Relationships of Moral Distress Among Interprofessional ICU Teams

Heather Vincent, PhD, MSN, RN, CPHRM

University of Pittsburgh

Disclosures

- Learner Objectives:
  - Define moral distress
  - Identify situations impacting moral distress development
  - Imagine new strategies to minimize moral distress
- No conflicts, sponsorship or commercial support to disclose

Acknowledgements

- **Robert Wood Johnson Foundation**
- **University of Pittsburgh**
  - T32: NR008857 Technology: Research in Chronic and Critical Illness

Moral Distress Background

- Conflict of knowing the correct professional course of action but feeling constrained from following through with the actions deemed to be "right" (Epstein, Whitehead, Prompahakul , Thacker & Hamric, 2019)
- Influenced by internal, external, or organizational constraints (Jameton, 1984)
- Affects professionals in varying ways
- Originally examined exclusively in nurses
- Compromises professional integrity

Moral Distress Impact

- Effects can negatively impact patient care (Hamric, Borchers, & Epstein, 2012)
- May impact interactions between patients and providers (Bruce, Miller, Zimmerman, 2015)
- Influenced by futile care concerns (Epstein & Hamric,2009)
- May cause providers to leave the profession
- May impact team function

Study Purpose

Examine potential relationships:

1) Moral distress
2) Team demographics
3) Intent to leave position
4) Clinical scenarios on MDS-R
5) Team dynamics
6) Team communication

Aims

- Aim 1: Examine moral distress among interprofessionals working in four intensive care units of a single academic medical center hospital as measured by the MDS-R
- Aim 2: Explore differences in moral distress among interprofessional healthcare providers based on demographic characteristics and rankings of clinical scenarios on the MDS-R

Methods

Methods

- **Design**: Descriptive, cross-sectional, correlational study using survey methodology
- **Data Collection:** MDS-R and demographic survey
- **Setting:** Academic medical center hospital
- **Sample Size:** 223 participants

Participants and Setting

Participants

- RNs
- Physicians
- Social Workers
- Respiratory Therapists
- Dieticians
- Clergy

Units

- Medicine ICU
- Shock Trauma ICU
- Pediatric ICU
- Neonatal ICU

Criteria

Inclusion Criteria

- In-patient healthcare professionals consistently assigned to MICU, STICU, PICU, and NICU
- Self-reported team member of MICU, STICU, PICU, or NICU

Exclusion Criteria

- Supplemental staff
- Administrative leaders

Instruments

Demographic Survey

- Age
- Unit
- Gender
- Professional Role
- Level of Education
- Employment Status
- Specialty Certification
- Years of Experience in the ICU

Moral Distress Scale-Revised

- Product of revisions to Corley's 38-item MDS (2002)
- In use since 2012 (Hamric, Borchers, & Epstein, 2012)
- 21-item survey of common clinical events
- Calculates moral distress frequency, intensity & composite scores
- Reflects changing role of the healthcare provider
- 6 parallel surveys
  - Adult: Nurse, Physician, Other Healthcare Provider
  - Pedi: Nurse, Physician, Other Healthcare Provider
- Evidence of adequate reliability and validity

MDS-R Scoring

- 5-Point Likert scale
  - Frequency - 0 = *none* to 4 = very frequent
  - Intensity - 0 = none to 4 = greater extent

- Frequency and Intensity
  - Moral distress frequency (MDF)
  - Moral distress Intensity (MDI)
  - Multiplied and summed for each item
  - Frequency x intensity (fxi) score
  - Range from 0 to 16

- Composite Score
  - Calculated by adding each of the 21-item's fxi scores
  - Range from 0-336

Intent to Leave Position Question

- "Have you ever left or considered quitting a clinical position because of your moral distress with the way patient care was handled at your institution?"

- "Are you considering leaving your position now?"

Questions Added to MDS-R Survey

- "Team dynamics have affected my level of moral distress"
- "Team communication has affected my level of moral distress"
- Scaled answers:
  - Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree

Analysis

Descriptive Statistics

- **Descriptive Statistics**
  - Describe sample and determine moral distress scores (Aim 1)
  - Top five clinical situations causing greatest moral distress (Aim 2)
- **Independent Samples Student's *t*-tests**
  - Examine difference in moral distress between specialty certification, and gender (Aim 2)

Statistical Analysis

One-way Analysis of Variance

- Examine strength of correlation between moral distress scores and demographic characteristics

Spearman's Rank-Order Correlation Coefficient

- Determine correlation between moral distress scores, demographic characteristics, and intent to leave position
- Analyze relationship between moral distress scores and team dynamics and team communication responses

Study Results

Statistical Analysis

Participants:

