of a curvilinear relationship between empowerment and moral distress was statistically significant (R^2 change = 0.02; F = 4.866; P = .03) in regression analysis. Participants scoring lowest on the PEI scale had lower MDS-R scores, participants scoring highest on the PEI scale had lower MDS-R scores, and participants scoring moderately high on the PEI had higher MDS-R scores. All associations were small but statistically significant. We analyzed MDS-R subscales for moral distress frequency and intensity in relationship to the PEI score. We found a negative correlation (r = -0.188; P = .005) between moral distress frequency and PEI score. Participants with higher empowerment scores had lower moral distress frequency scores. We found no significant relationship between moral distress intensity and PEI score. These findings support our study hypotheses. Contrary to the study hypothesis, we found no moderating effect of access to palliative care in the relationship between empowerment and moral distress.

Moral distress and ethical climate were negatively correlated, with moral distress levels lower in a positive ethical climate, thereby supporting the study hypothesis. The association between ethical climate and moral distress was not influenced by access to palliative care.

We found a weak but significant correlation between access to palliative care and the experience of moral distress. Nurses reporting access to a full palliative care team reported higher levels of moral distress. The mean (SD) MDS-R score for participants with access to a full palliative care team was 102.3 (57.2), which was 22.5 points higher than the mean MDS-R score of those who did not have access to a full palliative care team (mean [SD], 79.8 [49.4]). This finding was contrary to the study hypothesis.

Multiple regression findings show that 218 participants were included after listwise deletion (Table 3). Factors that significantly contributed to explaining variance in moral distress were ethical climate, access to a full palliative care team, number of beds in the unit, ethnicity, and educational degree. Ethical climate was the largest unique contributor to the variance in levels of moral distress, with more positive ethical climates associated with lower levels of moral distress. Participants working in units with more beds reported higher levels of

Table 2
Univariate analyses with moral distress (total score on Moral Distress Scale–Revised)

Correlations between independent variables and MDS-R score		
Independent variable (N = 218)	***r***	***P* value[a]**
Hospital Ethical Climate Survey score	-0.354	<.001[a]
Psychological Empowerment Instrument	-0.145	.02[a]
Number of beds in intensive care unit	0.251	<.001[a]
Access to full palliative care team[b]	0.196	.004[a]
Facility: tertiary referral center	-0.166	.007[a]
Years of experience in intensive care units	0.061	.18

Analysis of variance and post hoc comparisons with MDS-R score			
		***F*=6.314, *P*<.001[a]**	
Race	**n**	**Mean (SD), range**	**95% CI**
White	177	102.86 (52.75), 2-233	95-110
African American	21	51.38 (39.68), 1-126	33-69
Asian	12	73.92 (55.67), 0-149	39-109
Other	4	93.4 (11.64), 78-106	75-112
Decline to state	4	42.75 (59.82), 5-132	-52 to 138
Mean difference post hoc			
White vs African American		51.48, *P*<.001[c]	No significant difference between other races
		***F*=9.932, *P*<.001[a]**	
Educational degree	**n**	**Mean (SD), range**	**95% CI**
Diploma in nursing	19	41.25 (54.49), 1-181	15-67
Associate's	36	80.44 (51.27), 13-183	63-98
BSN	136	104.71 (50.84), 0-233	96-113
MSN and beyond	27	103.62 (48.75), 29-233	84-123
Mean difference post hoc			
Diploma vs associate's		-39.22, *P*=.04	No significant difference between other education variables
Diploma vs BSN		-63.50, *P*<.001[d]	
Diploma vs MSN and beyond		-62.42, *P*<.001[d]	
		***F*=5.005, *P*=.008[a]**	
Facility type	**n**	**Mean (SD), range**	**95% CI**
Academic medical center	73	107.87 (60.62), 2-233	94-122
Teaching (nonacademic) center	60	98.49 (49.13), 13-233	86-111
Nonteaching/nonacademic medical center	85	81.56 (48.60), 0-217	71-92
Mean difference post hoc			
Nonteaching vs academic medical center		-26.32, *P*=.006[e]	No significant difference between other facility types

Abbreviations: BSN, bachelor of science in nursing; MDS-R, Moral Distress Scale–Revised; MSN, master of science in nursing.
[a] *P*<.05 after Bonferroni adjustment was considered statistically significant.
[b] Specialist in palliative care: physician, nurse, social worker, spiritual care.
[c] *P*<.0125 after Bonferroni adjustment was considered statistically significant.
[d] *P*<.0167 after Bonferroni adjustment was considered statistically significant.
[e] *P*<.025 after Bonferroni adjustment was considered statistically significant.

moral distress than did those in units with fewer beds. African American participants reported lower levels of moral distress than did participants of other races. Those with nursing diplomas reported less moral distress than did those with higher levels of education. Empowerment and facility type did not make significant unique contributions to the explanation of moral distress variation in the presence of the other factors. We found a positive correlation between HECS and PEI ($r=0.354$, $P<.001$).