- 697 healthcare professionals invited to participate
- 223 (32%) completed and returned surveys

Composite Moral Distress Scores:

- 71% (n=159) reported moral distress scores below 100
- 1% (n=3) reported moral distress scores over 200

Professional Roles:

- 96 RNs
- 26 RTs
- 79 physicians
- 6 social workers
- 10 clergy
- 6 dieticians

Demographic Characteristics

	N, (%)	Mean MDS-R score (±SD)
Age:		
20-27	45 (20)	69.04 (44.73)
28-35	**108 (48.4)**	**78.25 (44.73)**
36-41	20 (9.0)	73.55 (40.78)
42-46	20 (9.0)	93.00 (55.48)
47-53	16 (7.2)	77.56 (56.27)
54-70	14 (6.3)	58.71 (35.16)
Education:		
Associate	22 (9.9)	101.73 (51.70)
Bachelor	**90 (40.4)**	**83.36 (45.70)**
Master	32 (14.3)	64.28 (38.40)
Doctorate	**79 (35.4)**	**65.25 (39.79)**
Certification:		
Yes	**87 (39)**	**75.41 (45.67)**
No	136 (61)	76.40 (44.28)

Bolded text indicates highest percent

Demographic Characteristics

Category	N, (%)	Mean MDS-R score (±SD)
Role:		
RN	**96 (43)**	**85.83 (47.86)**
Physician	**79 (35.4)**	**67.05 (40.09)**
Social Worker	6 (2.7)	67.67 (54.69)
Clergy	10 (4.5)	57.20 (28.01)
RT	26 (11.7)	87.81 (39.53)
Years of ICU Experience		
1-5	**127 (57)**	**70.85 (43.12)**
6-10	37 (16.6)	89.86 (42.39)
11-15	25 (11.2)	70.08 (31.06)
16-20	13 (5.8)	78.38 (52.52)
21-25	8 (3.6)	123.25 (76.82)
26-40+	13 (5.8)	67.08 (37.99)
Gender		
Male	64 (28.7)	68.41 (42.88)
Female	**159 (71.3)**	**79.08 (42.88)**

Bolded text indicates highest percent

Roles and Units

Role (n)	**Mean MDS-R Score (SD), Range**
RT (n=26)	**87.81 (39.5), 27-194**
RN (n=96)	85.83 (47.8), 3-229
Social Worker (n=6)	67.67 (54.6), 7-138
Physician (n=79)	67.05 (40), 3-191
Clergy (n=10)	57.20 (28), 20-105
Dietician (n=6)	25.67 (18.5), 2-50
UNIT	
STICU (n=44)	**85.81 (48.1), 8–217**
MICU (n=40)	81.68 (48.8), 4-193
PICU (n=65)	74.17 (38.3), 4–159
NICU (n=74)	68.70 (44.9), 2-229

One-way ANOVA

Variable	Sum of squares	DF	F	P
Mean Moral Distress total between groups				
Education	37.44	3	5.849	0.001
Years of experience	30326.1	5	3.18	0.009
Role	38386.49	5	4.105	0.001

One-way ANOVA

Variable	Mean Difference	SE	P
Moral Distress difference between groups			
Education Associate vs Masters Associate vs Doctorate	 37.44 36.47	 12.00 10.44	 0.011 0.003
Years of experience 1-5 vs 21-25 11-15 vs 21-25	52.40 53.17	15.91 17.74	0.009 0.015
Role RN vs Dieticians RN vs MD RT vs Dieticians	 60.16 18.78 62.14	 18.19 6.56 19.58	 .014 .052 .021

Independent Samples Student's *t*- tests

	N	Mean Moral Distress	SD	Std. Error Mean	F	P	
Certification							
Yes	87	75.41	45.67	4.89	.000	8.72	**Not significant**
No	136	76.40	44.28	3.79			
Gender							
Female	159	79.08	42.88	3.40	1.21	.107	**Not significant**
Male	64	68.41	48.53	6.06			

Top Clinical Scenarios

- **"Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient"**
- **"Watch patient care suffer because of a lack of provider continuity"**
- **"Witness healthcare providers giving "false hope" to a patient or family"**
- **"Initiate extensive life-saving actions when I think they only prolong death"**
- **"Continue to participate in care for the hopelessly ill person who is being sustained on a ventilator when no one will make a decision to withdraw support"**
- **"Witness diminished patient care quality due to poor team communication"**