Discussion

Novel findings of this study are that moral distress has an inverse relationship with ethical

Table 3
Regression analysis; dependent variable: score on Moral Distress Scale–Revised

Independent variable (N = 218)	R^2	Beta	R^2 change (sr^2)	df	F	P[a]
Overall	0.377	–	–	12 205	10.337	<.001[a]
Hospital Ethical Climate Survey		-0.379	0.120	1205	39.589	<.001[a]
Psychological Empowerment Instrument		0.024	0.000	1205	0.138	.71
Access to full palliative care team[b]		0.152	0.021	1205	6.791	.01[a]
Number of beds in unit		0.229	0.047	1205	15.335	<.001[a]
Race[c,d]		-0.193	0.031	1205	10.317	.002[a]
Years experience in intensive care unit		0.000	0.000	1205	0.000	>.99
Educational degree[d]		–	0.054	3205	5.932	.001[a]
Associate's vs diploma in nursing		0.238	0.023	–	7.431	.007[a]
BSN vs diploma in nursing		0.425	0.053	–	17.530	<.001[e]
MSN and beyond vs diploma in nursing		0.258	0.027	–	8.874	.003[e]
Facility[d]		–	0.005	2205	0.859	.42
Academic medical center vs nonteaching facility		0.084	0.004	–	1.199	.28
Teaching nonacademic center vs nonteaching facility		0.080	0.004	–	1.438	.23
Facility: tertiary referral center		-0.031	0.001	1205	0.209	.65

Abbreviations: BSN, bachelor of science in nursing; MSN, master of science in nursing.
[a] $P < .05$ is considered statistically significant.
[b] Specialist in palliative care: physician, nurse, social worker, spiritual care.
[c] African American vs white, Asian, and other.
[d] Categorical variables were dummy-coded for regression analysis into sets of dichotomous variables with a reference variable.
[e] $P < .0167$ is considered statistically significant.

climate, a curvilinear relationship with empowerment, and a positive correlation with access to palliative care. The strongest relationship was between moral distress and ethical climate, corroborating prior study findings. Each relationship contributes to the larger picture of the moral distress experience of ICU nurses. Education level, ethnicity, and number of ICU beds contributed to nurses' experience of moral distress, although ethical climate was the most important contributor.

Moral Distress and Ethical Climate

Our study findings validate and support data reflecting an inverse relationship in which participants who work in an ethically supportive environment experience lower levels of moral distress.[5,16,28] The finding of a small but significant correlation between levels of moral distress and the inclusion of nurses in daily patient rounds ($r = 0.2$, $P = .004$) supports the proposition that positive ethical climates and collaborative work environments reduce moral distress.[2,9,16,28] Recent data suggest that structured communication processes that include the full team in unit-based ethics conversations and goals-of-care rounds[29] or that offer ethics or moral distress consultation services[30] have a positive impact on factors contributing to moral distress. Inclusion of nurses in interdisciplinary rounds may help increase collaboration and communication about goals of care and ethical issues as they arise and may subsequently diminish moral distress triggers.

Moral Distress and Empowerment

A key component of the operational definition of moral distress is that the individual is prevented from fulfilling a perceived obligation.[7] Results from this study support those of previous studies that found an inverse relationship between empowerment and moral distress frequency.[12] Individual nurse empowerment has been a target of educational interventions, particularly related to end-of-life care and team building, yet without success in lowering moral distress levels.[3,17] Findings from this study suggest that increased knowledge and perceived empowerment are not sufficient to attenuate moral distress.