Top Clinical Situation	Nurse MDS-R Mean (SD)	#	Physician MDS-R Mean (SD)	#	Social Worker MDS-R Mean (SD)	#	Clergy MDS-R Mean (SD)	#	Respiratory Therapist MDS-R Mean (SD)	#	Dietician MDS-R Mean (SD)	#
"Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient."	**9.36 (4.7)**	**1**	**7.04 (4.5)**	**1**	**7.67 (5.5)**	**1**	**7.30 (5.8)**	**1**	**9.08 (4.5)**	**1**	3.17 (2.7)	3
"Initiate extensive life-saving actions when I think they only prolong death."	8.35 (4.7)	2	6.56 (4.8)	2	6.67 (6.5)	3	4.40 (5.1)	4	8.81 (4.7)	2	2.67 (2.1)	4
"Continue to participate in care for a hopelessly ill person who is being sustained on a ventilator, when no one will make a decision to withdraw support."	8.06 (5.0)	3	5.32 (4.5)	3	6.33 (5.8)	4	7.10 (3.1)	2	8.69 (4.7)	3		
"Witness healthcare providers giving "false hope" to a patient or family."	6.89 (4.8)	4			7.33 (3.6)	2	4.70 (3.1)	3			1.50 (1.3)	5
"Watch patient care suffer because of a lack of provider continuity."			4.63 (4.2)	5	6.33 (6.2)	4					**4.17 (4.4)**	**1**
"Carry out the physician's orders for what I consider to be unnecessary tests and treatments."									6.27 (4.3)	4		

Moral Distress Scores

- All participants reported moral distress
- Differences between professional roles
- Difference between levels of education
- Participants with more education reported lower moral distress
- Participants with more years of experience in the ICU reported higher moral distress

Moral Distress and Demographic Variables

- Relationship between moral distress
  - Professional role
  - Level of education

- Difference in moral distress between providers
  - RTs and RNs reported highest moral distress
  - Differed significantly from dieticians and clergy
  - Dieticians reported significantly lower moral distress than RNs and RTs

Intent to Leave

- Higher moral distress in those considering leaving a position now (F=8.96, *p*=.000)
  - 23 reported considering leaving now (mean MDS-R =106.13)
  - 190 reported not considering leaving now (mean MDS-R=70.92)
  - 10 did not answer the question

Team Dynamics/Team Communication

- Relationship between moral distress scores and team dynamics/team communication
  - 18% (n=40)"Strongly Agreed" team dynamics and team communication affected their moral distress
  - 46% (n=103)"Agreed" that team dynamics and team communication affected their level of moral distress
    - Moral distress lowest in this group
  - 4% (n=9)of the participants "Strongly Disagreed"
  - 12% (n-28)"Disagreed" that team dynamics and team communication affected their level of moral distress

What This Study Adds

- Addresses the gap of moral distress in teams
- Purposeful examination of team communication and team dynamics
- Unique perspectives add to understanding of contributing factors of moral distress
- Written in text reflects clinical situations not fully explained by the MDS-R survey

Limitations

- Sampling bias
  - Single academic hospital
- Results may not be generalizable
- Self-report questionnaire
  - Vulnerable to reporting and response biases
- Response set biases may have been encountered
- Potential for social desirability response bias

Recommendations

- Debrief after critical situations
- Improve team dynamics and communication using narratives or storytelling
- Provide education to improve ethical understanding, ethical skills and communication
- Facilitate interdisciplinary dialogue
- Encourage mentorship and supportive organizational culture

Acknowledgements

- **Dissertation Committee**
  - Joan Engebretson, DrPH, AHN-BC, RN, FAAN
  - Beth Ulrich, EdD, RN, FACHE, FAAN
  - Deborah Jones, PhD, MSN, RN

References

Bruce, C. R., Miller, S. M., & Zimmerman, J. L. (2015). A qualitative study exploring moral distress in the ICU team: the importance of unit functionality and intra-team dynamics. *Critical Care Medicine Journal, 43*(4), 823-831. doi: 10.1097/CCM.0000000000000822

Corley, M. C. (2002). Nurse moral distress: a proposed theory and research agenda. *Nursing Ethics, 9*(6), 636-650.

Epstein, E. G., & Hamric, A. B. (2009). Moral distress, moral residue, and the crescendo effect. *The Journal of Clinical Ethics, 20*(4), 330-342.

Epstein EG, Whitehead PB, Prompahakul C, Thacker LR, Hamric AB. Enhancing Understanding of Moral Distress: the Measure of Moral Distress for Health Care Professionals. *AJOB Empirical Bioethics*. 2019. doi:10.1080/23294515.2019.1586008

Hamric, A. B., Borchers, C. T., & Epstein, E. G. (2012). Development and testing of an instrument to measure moral distress in healthcare professionals. *American Journal of Bioethics Primary Research, 3*(2), 1-9.

Jameton, A. (1984). Nursing practice: the ethical issues. Englewood Cliffs, NJ: Prentice Hall.