The curvilinear relationship between moral distress and empowerment suggests that participants who perceive very low empowerment and very high empowerment have lower moral distress scores than nurses who perceive moderately high empowerment. One possible interpretation is that nurses with very low perceived empowerment scores may also experience a lesser sense of moral obligation and in turn experience less moral distress, whereas those with very high empowerment scores may be able to deliver their desired level of care despite work environment

obstacles. These findings support AACN recommendations that moral distress must be addressed at both individual and organizational levels.[31]

Empowerment lost its significant unique contribution for explaining moral distress in the presence of the ethical climate variable, in part because of the correlation between ethical climate and empowerment. Our findings suggest that nurses who are moderately empowered may have an increased sense of obligation related to ethical delivery of patient care. However, in the face of less supportive ethical environments and if not fully empowered to act ethically, nurses may experience higher levels of moral distress.

Moral Distress and Access to Palliative Care

Our findings did not support the study hypothesis that nurses with access to palliative care resources would experience less moral distress. In fact, nurses who reported having access to a palliative care team experienced higher levels of moral distress. Additional factors that need to be considered are the level of integration of the palliative care teams into the ICU team and clinicians' beliefs and attitudes about palliative care. Collaboration and integration of care delivery teams affect moral distress.[2,11,16] Although the stated goal of palliative care includes interdisciplinary collaboration,[23,32] insufficient team integration may invoke conflict rather than support. The results of previous studies reflect the inconsistent presence of palliative care in the ICU.[21] In this study, 74% of participants reported participation in routine daily interdisciplinary patient care rounds, and of those, just 30% (52 of 175) included a palliative care team member. This may reflect an opportunity for further integration of palliative care in ICUs.

An alternative interpretation of the inverse correlation between moral distress and access to palliative care may be that the existence of a palliative care team elevates expectations of care for dying patients, but if the palliative care team is inactive in the unit or inaccessible, these elevated expectations may be unmet. This explanation is consistent with previous findings related to differences in care teams' understanding of obligations and beliefs of best practice for quality care delivery.[5] Another possible explanation lies in gaps in clinicians' understanding of the goal of palliative care and agreement about whether it is appropriate in the ICU. Study findings revealed an opportunity for education: more than 20% of ICU nurses did not feel confident to describe palliative care.

Most ICU palliative care services are provided via consultation.[21] In a consultation model, there will inevitably be differing perspectives on whether or not to include palliative care services. Without established, standardized consult triggers, inconsistent referral patterns allow varied expectations among individual clinicians that can foster conflict among team members. To facilitate clear expectations and establish a more integrated team approach, institutions should develop a standardized approach to palliative care referral and utilization.

Strengths and Limitations

A study limitation is the inability to link participants to specific facilities, limiting comparability of organizations other than within broad categories. Self-selection bias of participants who are more knowledgeable about or interested in palliative care may be present, limiting generalizability to the overall population of ICU nurses. Additionally, we did not collect information on beliefs about palliative care, and the study included only nurses.

A strength of this study is the broad sample of ICU nurses in the AACN nationwide database, which provides a range of perspectives across geographical and practice settings. The anonymity of a web-based survey may have encouraged more honest responses to sensitive questions about work environment and experiences regarding moral distress. Using updated, validated instruments advances the growing knowledge about moral distress and related factors. The novel findings of this study contribute to the understanding of nurse empowerment, experience of moral distress, and integration of palliative care into ICU care.

Summary

Discussions about moral distress continue to underscore the need for well-integrated teams to respectfully collaborate and communicate goals and strategies for individualized patient care. There remains a knowledge gap for nurses regarding the role and potential benefit of palliative care for patients in the ICU. Individual empowerment is a meaningful concept for ICU nurses, but it is not more important than the nurse's relationship to the team and unit. Our study findings support the incorporation of organizational support and team collaboration, including leadership, staff, and clinicians, for any attempted changes in a care delivery process when planning interventions to improve ICU end-of-life care or the

> Nurses reporting access to a full palliative care team reported higher levels of moral distress, contrary to the study hypothesis.

ethical climate in the workplace. Education about palliative care and ethics[33] may contribute to each individual's ability to work within upgraded expectations, but all organizational change must be actively supported by administrative and clinical teams.

We recommend further studies of the collaboration and integration of palliative care teams into ICUs. Qualitative studies may provide more insight into the role of palliative care in the ICU and relationships with nurses' moral distress. Also, exploring other components of access to and use of palliative care services from the perspective of primary and specialist palliative care providers may give insight into the support available for nurses delivering end-of-life care in the ICU.

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SEE ALSO
For more about moral distress, visit the *Critical Care Nurse* website, **www.ccnonline.org**, and read the article by Simmons et al, "The Role of Spirituality Among Military En Route Care Nurses: Source of Strength or Moral Injury?" (April 2018).

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